

LOS RIOS COMMUNITY COLLEGE DISTRICT

SPRING BOARD RETREAT AGENDA

Friday, March 11, 2022

Closed Session: 5:30pm

Reconvene in Open Session: 6:15pm (or later; at the conclusion of Closed Session)

Saturday, March 12, 2022

9:00am

Meeting Location:

Los Rios Community College District

Board Room

1919 Spanos Court

Sacramento, CA 95825

Masks are required for all students, employees, and visitors in any indoor space at Los Rios Community College District, regardless of vaccination status.

FRIDAY, MARCH 11, 2022

1. CALL TO ORDER

Board President

2. ORAL COMMUNICATIONS

The public may comment on any items within the Board's jurisdiction, even if the items are not on the agenda only during this portion of the meeting. However, the law prohibits action by the Board on non-agenda items. Speakers are limited to up to three minutes. If you wish to speak to a particular item on the current board agenda, your comments will be taken up at the time the Board takes up that item.

Members of the public have two options to offer public comment:

- 1. Email your full name and the matter you wish to speak about to board@losrios.edu by 3:00pm on the day of the meeting, and you will be called on by the Board President during this portion of the meeting.*
- 2. Submit a yellow "Speaker's Card" to the Clerk of the Board before the meeting is called to order.*

3. CLOSED SESSION

Closed session may be held as authorized by law for matters including, but not limited to collective bargaining (Rodda Act), Education Code provisions, pending litigation, etc. Closed Session will be held via Zoom Conference and not be open to the public.

A. Public Employee Performance Evaluation: Chancellor (Government Code section 54957)

4. FUTURE DIRECTIONS DISCUSSION

A. 2022-23 Budget Outlook	Mario Rodriguez
B. Los Rios Police Department Update	Mario Rodriguez
C. Philanthropy Update	Paula Allison
D. Board Requested Information Items and Future Agenda Items	Brian King
E. Board Self Evaluation	Brian King

NOTE: Board action is needed to continue the meeting to the following day.

SATURDAY, MARCH 12, 2022

5. UPDATE AND DISCUSSION OF DISTRICT INITIATIVES	
A. Financial Aid and Admissions & Records Improvements (9am)	Jamey Nye
B. Dual Enrollment (9:30am)	College Presidents
C. K16 Collaborative Grant, Sacramento Region (10am)	Brian King
D. Outreach Overview (10:30am)	College Presidents
E. Strengthening Online Education (11:30am)	Jamey Nye
F. Open Educational Resources (12pm)	College Presidents
6. ADJOURNMENT (12:30pm – lunch)	

LOS RIOS BOARD OF TRUSTEES			
Tami Nelson President • Area 7	John Knight Vice President • Area 3	Dustin Johnson • Area 1 Robert Jones • Area 2 Kelly Wilkerson • Area 4	Pamela Haynes • Area 5 Deborah Ortiz • Area 6 Jenn Galinato • Student Trustee
Regular Board Meetings are generally held every second Wednesday of the month at 5:30 pm • <i>Note:</i> Meeting times and locations are subject to change. For current information, call the District Office at (916) 568-3039. Next Regular Board Meeting: March 16, 2022			
Public records provided to the Board for the items listed on the open session portion of this agenda will be posted on the District’s website: www.losrios.edu as soon as they are available.			
Help Us Help You			
Los Rios Community College District strives to make reasonable accommodations in all of its programs, services and activities for all qualified individuals with disabilities. Notification (568-3039) 48 hours in advance will enable the District to make arrangements to ensure meeting accessibility. The District will swiftly resolve those requests consistent with the ADA and resolving any doubt in favor of accessibility.			

**Los Rios Community College District
Spring Board Retreat
March 2022**

Agenda Materials Table of Contents

4.A 2022-23 Budget Outlook

1. [CCCCO's Governor's Budget Overview](#)
2. [LAO's Budget Analysis of Major CCC Proposals](#)
3. [Full-Time Equivalent Students Update](#)

4.B Los Rios Police Department Update

1. [CCCCO Call to Action: Reimagining Campus Policing Task Force Recommendations](#)
2. [Proposed Revisions to Title 5 Regulation Related to Campus Climate and Public Safety](#)
3. [LRPD Reforms Update](#)
4. [LRPD Staffing](#)

4.C Philanthropy Update

1. [Athletics Fundraising](#)
2. [Grant Summary](#)
3. [Student Emergency Fund Update](#)
4. [Direct Mail Sample](#)
5. [Alumni Newsletter Sample](#)
6. [Promise to Career Sponsorship Packet](#)

4.D Board Requested Information / Future Agenda Items

1. [Future Agenda Items Requested](#)

4.E Board Self Evaluation

1. To be Distributed at Retreat

5.A Financial Aid and Admissions & Records Improvements

1. [Admissions & Records and Financial Aid Redesign Overview](#)
2. [Admissions and Financial Aid Redesign Update](#)

5.B Dual Enrollment

1. [Career Ladders Project Dual Enrollment Resources](#)
2. [Pathways to Success Presentation \(Dallas College\)](#)
3. [AIR Dual-Credit Education Programs in Texas](#)

5.C K16 Collaborative Grant, Sacramento Region

1. [Regional K16 Collaboratives Grant Overview](#)
2. [Community Economic Resilience Fund \(CERF\) Overview](#)
3. [CERF FAQs](#)
4. [Recover with Equity Taskforce](#)
5. [Capitol Impact Strengths](#)
6. [Capitol Impact Success Stories](#)

5.D Outreach Overview

1. [Los Rios College Presidents' Outreach Project White Paper](#)
2. [COMPASS Guide to Successful High School Outreach](#)
3. [A College Knowledge Outreach Program for Latino Immigrant Parents: Process and Evaluation](#)
4. [Evergreen Valley College Outreach & Recruitment Services Overview](#)
5. [College of the Canyons Outreach Roadshow](#)
6. [Cerritos College Outreach & Recruitment Plan](#)
7. [List of Outreach links](#)
8. [Marketing and Advertising Update](#)

5.E Strengthening Online Education

1. [Los Rios Online Training and Resources for Faculty and Students](#)

5.F Open Educational Resources

1. [CCCO open Education Resources](#)
2. [\\$115M California OER Experiment](#)
3. [CA Academic Senate Overview of OER](#)
4. [CCC OER Commons](#)

LOS RIOS COMMUNITY COLLEGE DISTRICT

BOARD OF TRUSTEES ANNUAL SPRING RETREAT

SUBJECT: Future Directions Discussion	DATE: March 11, 2022
AGENDA ITEM 4	TYPE OF BOARD CONSIDERATION: Board Discussion

BACKGROUND

It is necessary for the Board of Trustees of the Los Rios Community College District to periodically discuss the future directions of the District.

STATUS

The Board of Trustees will provide the Chancellor direction on the future of the District on items including, but not limited to:

- A. 2022-23 Budget Outlook
- B. Los Rios Police Department Update
- C. Philanthropy Update
- D. Board Requested Information Items and Future Agenda Items
- E. Board Self Evaluation

Joint Analysis

Governor's January Budget Update & Trailer Bills

Released February 10, 2022¹



California Community Colleges



ACBO.ORG
ASSOCIATION OF CHIEF BUSINESS OFFICIALS



ASSOCIATION OF CALIFORNIA
COMMUNITY COLLEGE ADMINISTRATORS



COMMUNITY COLLEGE
LEAGUE OF CALIFORNIA

¹ This edition updates the January 10, 2022 version and includes analyses of Trailer Bill Language released February 1-7, 2022.

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Purpose of Report

This analysis was prepared by the California Community Colleges Chancellor's Office (Chancellor's Office) with support from the:

- Association of California Community College Administrators (ACCCA),
- Association of Chief Business Officials (ACBO), and
- Community College League of California (League).

Its purpose is to provide information about the Governor's January budget proposal as a common resource for each organization's further analyses and advocacy efforts. Over the next several months, updated analyses will describe the proposed trailer bills, the Governor's May Revision, and the enacted budget.

Key Updates

Much of the information contained in this analysis remains unchanged as of the January 10, 2022 version. However, a new section was added that summarizes the Legislative Analyst Office's analysis of the budget proposal, particularly comments related to the budget for the community colleges (see page 23). In addition, updates were made to the following topics in the *Major Policy Decisions* section (beginning on p. 12):

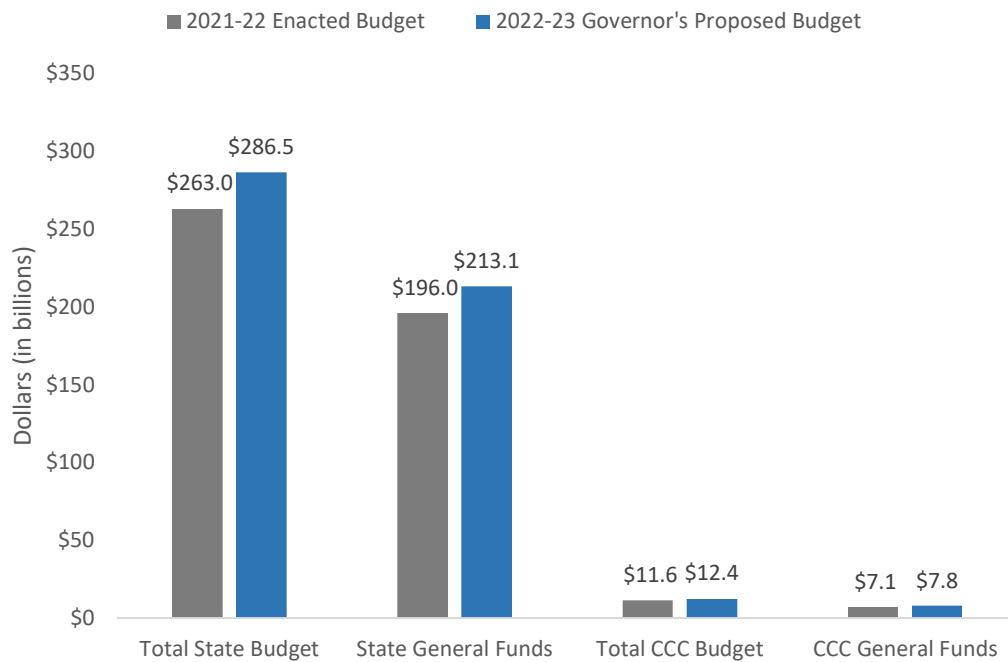
- College Affordability, related to proposals to provide emergency grants to AB 540 students;
- Addressing Student Needs, related to continuing investment in student housing;
- Streamlining Academic Pathways, related to implementing common course numbering, supporting transfer reforms, investing in technology to navigate pathways technology, supporting teacher preparation partnerships, and grants for high-skilled career pathways; and
- Deferred Maintenance efforts.

Summary of Key Budget Changes

Today, Governor Newsom released his budget proposal for the 2022-23 fiscal year. Following are some key changes in the proposal compared to the enacted budget for 2021-22.

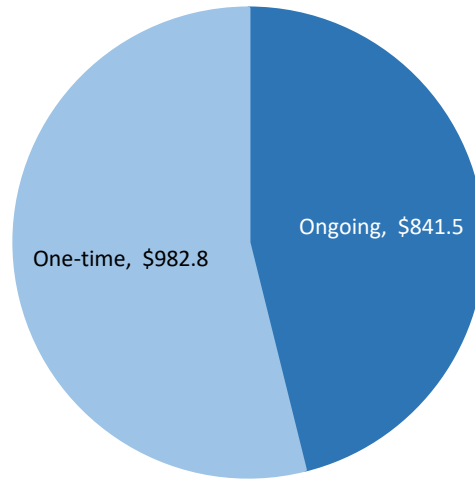
- Under the proposal, the overall state budget would be higher than in 2021-22, increasing by about 9% to \$286 billion. General Fund spending would increase by about \$3 billion (1.5%) to \$213 billion.

Figure 1: Proposed 2022-23 budget reflects surplus of more than \$45 billion (dollars in billions).



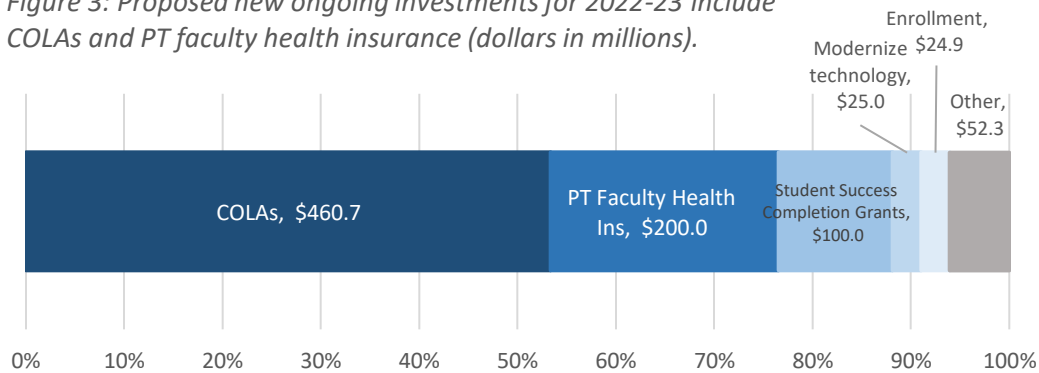
- The budget proposal for the California Community Colleges is shaped by a multi-year “road map to California’s future” which will be refined in advance of the May Revision. With a focus on equity and student success, the framework builds on existing efforts toward achieving the *Vision for Success* goals, while establishing some additional expectations for the system over the next several years. Key goals and expectations in the road map include increased collaboration across segments and sectors to enhance timely transfer; improved time-to-degree and certificate completion; closure of equity gaps; and better alignment of the system with K-12 and workforce needs.
- The proposed budget for 2022-23 provides about \$1.8 billion in Proposition 98 augmentations over the prior year, including \$842 million (46%) in ongoing spending and \$983 million (54%) in one-time funding.

Figure 2: Majority of new Proposition 98 funding for 2022-23 represents one-time investments (dollars in millions).



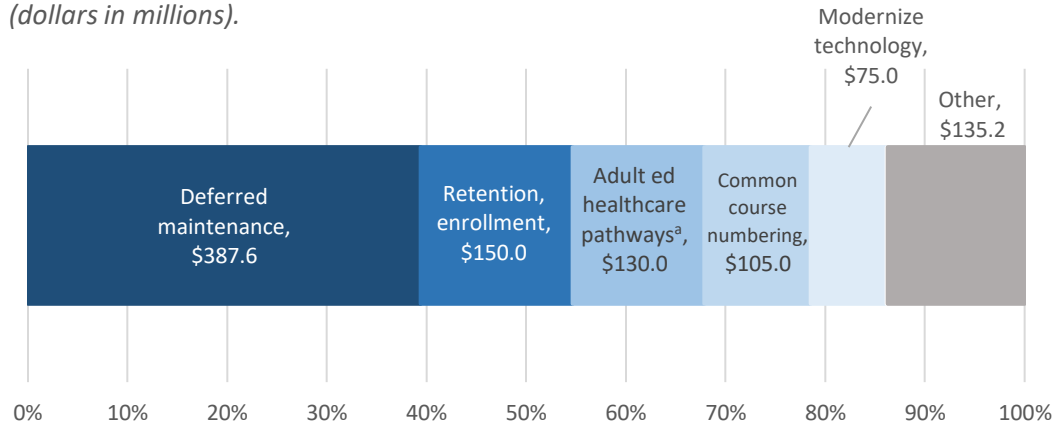
- The proposal for additional ongoing spending includes \$409.4 million for a 5.33% cost-of-living adjustment (COLA) for community college apportionments, and \$24.9 million for systemwide enrollment growth of 0.5%. Additional ongoing funds are proposed to augment the Part-Time Faculty Health Insurance Program, cover the added costs for Student Success Completion Grants related to expanded Cal Grant eligibility, and support technology modernization.

Figure 3: Proposed new ongoing investments for 2022-23 include COLAs and PT faculty health insurance (dollars in millions).



- One-time funding proposals are dedicated to deferred maintenance, student retention and enrollment efforts, implementation of common course numbering, technology modernization, and several investments focused on education pathways.

Figure 4: Proposed one-time investments for 2022-23 of \$983 million include deferred maintenance and retention/enrollment strategies (dollars in millions).



^a A portion of the funding for Adult Ed programs goes to community colleges, with the remainder going to K-12.

- The Governor’s proposal includes \$373 million in capital outlay funding from Proposition 51 to support the working drawings and construction phases for 18 continuing projects.
- The proposed budget invests an additional \$1.4 million in state operations to support nine (9) new positions in 2022-23, with ongoing conversations about additional resources to be included in the May Revision. In addition, another \$1.4 million is planned for 2023-24 to support 10 more new positions. The added resources are intended to support modernization efforts and increased state operations capacity to lead the system in achieving its *Vision for Success* goals and other state priorities.

State Budget Overview

The Governor’s Budget proposes additional ongoing resources of approximately \$840 million to California Community Colleges appropriations and categorical programs, as compared to the 2021 Budget Act.

BUDGET FOCUSED ON EQUITABLE RECOVERY FROM THE PANDEMIC

The 2021 Budget Act reflected a correction to the overestimated deficit for the prior year (2020-21) and substantial recovery to the state’s finances following the pandemic-induced recession. It focused investments on supporting California families and businesses that continued to struggle, and made deposits to reserves as protection against the next economic downturn. Some of the main priorities in the Governor’s Budget are aimed at continuing efforts to support pandemic recovery. The proposal includes:

- A \$2.7 billion Emergency Response Package, including a \$1.4 billion emergency appropriation request, to bolster COVID-19 testing, accelerate vaccination efforts, support healthcare workers, and battle misinformation;
- \$1.5 billion over two years to accelerate the development of affordable housing;
- \$1.2 billion to fight and prevent wildfires, including funds for new state fire crews, helicopters, and other equipment;

- \$750 million for drought response, including funds for water conservation and efficiency, replenishing groundwater supplies, and helping farmers; and
- Investments in rural workforce development programs that would assist with climate change response and fire prevention.

Economic and Budget Conditions are Positive

The budget outlook has improved since the 2021 Budget Act, with rapidly growing revenues related to strong growth in retail sales and stock prices. State revenues are higher than predicted by over \$10 billion in 2021-22 compared to estimates in the Budget Act, according to the Legislative Analyst's Office (LAO). Much of the revenue gains have been in sales taxes and income tax withholding, which the LAO notes are historically more stable revenue streams. It notes that lawmakers will have to consider the implications of the State Allocation Limit (SAL or Gann Limit), approved as a constitutional amendment by the voters in 1979 to limit state spending. Absent specific policy decisions to exempt spending from the SAL, half of the revenue above the limit must be returned to the taxpayers with the other half going to K-12 and community colleges.

The Governor's Budget is based on a projected surplus of \$45.7 billion for 2022-23 and nearly \$35 billion in reserves, including \$21 billion in the state's Rainy Day Fund. As expected by the LAO, the Administration estimates that the state will exceed the Gann Limit over the 2020-21 and 2021-22 fiscal years, and intends to include proposals to address the issue in the May Revision

The budget summary notes that the economic forecast used to develop the budget does not consider the surge of the Omicron variant, so the COVID-19 pandemic remains a risk to the forecast. Capital gains revenues are approaching a peak level, and a stock market reversal could lead to a substantial decline in revenues.

Federal Funds Have Continued Impact on the State Budget

The federal government took a number of actions during 2020 and 2021 that continue to have implications for the state budget for 2022-23. The American Rescue Plan (ARP) provided about \$27 billion to the state of California, some of which was used to offset existing General Fund costs. In addition, the ARP included an enhanced federal match for state Medicaid programs (including home and community-based services) through the end of the national public health emergency. Together these actions contributed to state savings during 2020-21 and 2021-22, and to the discretionary surplus for 2022-23.

PROPOSITION 98 ESTIMATE INCREASES

Minimum Guarantee for Community Colleges Increases by 5%

Each year, the state calculates a "minimum guarantee" for school and community college funding based on a set of formulas established in Proposition 98 and related statutes. To determine which formulas to use for a given year, Proposition 98 lays out three main tests that depend upon several inputs including K-12 attendance, per capita personal income, and per capita General Fund revenue. Depending on the values of these inputs, one of the three tests becomes "operative" and determines the minimum guarantee for that year.

The state rarely provides funding above the estimated minimum guarantee for a budget year. As a result, the minimum guarantee determines the total amount of Proposition 98 funding for schools and community colleges. Though these formulas determine total funding, they do not prescribe the distribution of funding within the segments. The Governor and Legislature have significant discretion in allocating funding to various programs and services.

Table 1 shows the budget’s estimates of the minimum guarantee for the prior, current, and budget years. The community college share of Proposition 98 funding is at the traditional share of 10.93% in each of these years. Included in this share is some K-12 funding, including a portion of Adult Education funding, a small amount of pass-through funding for school district-based apprenticeship programs and funding for K-12 Strong Workforce programs.

Table 1: California Community Colleges Proposition 98 Funding by Source (In Millions)

Source	2020-21 Revised	2021-22 Revised	2022-23 Proposed	Change From 2021-22 Amount	Change From 2021-22 Percent
ALL PROPOSITION 98 PROGRAMS					
General Fund	\$70,035	\$71,845	\$73,134	\$1,289	2%
Local property tax	25,901	27,219	28,846	1,627	6%
Totals	\$95,936	\$99,064	\$101,980	\$2,916	3%
COMMUNITY COLLEGES ONLY ^a					
General Fund	\$7,392	\$7,528	\$7,827	\$299	4%
Local property tax	3,374	3,546	3,766	220	6%
Totals	\$10,766	\$11,075	\$11,593	\$519	5%

^a CCC totals include resources that go to the K-12 system via the Adult Education, Apprenticeship, and K-12 Strong Workforce programs.

Estimates for Prior and Current Years Have Increased

Estimates of the minimum guarantee for 2020-21 and 2021-22 have increased substantially compared to projections when the 2021-22 budget was enacted in June of last year, which can occur if school enrollment, economic growth, or state revenues turn out to be different than expected. Specifically, the revised estimates for 2020-21 and 2021-22 are higher than was projected in June because of stronger than expected revenues.

SCFF District Revenue Protections Extended in Modified Form

In response to the disruptions of the COVID-19 pandemic, providing fiscal stability was a top priority. While the temporary protections under the COVID-19 Emergency Conditions

Allowance expire at the end of 2021-22, the 2021 Budget Act extended the Student Centered Funding Formula's (SCFF) existing minimum revenue (hold harmless) provision by one year, through 2024-25. Under this provision, districts will earn at least their 2017-18 total computational revenue, adjusted by COLA each year, if applicable.

The Governor's Budget proposes to extend the revenue protections in a modified form to avoid creating sharp fiscal declines in 2025-26. Under the proposal, a district's Total Computational Revenue (TCR) in 2024-25 funding would represent its new "floor," below which it could not drop. Moving forward, districts would receive no less than they received in 2024-25 and capture increases to formula funding rates.

As outlined in trailer bill, the "floor" for each district would be determined by providing districts the highest of three calculations:

- the SCFF formula as calculated by Base, Supplement and Success, or
- one-year TCR stability as calculated by prior year SCFF formula, or
- the 2024-25 fiscal year maximum TCR.

SCFF funding rates would continue to increase to reflect the statutory COLA. The revised hold harmless provision would no longer automatically include COLA adjustments, as is the case with the current provision in effect through 2024-25.



The proposal also indicates support for the recommendation made by the Student Centered Funding Formula Oversight Committee to integrate an unduplicated first-generation student metric within the SCFF's supplemental allocation when a reliable data source is available.

Required Transfer to Public School System Stabilization Account (PSSSA)

Proposition 2, approved by voters in November 2014, created the PSSSA, a new state reserve for schools and community colleges. Under Proposition 2, transfers are made to this account only if several conditions are satisfied. That is, the state must have paid off all Proposition 98 debt created before 2014-15, the minimum guarantee must be growing more quickly than per capita personal income, and capital gains revenues must exceed 8% of total revenues.

Though these transfers change *when* the state spends money on schools and community colleges, they do not directly change the *total amount* of state spending for schools and

community colleges across fiscal years. Specifically, required transfers to the PSSSA count toward Proposition 98 totals in the year the transfer is made. As a result, appropriations to schools and community colleges in such a year could be lower than otherwise required by Proposition 98. However, in a year when money is spent out of this reserve, the amount transferred back to schools and community colleges is over and above the Proposition 98 amount otherwise required for that year.

California Community Colleges Funding

The Governor’s Budget includes \$841.5 million in ongoing policy adjustments for the community college system, compared to 2021-22 expenditure levels, as reflected in Table 2. The system would receive approximately \$1.8 billion in additional funding for one-time and ongoing programs and initiatives.

Table 2: Proposed 2022-23 Changes in Proposition 98 Funding for the System (In Millions)

TECHNICAL ADJUSTMENTS	
Student Centered Funding Formula (SCFF) other base adjustments (aside from COLA and Growth)	\$3.0
Subtotal Technical Adjustments	\$3.0
POLICY ADJUSTMENTS	
Ongoing (Proposition 98)	
Provide 5.33% COLA for SCFF	\$409.4
Augment Part-Time Faculty Health Insurance Program	\$200.0
Augment Student Success Completion Grants	\$100.0
Provide 5.33% COLA for Adult Ed	\$29.9
Modernize CCC technology and protect sensitive data	\$25.0
Fund 0.5% enrollment growth for SCFF	\$24.9
Increase support for financial aid administration	\$10.0
Increase support for NextUp Program	\$10.0
Implement Equal Employment Opportunity best practices	\$10.0
Provide 5.33% COLA for Extended Opportunity Programs and Services (EOPS)	\$8.3
Provide 5.33% COLA for Disabled Students Programs and Services (DSPS)	\$6.7
Provide 5.33% COLA for Apprenticeship	\$1.6
Provide 5.33% COLA for CalWORKs Student Services	\$2.5
Provide 5.33% COLA for Mandates Block Grant and Reimbursements	\$2.1
Expand African American Male Education Network and Development (A2MEND) student charters	\$1.1
Provide 5.33% COLA for Childcare Tax Bailout	\$0.2
Subtotal Ongoing (Proposition 98) Policy Adjustments	\$841.5

One-Time (Proposition 98)	
Address deferred maintenance	\$387.6
Support retention and enrollment strategies	\$150.0
Support health-care focused vocational pathways in Adult Ed ^a	\$130.0
Implement common course numbering systemwide	\$105.0
Modernize CCC technology and protect sensitive data	\$75.0
Implement transfer reforms of AB 928	\$65.0
Implement program pathways mapping technology	\$25.0
Provide emergency financial assistance grants to AB 540 students	\$20.0
Implement pathways grant program for high-skilled careers	\$20.0
Support Teacher Credentialing Partnership Program	\$5.0
Study Umoja Program best practices	\$0.2
Subtotal One-Time Policy Adjustments	\$982.8
TOTAL CHANGES	\$1,827.3

^a Funding for health care pathways in Adult Ed would be spent over three years.

The estimated and proposed Total Computational Revenue (TCR) for the SCFF increases by \$437.3 million from \$7.9 billion to \$8.4 billion. This reflects a proposed COLA of 5.33% (\$409.4 million) and FTES growth of 0.5% (\$24.9 million) and modified estimates for hold harmless and other underlying estimation factors. Further, the following adjustments are reflected in associated offsetting revenues (all comparisons are from the 2021-22 Budget Act to the 2022-23 Governor’s Budget proposal):

- Property tax revenues are estimated to increase by \$230.5 million from \$3.54 billion to \$3.77 billion.
- Enrollment Fee revenues are estimated to decrease by \$2.6 million from \$441.5 million to \$438.9 million.
- Education Protection Account funding is estimated to increase by \$218.5 million from \$1.37 billion to \$1.58 billion.

Table 3 reflects the final SCFF rates for 2020-21 and 2021-22, along with the projected rates for 2022-23, as modified by COLA and other base adjustments. The distribution of funds across the three allocations (base, supplemental, and student success) is determined by changes in the underlying factors.

Table 3: Proposed 2022-23 Student Centered Funding Formula Rates (rounded)

Allocations	2020-21 Rates	2021-22 Rates	Proposed 2022-23 Rates	Change From 2021-22	Percent Change
Base Credit ^a	\$4,009	\$4,212	\$4,436	\$224	5.33%
Supplemental Point Value	948	996	1049	53	5.33%
Student Success Main Point Value	559	587	618	31	5.33%
Student Success Equity Point Value	141	148	156	8	5.33%
Incarcerated Credit ^a	5,622	5,907	6,222	315	5.33%
Special Admit Credit ^a	5,622	5,907	6,222	315	5.33%
CDCP	5,622	5,907	6,222	315	5.33%
Noncredit	3,381	3,552	3,741	189	5.33%

^a Ten districts receive higher credit FTE rates, as specified in statute.

Appendix B compares the Governor’s proposed funding adjustments for the system in 2022-23 to the Board of Governors’ budget request. Below we highlight a few of the administration’s more significant policy decisions and related information. Later in this analysis, we detail local funding by program, capital outlay funding, and state operations.

MAJOR POLICY DECISIONS FRAMED AROUND “ROAD MAP TO CALIFORNIA’S FUTURE”

The budget proposal is shaped by a multi-year road map that enhances the system’s ability to prepare students for California’s future, a collaborative plan developed by the Administration and the Chancellor’s Office. With a focus on equity and student success, the framework builds on existing efforts toward achieving the Vision for Success goals, while establishing some additional expectations for the system over the next several years. To fund this collaborative plan, the budget includes additional Proposition 98 resources for the colleges as well as additional resources for the Chancellor’s Office to better support the colleges in meeting the *Vision for Success* goals and newly established expectations. The proposal is made in the context of a goal of achieving 70% postsecondary degree and certificate attainment among working-age Californians by 2030, a recommendation of the Governor’s Council on Post-Secondary Education, which is accompanied by proposals for multi-year compacts with the University of California (UC) and California State University (CSU) along with the road map for the community college system.

Road Map Includes New Goals and Expectations

Key goals and expectations in the road map include increased collaboration across segments and sectors to enhance timely transfer; improved time-to-degree and certificate completion; closure of equity gaps; and better alignment of the system with K-12 and workforce needs.

Higher Expectations for Student Educational Outcomes. The road map seeks to:

- Increase the percentage of students earning degrees, certificates and specific skill sets for in-demand jobs by 20% by 2026;
- Decrease the median units to completion by 15%, and establish systemwide stretch goals regarding the number of students completing or transferring within the minimum amount of time necessary;
- Increase the number of transfers to the UC or CSU in proportion to enrollment growth in those systems; and
- Annually publish, for all colleges, the 2-year associate degree graduation rate and the share of first-time students with sophomore standing when entering their second year, disaggregated for underrepresented and Pell students.

Advancing Equity. The road map intends to:

- Improve systemwide graduation rates, transfer rates, and time to completion among underrepresented and Pell students to meet the average of all students by 2026; and
- Close equity gaps in access to dual enrollment programs.

Expects Increased Intersegmental Collaboration. The road map expects:

- Full participation in the Cradle-to-Career Data System;
- Efforts to adopt a common intersegmental learning management system;
- Collaboration with the UC and CSU on a higher education student success dashboard within the Cradle-to-Career framework to identify and address equity gaps; and
- Efforts to establish an integrated admissions platform common to the UC, CSU and community colleges.

Seeks improved Workforce Preparedness. The road map intends to support workforce preparedness and high-demand career pipelines, including goals to:

- Increase the percentage of K-12 students who graduate with 12 or more college units through dual enrollment by 15%;
- Establish a baseline for credit-for-prior-learning offerings and increase the offerings annually, and launch 10 new direct-assessment competency-based education programs;
- Increase the percentage of completing students who earn a living wage by 15%;
- Focus on establishing or expanding programs that address workforce needs in healthcare, climate response, education and early education; and
- Establish pathways in those fields from high school through university, including development of Associate Degree for Transfer and transfer pathways along with

dual enrollment opportunities that ensure transfer of community college credits toward degree programs.

Apportionments Receive 5.33% COLA and 0.50% Growth

The proposal includes an increase of \$24.9 million ongoing to fund 0.5% enrollment growth and \$409.4 million ongoing to support a 5.33% COLA for apportionments, the same COLA proposed for K-12. Decisions about any COLA were historically made by the Legislature during the annual budget process, but the budget plan in 2019-20 implemented a new policy for the K-12 system's Local Control Funding Formula (LCFF). Under this policy, LCFF receives an automatic COLA unless the minimum guarantee is insufficient to cover the associated costs. In that case, the COLA would be reduced to fit within the guarantee. The statute is silent on community college programs, but the proposed COLA for community colleges for 2022-23 matches that provided for K-12, as was the case in the Enacted Budget for the current year.

College Affordability Efforts Continue

Expands Support for Completion Grants. Related to the 2021 Budget Act's expansion of the Cal Grant entitlement program, the Governor's Budget includes \$100 million **ongoing** for students eligible for the Student Success Completion Grant due to expanded Cal Grant eligibility for community college students.

Provides Emergency Financial Assistance for AB 540 Students. The proposal includes \$20 million **one-time** to support emergency student financial assistance grants to eligible AB 540 students. According to trailer bill language, the chancellor would allocate funds to districts based on the headcount number of students who meet the requirements for an exemption from paying nonresident tuition under §68130.5 of the California Education Code and meet the income criteria applicable to the California Dream Act application. Financial assistance grants could be provided to such students who self-certify that they meet the following conditions:

- Currently enrolled in at least 6 semester units (or the quarterly equivalent);
- Demonstrate an emergency financial aid need; and
- Earned a 2.0 grade point average at their current or prior institution in one of their previous three semester terms (or four quarter terms) OR is a student who is receiving additional support or services through a community college's Disabled Student Programs and Services.

Expands Support for Financial Aid Administration. The budget proposal includes \$10 million **ongoing** to augment resources for community college financial aid offices.

Makes Other Investments in College Affordability. The Governor's Budget includes several other investments in college affordability, including an increase of \$515 million ongoing to support a modified version of the Middle Class Scholarship Program, \$300 million one-time for the Learning-Aligned Employment Program administered by the California Student Aid Commission, and \$10 million for outreach to assist student loan borrowers.

Addressing Student Needs Remains a Concern

Builds on Efforts to Retain and Enroll Students. The budget proposal includes \$150 million in **one-time** funds for student retention and enrollment efforts, building on the \$120 million included in the 2021 Budget Act (\$20 million of which was provided in an Early Action package in 2020-21). The funds are aimed at supporting community college efforts and high-touch strategies to increase student enrollment and retention rates. As with the prior round of funding, the focus is on engaging with former students who may have withdrawn due to the impacts of the pandemic, and connecting with current and prospective students who may be hesitant to enroll in college due to the impacts of COVID-19.

Expands Student Support Programs. The Governor's Budget proposes an increase of \$1.1 million **ongoing** to support the expansion of African American Male Education Network and Development (A2MEND) student charters to additional college districts. It also includes \$10 million ongoing to expand availability of foster youth support services through the NextUp program, seeking to expand the program from 20 to 30 districts. It provides \$179,000 one-time for a study of the Umoja program, to better understand the practices that promote student success for African American students.

Expresses Concern about Learning Disruptions. The budget proposal includes language expressing concern about the disruptions to student learning caused by the pandemic, and the disproportionate impact on underserved student populations. It indicates that districts should strive to meet the needs of their diverse student populations through various instructional modalities, given that some students may be best served by an online course format while others may be better served by in-person courses. The Administration expects districts to aim to offer at least 50% of lecture and laboratory course sections in-person in 2022-23, provided that approach is consistent with the district's student demand and with public health guidelines in place at the time.

Invests in Student Housing. The 2021 Budget Act included \$2 billion in one-time non-Proposition 98 General Funds to create a new fund for student housing at the three higher education segments, to be split over three years with an initial \$500 million included for 2021-22. Of the \$2 billion investment, \$1 billion is intended for affordable student housing projects at California Community Colleges. As planned, the Governor's Budget for 2022-23 includes \$750 million to support these housing grants, and expresses intent to appropriate the final \$750 million in 2023-24.

Streamlining Academic Pathways is an Enduring Priority

Invests in Common Course Numbering. The 2021 Budget Act included \$10 million **one-time** to plan for and begin developing a common course numbering system statewide, as a means of facilitating the alignment of curriculum, easing student course selection, promoting timely program completion, and supporting students who attend multiple colleges and those preparing to transfer. To further support that goal, the Governor's Budget includes \$105 million **one-time** to support systemwide implementation of common course numbering. Trailer bill language indicates that the funds could be used for:

- Aligning existing course curricula to a common course numbering system;
- Updating course catalogs and other digital course registries;
- Supporting faculty costs associate with course differentiation and curriculum approval; and
- Campus communication efforts to inform students of revised course numbers and curricula.

Supports Transfer Reform. Following the passage of AB 928 (Chapter 566, Statutes of 2021), the proposal includes \$65 million **one-time** to implement the bill’s transfer reform provisions. Those provisions require the system to participate in an intersegmental committee charged with oversight of the Associate Degree for Transfer (ADT) and to develop and implement procedures to place students who declare a goal of transfer on the ADT pathway if one exists for their chosen major, unless they opt out. According to trailer bill language, the funds could be used for:

- Reprogramming IT systems to accommodate a singular general education pathway;
- Staff time to revise course catalogs, and college policies and procedures, to accommodate default ADT placement for students declaring a goal of transfer; and
- Updating curriculum management or degree audit platforms.

Invests in Technology to Navigate Pathways. The proposal includes \$25 million **one-time** to facilitate the procurement and implementation of software that clearly maps out intersegmental curricular pathways, in order to help students select a pathway, facilitate streamlined transfer between segments, and reduce excess unit accumulation. It also includes \$100 million (\$75 million **one-time** and \$25 million **ongoing**) to address modernization of technology infrastructure, including sensitive data protection. Trailer bill language specifies that the \$75 million could be used for the following purposes:

- Security upgrades and malware prevention to education technology platforms;
- System enhancements and modernization for the CCCApply system;
- Costs for monitoring and assessment of security risks; and
- Efforts to improve the quality of online and distance education.

Increases Support for Teacher Preparation Partnerships. The Governor’s Budget includes \$5 million **one-time** to support the CCC Teacher Credentialing Partnership Program, created via legislation several years ago (SB 577, Chapter 603, Statutes of 2018). The program provided grants to community colleges in areas of the state with low rates of K-12 credentialed public school teachers to form partnerships with four-year institutions that have approved teacher preparation programs. The grants support the offering of teacher credential coursework remotely at the participating community college as a means of increasing access to teacher credentialing programs in underserved areas of the state.

Trailer bill language specifies that the Chancellor’s Office may award 10 additional grants not to exceed \$500,000 each. The funds are intended for one-time startup costs for the purposes of developing and implementing collaborative teacher credentialing degree programs, including professional development for effective distance learning; cost of

teaching assistants for courses offered via distance learning; technology upgrades for classrooms; student retention, outreach, or engagement; data monitoring and systems infrastructure; cross system alignment; and other startup costs necessary to establish the programs. Programs implemented with the funds must charge no more than the standard tuition and fees of the collaborating universities; utilize courses currently offered by the universities, with current faculty teaching them; and target teachers currently working on short-term or provisional permits. Programs must be accredited by the Commission on Teacher Credentialing's Committee on Accreditation. Students who enroll in the programs must have an opportunity to complete the necessary coursework if the collaborative is terminated.

Supports Grants for High-Skilled Career Pathways. The proposal includes \$20 million **one-time** for a grant program to support public-private partnerships that prepare students in high school and community college for specific high-skill fields, including science, technology, engineering, and mathematics (STEM) fields; health care occupations; and education and early education. The proposal is similar to a grant program funded in 2018-19 for STEM fields, but adds the fields of education, early education, and health care.

According to trailer bill language, the Chancellor's Office would award grants to be expended over a six-year period to applicants that meet certain conditions, including that they:

- Are part of an approved College and Career Access Pathways (CCAP) partnership (with one or more school districts or charter schools, and a community college district);
- Develop a curriculum that leads to an ADT in one of the relevant fields;
- Have students attend classes from grades 9 to 14, inclusive, on a single campus; and
- Establish agreements with private businesses in the relevant field that obligates the businesses to place students who complete the program first in line for a job, to identify a mentor for each participating student, to provide workplace learning opportunities, and to create a skills map for the industry and collaborate with the CCAP partnership to align the curriculum with workplace needs and identify the two-year degree that will meet industry expectations.

The Chancellor's Office would prioritize applications that would serve students who have been identified as academically or economically at risk for not completing high school or not enrolling in college, and who belong to populations that have historically faced barriers to higher education (e.g., students with disabilities or English language learners). The chancellor would award no more than one grant per county. Grant recipients would be required to submit enrollment, performance and employment data, and the chancellor would submit a report to the Administration and legislature on the grant program's activities and student outcomes by January 2029.

Other trailer bill language proposes to eliminate the sunset date for CCAP, and to remove the 10% limit on the number of FTES claimed as special admits.

Invests in Healthcare-Focused Adult Ed Pathways. The budget proposal includes \$130 million **one-time** to support healthcare-focused vocational pathways for English language learners through the Adult Education Program. The funding would be spread across three years (\$30 million in 2022-23, \$50 million in 2023-24, and \$50 million in 2024-25), and be intended to support learners across all levels of English proficiency.

Invests in K-12 Educational Pathways to Workforce and Higher Education. The Governor proposes \$1.5 billion one-time Proposition 98 for K-12 over four years to support the development of high school pathway programs focused on technology (including computer science, green technology, and engineering), health care, education (including early education), and climate-related fields. These programs would focus on developing local partnerships that bring together school systems, higher education institutions, employers, and other partners.

College Workforce and Its Diversity Receives Support

Addresses Needs of Part-Time Faculty. Building on investments in part-time faculty office hours in the 2021 Budget Act, the proposal includes \$200 million **ongoing** to augment the Part-Time Faculty Health Insurance Program as a means of incentivizing districts to expand healthcare coverage for their part-time faculty.

Invests in Diversifying the Workforce. Building on a \$20 million one-time investment in the 2021 Budget Act, the Governor’s Budget includes \$10 million **ongoing** to support the sustainable implementation of Equal Employment Opportunity program best practices to diversify community college faculty, staff, and administrators.

Efforts to Address Deferred Maintenance Continue

Building on the \$511 million in one-time funds provided in the 2021 Budget Act, the Governor’s Budget includes \$387.6 million **one-time** Proposition 98 funds to address deferred maintenance and energy efficiency projects across the system. Trailer bill language indicates that funds would be available for encumbrance or expenditure until June 30, 2024, and could be used for the following purposes:

- Scheduled maintenance and special repairs of facilities (chancellor may establish a minimum allocation per district for allocation of funds based on actual FTES);
- Hazardous substances abatement, cleanup, and repairs;
- Architectural barrier removal projects that meet federal requirements under the Americans with Disabilities Act and seismic retrofit projects limited to \$929,000; and
- Water conservation projects, to include replacement of water-intensive landscaping, drip or low-flow irrigation systems, building improvements to reduce water usage, or installation of water meters.

Buys Down Pension Liabilities

The Governor’s Budget proposes to contribute \$3.5 billion towards state pension liabilities. The payment would reduce state-level pension liabilities. Since the Governor proposes a supplemental payment using Proposition 2 debt repayment funding, the

investment would not directly reduce the CalPERS Schools Pool liability. It is, however, important to note that the projected 2022-23 district employer contribution rates (from the April 2021 CalPERS board actions) are based on a 7% rate of return, which CalPERS exceeded by approximately 14%. This additional gain will be offset by the discount rate change approved at the November 2021 CalPERS meeting. Updated CalPERS actuarial projections, including employer contribution rates, are anticipated in April 2022. Available estimates of the employer contribution rates are as shown in Table C-1 in Appendix C.

LOCAL SUPPORT FUNDING ACROSS PROGRAMS IS STABLE OR INCREASES

Table 4 shows proposed local assistance funding by program for the current and budget years. As the table shows, most categorical programs received level or workload funding in the Governor’s proposal, with certain programs receiving cost-of-living adjustments consistent with recent practices. Decreases in funding are related to removing one-time funding allocated in 2021-22 or to revised estimates of underlying factors.

Table 4: California Community Colleges Funding by Program^a (In Millions)

Program	2021-22 Revised	2022-23 Proposed	Change Amount	Percent Change	Explanation of Change
Student Centered Funding Formula	\$7,927.0	\$8,364.3	\$437.3	5.5%	COLA, growth, and other base adjustments (includes property tax, enrollment fee, and EPA adjustments)
Adult Education Program – Main ^b	\$566.4	\$596.3	29.9	5.3%	5.33% COLA
Student Equity and Achievement Program	\$499.0	\$499.0	0.0	0.0%	
Deferred maintenance (one-time)	\$511.0	\$387.6	N/A	N/A	Additional one-time funding for 2022-23
Strong Workforce Program	\$290.4	\$290.4	0.0	0.0%	
Student Success Completion Grant	\$162.6	\$262.6	100.0	61.5%	Adjust for revised estimates of recipients , with \$100M augmentation based on increased Cal Grant eligibility
Part-time faculty health insurance	\$0.5	\$200.5	200.0	40816.3%	Add \$200M ongoing funds
Integrated technology	\$65.5	\$164.5	99.0	151.1%	Includes one-time (\$75M) and ongoing funding (\$25M) for Data Modernization and Protection. Removes \$1M in one-time funding
Full-time faculty hiring	\$150.0	\$150.0	0.0	0.0%	
Retention and enrollment strategies (one-time)	\$100.0	\$150.0	N/A	N/A	Additional one-time funding for 2022-23
Extended Opportunity Programs and Services (EOPS)	\$135.3	\$142.4	7.1	5.3%	5.33% COLA
Disabled Students Programs and Services (DSPS)	\$126.4	\$133.1	6.7	5.3%	5.33% COLA

Adult Education Program - Healthcare Vocational Education (one-time) ^b	\$0.0	\$130.0	N/A	N/A	One-time funding spread across 3 years.
Common course numbering (one-time)	\$10.0	\$105.0	N/A	N/A	Additional one-time funding for 2022-23
Financial aid administration	\$74.3	\$79.1	4.8	6.5%	Increase of \$10 million and adjustments for revised estimates of fee waivers
California College Promise (AB 19)	\$72.5	\$66.0	-6.5	-9.0%	Adjust for revised estimates of first-time, full-time students
Transfer Reforms (one-time)	\$0.0	\$65.0	N/A	N/A	Add one-time funding for AB 928 transfer reform implementation.
Apprenticeship (community college districts)	\$60.1	\$61.7	1.6	2.7%	5.33% COLA for a portion of the program
CalWORKs student services	\$47.7	\$50.3	2.5	5.3%	5.33% COLA
Mandates Block Grant and reimbursements	\$33.7	\$35.8	2.1	6.3%	Revised enrollment estimates and 5.33% COLA
Student mental health services	\$30.0	\$30.0	0.0	0.0%	
Basic needs centers	\$30.0	\$30.0	0.0	0.0%	
NextUp (foster youth program)	\$20.0	\$30.0	10.0	50.0%	Add ongoing funding
Institutional effectiveness initiative	\$27.5	\$27.5	0.0	0.0%	
Program Pathways Mapping Technology (one-time)	\$0.0	\$25.0	N/A	N/A	Add one-time funding
Part-time faculty compensation	\$24.9	\$24.9	0.0	0.0%	
Online education initiative	\$23.0	\$23.0	0.0	0.0%	
Economic and Workforce Development	\$22.9	\$22.9	0.0	0.0%	
Part-time faculty office hours	\$112.2	\$22.2	N/A	N/A	Remove one-time funding
Cooperative Agencies Resources for Education (CARE)	\$19.7	\$20.8	1.1	5.3%	5.33% COLA
Emergency financial assistance grants (one-time)	\$150.0	\$20.0	N/A	N/A	Additional one-time funding for 2022-23 (specific to AB 540 students)
Pathways Grant Program for High-Skilled Careers (one-time)	\$0.0	\$20.0	N/A	N/A	Add one-time funding
California Online Community College (Calbright College)	\$15.0	\$15.0	0.0	0.0%	
Nursing grants	\$13.4	\$13.4	0.0	0.0%	
Lease revenue bond payments	\$12.8	\$12.8	0.0	0.0%	
Equal Employment Opportunity Program	\$2.8	\$12.8	10.0	357.1%	Add ongoing funding
Dreamer Resource Liaisons	\$11.6	\$11.6	0.0	0.0%	

Mathematics, Engineering, Science Achievement (MESA)	\$10.7	\$10.7	0.0	0.0%	
Immigrant legal services through CDSS	\$10.0	\$10.0	0.0	0.0%	
Veterans Resource Centers	\$10.0	\$10.0	0.0	0.0%	
Rising Scholars Network	\$10.0	\$10.0	0.0	0.0%	
Puente Project	\$9.3	\$9.3	0.0	0.0%	
Student Housing Program	\$9.0	\$9.0	0.0	0.0%	
Umoja	\$7.5	\$7.7	0.2	2.7%	\$0.2 million one-time for a study on Umoja
Foster Parent Education Program	\$5.7	\$5.7	0.0	0.0%	
Teacher Credentialing Partnership (one-time)	\$0.0	\$5.0	N/A	N/A	Add one-time funding
Childcare tax bailout	\$3.7	\$3.9	0.2	5.3%	5.33% COLA
Middle College High School Program	\$1.8	\$1.8	0.0	0.0%	
Academic Senate	\$1.7	\$1.7	0.0	0.0%	
Historically Black Colleges and Universities (HBCU) Transfer Pathway project	\$1.4	\$1.4	0.0	0.0%	
African American Male Education Network and Development (A2MEND)	\$0.0	\$1.1	N/A	N/A	Add ongoing funding
Transfer education and articulation	\$0.7	\$0.7	0.0	0.0%	
FCMAT	\$0.6	\$0.6	0.0	0.0%	
Deferrals--Student Centered Funding Formula	\$1,453.0	\$0.0	N/A	N/A	Remove one-time funding used to pay off 2020-21 deferrals.
Support zero-textbook-cost degrees (one-time)	\$115.0	\$0.0	N/A	N/A	Remove one-time funding
Basic needs for food and housing insecurity (one-time)	\$100.0	\$0.0	N/A	N/A	Remove one-time funding
College-specific allocations (one-time)	\$67.9	\$0.0	N/A	N/A	Remove one-time funding
Guided Pathways implementation (one-time)	\$50.0	\$0.0	N/A	N/A	Remove one-time funding
EEO best practices (one-time)	\$20.0	\$0.0	N/A	N/A	Remove one-time funding
Workforce investment initiatives with CWDB (one-time)	\$20.0	\$0.0	N/A	N/A	Remove one-time funding
Culturally Competent Professional Development (one-time)	\$20.0	\$0.0	N/A	N/A	Remove one-time funding
LGBTQ+ support (one-time)	\$10.0	\$0.0	N/A	N/A	Remove one-time funding
Competency-based education (one-time)	\$10.0	\$0.0	N/A	N/A	Remove one-time funding
AB 1460 implementation (one-time)	\$5.6	\$0.0	N/A	N/A	Remove one-time funding

Community college law school initiative (one-time)	\$5.0	\$0.0	N/A	N/A	Remove one-time funding
Instructional materials for dual enrollment (one-time)	\$2.5	\$0.0	N/A	N/A	Remove one-time funding

^a Table reflects total programmatic funding for the system, including amounts from prior years available for use in the years displayed.

^b The Adult Education program total includes resources that go to the K-12 system but are included in the CCC budget. The K-12 Strong Workforce program and K-12 Apprenticeship program are not listed above but are also included in the CCC budget.

CAPITAL OUTLAY INVESTMENTS LOWER FOR NOW, BUT MAY INCREASE

The Governor’s proposal includes \$373 million in capital outlay funding from Proposition 51, approved by voters in 2016, down from \$578 million provided in the 2021 Budget Act. The funding is to support the construction phase for 18 continuing projects, as listed in Table 5. Over the next few months, as districts obtain State approval of their Preliminary Plans/Working Drawings package, the Governor’s Budget will likely include them as a continuing project.

Table 5: Governor’s Proposed Capital Outlay Projects in the California Community Colleges (In Millions)

District, College	Project	2022-23 State Cost	2022-23 Total Cost	All Years State Cost	All Years Total Cost
CONTINUING PROJECTS					
El Camino, El Camino College	Music Building Replacement	\$27.09	\$54.54	\$29.06	\$58.48
Los Angeles, East Los Angeles College	Facilities Maintenance & Operations Replacement	\$11.59	\$27.97	\$12.42	\$29.76
Los Angeles, Los Angeles Mission College	Plant Facilities Warehouse and Shop Replacement	\$0.21	\$0.72	\$7.12	\$23.62
Los Angeles, Los Angeles Pierce College	Industrial Technology Replacement	\$17.00	\$41.41	\$18.18	\$44.01
Los Angeles, Los Angeles Trade-Technical College	Design and Media Arts	\$35.78	\$85.60	\$38.19	\$90.88
Los Angeles, Los Angeles Valley College	Academic Building 2	\$23.74	\$57.56	\$25.38	\$61.14
Los Angeles, West Los Angeles College	Plant Facilities/Shops Replacement	\$5.73	\$14.20	\$6.17	\$15.18
Mt San Antonio, Mt San Antonio College	Technology and Health Replacement	\$77.43	\$187.26	\$82.67	\$197.85
North Orange County, Cypress College	Fine Arts Renovation	\$19.38	\$31.85	\$20.89	\$34.37
North Orange County, Fullerton College	Music/Drama Complex-Buildings 1100 and 1300 Replacement	\$40.49	\$51.74	\$43.79	\$55.86

Rio Hondo, Rio Hondo College	Music/Wray Theater Renovation	\$11.56	\$26.59	\$12.54	\$28.82
Sierra Joint, Sierra College	Gymnasium Modernization	\$26.48	\$35.54	\$28.89	\$38.55
Sonoma County, Public Safety Training Center	Public Safety Training Center Expansion	\$4.93	\$7.28	\$5.32	\$7.94
Sonoma County, Santa Rosa Junior College	Tauzer Gym Renovation	\$9.87	\$19.47	\$10.76	\$21.32
South Orange County, Saddleback College	Science Math Building Reconstruction	\$20.34	\$46.62	\$21.64	\$49.65
West Hills, West Hills College Lemoore	Instructional Center Phase 1	\$23.54	\$31.70	\$25.18	\$34.09
West Valley Mission, Mission College	Performing Arts Building	\$14.43	\$17.11	\$15.45	\$33.58
Yuba, Yuba College	Building 800 Life and Physical Science Modernization	3.46	4.48	3.85	4.92
Total		\$373.04	\$741.62	\$400.38	\$827.83

STATE OPERATIONS RECEIVES ADDITIONAL FUNDING

The Chancellor’s Office provides leadership and oversight to the system, administers dozens of systemwide programs, and manages day-to-day operations of the system. The office is involved in implementing several recent initiatives including Guided Pathways, basic skills reforms, and a new apportionment funding formula. In addition, the Chancellor’s Office provides technical assistance to districts and conducts regional and statewide professional development activities. The current-year (2021-22) budget provides \$19.7 million in non-Proposition 98 General Fund and \$11.6 million in special funds and reimbursements for Chancellor’s Office operations.

Responding to the Board of Governors’ request for additional capacity to lead the system, the Governor’s Budget includes an initial increase of \$1.4 million ongoing non-Proposition 98 General Funds to support nine (9) new positions at the Chancellor’s Office in 2022-23, with conversations ongoing about the potential for additional state operations resources to be included in the May Revision. In addition, the proposal states an intent to provide an additional \$1.4 million in 2023-24 for 10 more new positions. The new resources are intended to allow the Chancellor’s Office to better support curriculum-related reforms and technology modernization efforts, in addition to increased operational capacity for research, data analysis, legal affairs, governmental relations, and fiscal health monitoring.

Summary of LAO Analysis and Comments

The LAO has expressed skepticism about the Administration’s higher education funding proposals. Its report, *The 2022-23 Budget: Overview of the Governor’s Higher Education Budget Proposals*, cautions the Legislature about the Governor’s development of multi-year budget agreements for the UC and CSU specifically.

While funding for the community colleges is not tied to the Roadmap goals in the same way as to the goals in the compacts for UC and CSU, and has greater alignment to the *Vision for Success*, the LAO makes several points specific to the budget for the community colleges.

- The LAO estimates that the system would need about 40% of the funding generated through the 5.33% COLA to cover higher pension costs as previously provided state pension relief ends, potentially leaving some districts without sufficient resources to cover salary increases at a level sufficient to keep pace with historically high inflation given rising costs for health care, utilities, and other operating costs.
- The proposal to extend district revenue protections ignores enrollment trends, as it would result in all colleges receiving at least as much funding as they received in 2024-25 regardless of the number of students served in future years.
- The Governor's proposals include new programs and activities on top of the considerable number of new programs included in the 2021-22 budget, raising questions about the System's capacity for effective and efficient implementation of additional new activities.

The LAO plans to release a more detailed analysis specific to the budget proposal for community colleges in the coming weeks, but has suggested that the Legislature consider more funding be directed toward deferred maintenance, which could further address the large backlog and has the advantage of being excludable from the SAL.

Next Steps

For more information throughout the budget process, please visit the Budget News section of the Chancellor's Office website:

<https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Budget-News>

Appendix A: Overview of the State Budget Process

The Governor and the Legislature adopt a new budget every year. The Constitution requires a balanced budget such that, if proposed expenditures exceed estimated revenues, the Governor is required to recommend changes in the budget. The fiscal year runs from July 1 through June 30.

Governor’s Budget Proposal. The California Constitution requires that the Governor submit a budget to the Legislature by January 10 of each year. The Director of Finance, who functions as the chief financial advisor to the Governor, directs the preparation of the Governor’s Budget. The state’s basic approach is incremental budgeting, estimating first the costs of existing programs and then adjusting those program levels. By law, the chairs of the budget committees in each house of the Legislature—the Senate Budget and Fiscal Review Committee and the Assembly Budget Committee—introduce bills reflecting the Governor’s proposal. These are called budget bills, and the two budget bills are identical at the time they are introduced.

Related Legislation. Some budget changes require that changes be made to existing law. In these cases, separate bills—called “trailer bills”—are considered with the budget. By law, all proposed statutory changes necessary to implement the Governor’s Budget are due to the Legislature by February 1.

Legislative Analyses. Following the release of the Governor’s Budget in January, the LAO begins its analyses of and recommendations on the Governor’s proposals. These analyses, each specific to a budget area (such as higher education) or set of budget proposals (such as transportation proposals), typically are released beginning in mid-January and continuing into March.

Governor’s Revised Proposals. Finance proposes adjustments to the January budget through “spring letters.” Existing law requires Finance to submit most changes to the Legislature by April 1. Existing law requires Finance to submit, by May 14, revised revenue estimates, changes to Proposition 98, and changes to programs budgeted based on enrollment, caseload, and population. For that reason, the May Revision typically includes significant changes for the California Community Colleges budget. Following release of the May Revision, the LAO publishes additional analyses evaluating new and amended proposals.

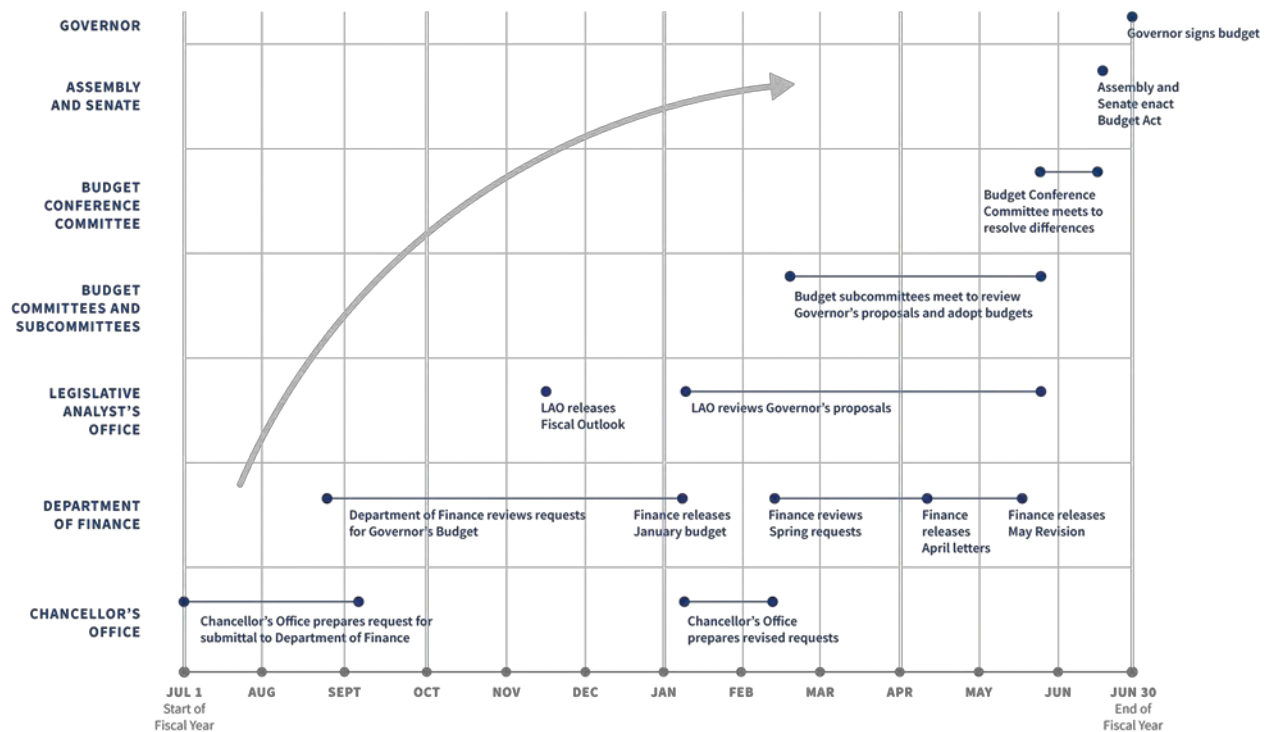
Legislative Review. The budget committees assign the items in the budget to subcommittees, which are organized by areas of state government (e.g., education). Many subcommittees rely heavily on the LAO analyses in developing their hearing agendas. For each January budget proposal, a subcommittee can adopt, reject, or modify the proposal. Any January proposals not acted on remain in the budget by default. May proposals, in contrast, must be acted on to be included in the budget. In addition to acting on the Governor’s budget proposals, subcommittees also can add their own proposals to the budget.

When a subcommittee completes its actions, it reports its recommendations back to the full committee for approval. Through this process, each house develops a version of the budget that is a modification of the Governor’s January budget proposal.

A budget conference committee is then appointed to resolve differences between the Senate and Assembly versions of the budget. The administration commonly engages with legislative leaders during this time to influence conference committee negotiations. The committee’s report reflecting the budget deal between the houses is then sent to the full houses for approval.

Budget Enactment. Typically, the Governor has 12 days to sign or veto the budget bill. The Governor also has the authority to reduce or eliminate any appropriation included in the budget. Because the budget bill is an urgency measure, the bill takes effect as soon as it is signed.

SEQUENCE OF THE ANNUAL STATE BUDGET PROCESS



Appendix B: Board of Governors' Budget and Legislative Request Compared to Governor's Budget Proposal

Board of Governor's Request	Governor's Budget Proposal
Ongoing Investments	
Foundational Resources. \$500 million for base funding increase.	Provides \$409 million for a COLA of 5.33% and \$25 million for 0.5% enrollment growth.
Students' Equitable Recovery. \$50 million for basic needs, \$20 million to expand NextUp Program, \$2 million for Foster and Kinship Care Education program, unspecified amount to scale the Military Articulation Platform, and funds to cover a 3% augmentation for DSPS and CalWORKS.	Provides \$10 million to expand NextUp.
Diversity, Equity and Inclusion. \$51 million to support districts in connecting hiring practices and procedures to DEI efforts.	Provides \$10 million to support EEO best practices to diversify faculty, staff and administrators.
Support for Faculty and Staff. \$25 million for professional development.	Instead, it provides \$200 million to augment the Part-Time Faculty Health Insurance Program.
Enrollment and Retention Strategies. \$20.3 million to recover from pandemic enrollment declines, particularly among underserved student groups.	See one-time funding provided below.
Technology Capacity to Support Teaching and Learning. \$22 million for district cybersecurity staff, \$9 million for distance education (DE) professional development, \$1.25 million for cybersecurity teams, \$1 million for Ed Tech Portfolio security, \$1 million for DE teaching and learning support, and \$750,000 for CCCApply hosting and maintenance.	Provides \$25 million to address modernization of CCC technology infrastructure (and additional one-time funding described below).
College Affordability and Supports. \$20 million for local financial aid administration.	Provides \$10 million to augment resources for financial aid offices. Also includes \$100 million for students newly eligible for the Student Success Completion Grant due to expanded Cal Grant B/C eligibility.
One-Time Investments	
Students' Equitable Recovery. \$1.1 million to expand A2MEND Student Charters, \$179,000 to study Umoja program elements affecting Black student success.	Provides the requested funding for A2MEND and the Umoja program study. Also includes \$150 million to support high-touch strategies to increase student retention rates and enrollment; \$20 million for emergency grants to AB 540 students; and \$65 million to support implementation of the transfer reform provisions of AB 928.

<p>Diversity, Equity and Inclusion. \$40 million for innovations in colleges’ efforts to implement culturally competent practices.</p>	<p>See ongoing funding above for increased diversity in hiring.</p>
<p>Support for Faculty and Staff. \$100 million to support full-time faculty and \$300 million for part-time faculty.</p>	<p>See ongoing funding described above.</p>
<p>Technology Capacity to Support Teaching and Learning. \$40 million for Ed Tech Portfolio, \$28.5 million for district enrollment security upgrades, \$6.5 million for CCCApply enhancements and modernization.</p>	<p>Provides \$75 million to address modernization of CCC technology infrastructure; \$105 million to support systemwide implementation of common course numbering; and \$25 million for software that maps out intersegmental curricular pathways.</p>
<p>Non-Proposition 98 Investments</p>	
<p>Supporting Institutional Quality and Capacity. \$75 million ongoing for the Physical Plant and Instructional Support program, unspecified ongoing funds to assist in covering increases to CalPERS and CalSTRS, \$150 million one-time for deferred maintenance, \$100 million one-time for Guided Pathways implementation, and \$1.5-\$2.5 million one-time and \$250,000 ongoing to support development of a streamlined reporting process and tool.</p>	<p>Provides \$373 million of Proposition 51 funds for facilities. Also provides \$387.6 million in one-time Proposition 98 funds for deferred maintenance.</p>
<p>Capacity to Support the System. Additional Chancellor’s Office staffing, including 9 Educational Services & Workforce Development positions, 6 Fiscal Services positions, 4 Legal positions, 4 Communications and Governmental Relations positions, and 8 Technology and Research positions.</p>	<p>Provides \$1.4 million ongoing to support nine (9) new positions in 2022-23, and states intention to provide additional \$1.4 million in 2023-24 for another 10 positions.</p>
<p>Students’ Equitable Recovery. Requests (1) policy recommendations from independent research entity on how to ensure guaranteed admission to UC or CSU for transfer students without loss of units; (2) removal of sunset date on CCAP programs; and (3) reauthorization and recasting of EWD program to support a student-centered approach that expands work-based learning.</p>	<p>See one-time Proposition 98 funding for AB 928 implementation above.</p> <p>Removes sunset date on CCAP programs, and removes the 10% limit on the number of FTES claimed as special admits.</p> <p>Extends sunset date of EWD program by 5 years, to January 1, 2028.</p>
<p>College Affordability and Supports. \$500 million one-time and \$50 million ongoing to develop affordable student housing program. Also requests (1) unspecified revenues and statutory authority to ensure equitable student access to books and materials; (2) identification of a dedicated revenue source for increasing Cal Grant amounts for CCC students to address the total cost of attendance; and (3) expanded eligibility for AB 540 nonresident tuition exemption.</p>	<p>See above the ongoing Proposition 98 funding related to Cal Grant eligibility expansion, and the one-time funding for AB 540 students.</p>

Appendix C: Local Budgets and State Requirements

BUDGET PLANNING AND FORECASTING

Based on the information used in developing the state budget, it would be reasonable for districts to plan their budgets using information shown in Table C-1 below.

Table C-1: Planning Factors for Proposed 2022-23 Budget

Factor	2020-21	2021-22	2022-23
Cost-of-living adjustment (COLA)	0.00%	5.07%	5.33%
State Lottery funding per FTES ^a	\$238	\$228	TBD
Mandated Costs Block Grant funding per FTES	\$30.16	\$30.16	\$30.16
RSI reimbursement per hour	\$6.44	\$6.44	\$6.44
Financial aid administration per College Promise Grant	\$0.91	\$0.91	\$0.91
Public Employees' Retirement System (CalPERS) employer contribution rates	20.70%	22.91%	25.40%
State Teachers' Retirement System (CalSTRS) employer contribution rates	16.15%	16.92%	16.92%

^a 2022-23 estimate not available

STATE REQUIREMENTS FOR DISTRICT BUDGET APPROVAL

Existing law requires the governing board of each district to adopt an annual budget and financial report that shows proposed expenditures and estimated revenues by specified deadlines. Financial reporting deadlines are shown in Table C-2.

Table C-2: Standard Financial Reporting Deadlines in Place for 2022-23

Activity	Regulatory Due Date	Title 5 Section
Submit tentative budget to county officer.	July 1, 2022	58305(a)
Make available for public inspection a statement of prior year receipts and expenditures and current year expenses.	September 15, 2022	58300
Hold a public hearing on the proposed budget. Adopt a final budget.	September 15, 2022	58301
Complete the adopted annual financial and budget report and make public.	September 30, 2022	58305(d)
Submit an annual financial and budget report to Chancellor's Office.	October 10, 2022	58305(d)
Submit an audit report to the Chancellor's Office.	December 31, 2022	59106

If the governing board of any district fails to develop a budget as described, the chancellor may withhold any apportionment of state or local money to the district for the current fiscal year until the district makes a proper budget. These penalties are not imposed on a district if the chancellor determines that unique circumstances made it impossible for the district to comply with the provisions or if there were delays in the adoption of the annual state budget.

The total amount proposed for each major classification of expenditures is the maximum amount that may be expended for that classification for the fiscal year. Through a resolution, the governing board may make budget adjustments or authorize transfers from the reserve for contingencies to any classification (with a two-thirds vote) or between classifications (with a majority vote).

STATE REQUIREMENTS RELATED TO EXPENDITURES

State law includes two main requirements for districts' use of apportionments. The Chancellor's Office monitors district compliance with both requirements and annually updates the Board of Governors.

Full-Time Faculty Obligation

Education Code Section 87482.6 recognizes the goal of the Board of Governors that 75% of the hours of credit instruction in the California Community Colleges should be taught by full-time faculty. Each district has a baseline reflecting the number of full-time faculty in 1988-89. Each year, if the Board of Governors determines that adequate funds exist in the budget, districts are required to increase their base number of full-time faculty over the prior year in proportion to the amount of growth in funded credit full-time equivalent students. Funded credit FTES includes emergency conditions allowance protections, such as those approved for fires and for the COVID-19 pandemic. Districts with emergency conditions allowances approved per regulation will not have their full-time faculty obligation reduced for actual reported FTES declines while the protection is in place. The target number of faculty is called the Faculty Obligation Number (FON). An additional increase to the FON is required when the budget includes funds specifically for the purposes of increasing the full-time faculty percentage. The chancellor is required to assess a penalty for a district that does not meet its FON for a given year.

Fifty Percent Law

A second requirement related to budget levels is a statutory requirement that each district spend at least half of its Current Expense of Education each fiscal year for salaries and benefits of classroom instructors. Under existing law, a district may apply for an exemption under limited circumstances.

Appendix D: Districts' Fiscal Health

The Board of Governors has established standards for sound fiscal management and a process to monitor and evaluate the financial health of community college districts. These standards are intended to be progressive, with the focus on prevention and assistance at the initial level and more direct intervention at the highest level.

Under that process, each district is required to regularly report to its governing board the status of the district's financial condition and to submit quarterly reports to the Chancellor's Office three times a year in November, February, and May. Based on these reports, the Chancellor is required to determine if intervention is needed. Specifically, intervention may be necessary if a district's report indicates a high probability that, if trends continue unabated, the district will need an emergency apportionment from the state within three years or that the district is not in compliance with principles of sound fiscal management. The Chancellor's Office's intervention could include, but is not limited to, requiring the submission of additional reports, requiring the district to respond to specific concerns, or directing the district to prepare and adopt a plan for achieving fiscal stability. The Chancellor also could assign a fiscal monitor or special trustee.

The Chancellor's Office believes that the evaluation of fiscal health should not be limited to times of crisis. Accordingly, the Fiscal Forward Portfolio has been implemented to support best practices in governance and continued accreditation, and to provide training and technical assistance to new chief executive officers and chief business officers through personalized desk sessions with Chancellor's Office staff.

The Chancellor's Office's ongoing fiscal health analysis includes review of key financial indicators, results of annual audit reports, and other factors. A primary financial health indicator is the district's unrestricted reserves balance. **The Chancellor's Office recommends that districts adopt policies to maintain sufficient unrestricted reserves with a suggested minimum of two months of general fund operating expenditures or revenues, consistent with Budgeting Best Practices published by the Government Finance Officers Association.**

Districts are strongly encouraged to regularly assess risks to their fiscal health. The Fiscal Crisis and Management Assistance Team has developed a Fiscal Health Risk Analysis for districts as a management tool to evaluate key fiscal indicators that may help measure a district's risk of insolvency in the current and two subsequent fiscal years.

Appendix E: Glossary

Appropriation: Money set apart by legislation for a specific use, with limits in the amount and period during which the expenditure is to be recognized.

Augmentation: An increase to a previously authorized appropriation or allotment.

Bond Funds: Funds used to account for the receipt and disbursement of non-self-liquidating general obligation bond proceeds.

Budget: A plan of operation expressed in terms of financial or other resource requirements for a specific period.

Budget Act (BA): An annual statute authorizing state departments to expend appropriated funds for the purposes stated in the Governor's Budget, amended by the Legislature, and signed by the Governor.

Budget Year (BY): The next state fiscal year, beginning July 1 and ending June 30, for which the Governor's Budget is submitted (i.e., the year following the current fiscal year).

Capital Outlay: Expenditures that result in acquisition or addition of land, planning and construction of new buildings, expansion or modification of existing buildings, or purchase of equipment related to such construction, or a combination of these.

Cost of Living Adjustment (COLA): Increases provided in state-funded programs intended to offset the effects of inflation.

Current Year (CY): The present state fiscal year, beginning July 1 and ending June 30 (in contrast to past or future periods).

Deferrals: Late payments to districts when the state cannot meet its funding obligations. Deferrals allow districts to budget for more money than the state will provide in a given year. A district is permitted to spend as if there is no deferral. Districts typically rely on local reserves or short-term loans (e.g., TRANS) to cover spending for the fiscal year.

Department of Finance (DOF or Finance): A state fiscal control agency. The Director of Finance is appointed by the Governor and serves as the chief fiscal policy advisor.

Education Protection Account (EPA): The Education Protection Account (EPA) was created in November 2012 by Proposition 30, the Schools and Local Public Safety Protection Act of 2012, and amended by Proposition 55 in November 2016. Of the funds in the account, 89 percent is provided to K-12 education and 11 percent to community colleges. These funds are set to expire on December 31, 2030.

Expenditure: Amount of an appropriation spent or used.

Fiscal Year (FY): A 12-month budgeting and accounting period. In California state government, the fiscal year begins July 1 and ends the following June 30.

Fund: A legal budgeting and accounting entity that provides for the segregation of moneys or other resources in the State Treasury for obligations in accordance with specific restrictions or limitations.

General Fund (GF): The predominant fund for financing state operations; used to account for revenues that are not specifically designated by any other fund.

Governor's Budget: The publication the Governor presents to the Legislature by January 10 each year, which includes recommended expenditures and estimates of revenues.

Legislative Analyst's Office (LAO): A nonpartisan office that provides fiscal and policy advice to the Legislature.

Local Assistance: Expenditures made for the support of local government or other locally administered activities.

May Revision: An update to the Governor's Budget presented by Finance to the Legislature by May 14 of each year.

Past Year or Prior Year (PY): The most recently completed state fiscal year, beginning July 1 and ending June 30.

Proposition 98: A section of the California Constitution that, among other provisions, specifies a minimum funding guarantee for schools and community colleges. California Community Colleges typically receive 10.93% of the funds.

Related and Supplemental Instruction (RSI): An organized and systematic form of instruction designed to provide apprentices with knowledge including the theoretical and technical subjects related and supplemental to the skill(s) involved.

Reserve: An amount set aside in a fund to provide for an unanticipated decline in revenue or increase in expenditures.

Revenue: Government income, generally derived from taxes, licenses and fees, and investment earnings, which are appropriated for the payment of public expenses.

State Appropriations Limit (SAL, or Gann limit): The limit on the amount of revenue the state can appropriate each year, based on expenditures in the base year of 1978-79 increased annually by a growth factor that considers economic growth and change in population. Certain capital outlay expenditures are excluded from the limit.

State Operations: Expenditures for the support of state government.

Statute: A law enacted by the Legislature.

Tax and Revenue Anticipation Notes (TRANS): Short-term debt instruments issued in anticipation of taxes or other revenues to be collected at a later date.

Workload Budget: The level of funding needed to support the current cost of already-authorized services.

The 2022-23 Budget: Analysis of Major CCC Proposals

Summary

Brief Covers Major Proposals for California Community Colleges (CCC). This brief focuses on the Governor's proposals related to CCC apportionments, enrollment, modifications to the Student Centered Funding Formula (SCFF), part-time faculty health insurance, and deferred maintenance. Proposals in these areas account for three-quarters of the Governor's ongoing augmentations and about half of his one-time spending for community colleges.

Community Colleges Facing Heightened Challenges. In 2022-23, districts are facing greater pressure to increase employees' salaries given high inflation; cover scheduled increases in their pension contributions, partly due to expiring state pension relief; and adjust to the expiration of federal relief funds. Consistent with nationwide trends, CCC as a system also has experienced significant enrollment declines since the beginning of the pandemic. Though preliminary data for 2021-22 suggest some districts may be starting to recover lost enrollment, the current favorable job market and unknown trajectory of the pandemic make predicting when enrollments will return difficult. In addition, a number of districts face a "fiscal cliff" in 2025-26 when a key hold harmless provision related to SCFF is scheduled to expire.

Opportunities to Build on Governor's Proposals. To address districts' fiscal challenges, the Legislature may wish to provide a greater cost-of-living adjustment (COLA) for apportionments than the \$409 million (5.33 percent) proposed in the Governor's budget. Also, to the extent the Legislature is concerned both with districts' enrollment declines and their ability to cover continued COVID-19-related costs in 2022-23, it could repurpose the Governor's proposed \$150 million one-time funding for student outreach into a more flexible block grant. Districts could be allowed to use block grant funds for student outreach and recruitment, student mental health services, or COVID-19 mitigation, among other potential purposes. We also recommend the Legislature consider modifying the Governor's SCFF hold harmless proposal by beginning to explore the possibility of increasing base funding for SCFF (beyond annual COLAs). Higher base SCFF funding would have the effect of shifting districts out of hold harmless more quickly while also helping them with rising core operating costs and declining enrollment. If the Legislature wanted to start moving toward those higher rates in 2022-23, it potentially could redirect ongoing funds from other proposals (including the Part-Time Faculty Health Insurance Program).

INTRODUCTION

This brief is organized around the Governor's major 2022-23 budget proposals for the California Community Colleges (CCC). The first section of the brief provides an overview of the Governor's CCC budget package. The remaining five sections of the brief focus on the apportionments funding increase, enrollment, the Student Centered Funding

Formula (SCFF), part-time faculty health insurance, and deferred maintenance, respectively. Proposals related to these issues account for three-quarters of the Governor's ongoing augmentations and about half of his one-time spending. We anticipate covering other CCC proposals in subsequent products.

OVERVIEW

Total CCC Funding Is \$17.3 Billion Under Governor's Budget. Of CCC funding, \$11.6 billion comes from Proposition 98 funds. As **Figure 1** shows, Proposition 98 support for CCC in 2022-23

increases by \$518 million (4.7 percent) over the revised 2021-22 level. In addition to Proposition 98 General Fund, the state provides CCC with a total of \$658 million non-Proposition 98 General Fund for

Figure 1

California Community Colleges Rely Heavily on Proposition 98 Funding

(Dollars in Millions Except Funding Per Student)

	2020-21 Revised	2021-22 Revised	2022-23 Proposed	Change From 2021-22	
				Amount	Percent
Proposition 98					
General Fund	\$7,392	\$7,528	\$7,827	\$299	4.0%
Local property tax	3,374	3,546	3,766	220	6.2
Subtotals	(\$10,766)	(\$11,075)	(\$11,593)	(\$518)	(4.7%)
Other State					
Other General Fund	\$619	\$644	\$658	\$13	2.1%
Lottery	275	273	272	— ^a	-0.1
Special funds	44	94	94	—	—
Subtotals	(\$937)	(\$1,011)	(\$1,024)	(\$13)	(1.3%)
Other Local					
Enrollment fees	\$446	\$446	\$448	\$1	0.3%
Other local revenue ^b	3,833	3,860	3,888	28	0.7
Subtotals	(\$4,279)	(\$4,306)	(\$4,336)	(\$30)	(0.7%)
Federal					
Federal stimulus funds ^c	\$1,431	\$2,648	—	-\$2,648	—
Other federal funds	365	365	\$365	—	—
Subtotals	(\$1,797)	(\$3,014)	(\$365)	-\$2,648	-(87.9%)
Totals	\$17,779	\$19,405	\$17,318	-\$2,087	-10.8%
FTE students ^d	1,097,850	1,107,543	1,101,510	-6,033	-0.5% ^e
Proposition 98 funding per FTE student ^d	\$9,807	\$9,999	\$10,524	\$525	5.3%

^a Difference of less than \$500,000.

^b Primarily consists of revenue from student fees (other than enrollment fees), sales and services, and grants and contracts, as well as local debt-service payments.

^c Consists of federal relief funds provided directly to colleges as well as allocated through state budget decisions.

^d Reflects budgeted FTE students. Though final student counts are not available for any of the periods shown, preliminary data indicate CCC enrollment dropped in 2020-21, with a likely further drop in 2021-22. Districts, however, have not had their enrollment funding reduced due to certain hold harmless provisions that have insulated their budgets from drops occurring during the pandemic.

^e Reflects the net change after accounting for the proposed 0.5 percent systemwide enrollment growth together with all other enrollment adjustments.

FTE = full-time equivalent.

certain purposes. Most notably, non-Proposition 98 funds cover debt service on state general obligation bonds for CCC facilities, a portion of CCC faculty retirement costs, and operations at the Chancellor's Office. Much of CCC's remaining funding comes from student enrollment fees, other student fees (such as nonresident tuition, parking fees, and health services fees), and various local sources (such as revenue from facility rentals and community service programs). In 2020-21 and 2021-22, community colleges also received a significant amount of federal relief funds. These federal funds must be spent or encumbered by May 2022, as discussed in the nearby box.

Governor's Budget Contains Many CCC Proposition 98 Spending Proposals.

The Governor has 10 ongoing and 11 one-time CCC spending proposals. As **Figure 2** on the next page shows, the Governor's ongoing spending proposals total \$843 million, whereas his one-time initiatives total \$983 million. His largest ongoing spending proposals are a 5.33 percent cost-of-living adjustment (COLA) for apportionments and a major expansion of the Part-Time Faculty Health Insurance Program. His largest one-time proposals are for facility maintenance and student enrollment and retention strategies. Spending on facility maintenance

(\$388 million) would be excluded from the state appropriations limit (SAL) under the Governor's budget. (In our report, *The 2022-23 Budget: Initial Comments on the State Appropriations Limit Proposal*, we cover SAL issues in more detail.)

No Proposals for Addressing Unfunded Retirement Liabilities or Providing Pension Relief. In recent years, the Governor has had various budget proposals relating to education pension funding. These proposals have included making supplemental payments toward pension systems' unfunded liabilities as well as giving community college districts immediate pension relief by subsidizing their rates in 2019-20, 2020-21, and 2021-22. Though community colleges' employer pension contribution rates are expected to rise notably in 2022-23, the Governor does not have any such proposals this year.

Proposes No Change to Enrollment Fee. State law currently sets the CCC enrollment fee at \$46 per unit (or \$1,380 for a full-time student taking 30 semester units per year). The Governor proposes no increase in the fee, which has remained flat since summer 2012.

Funds 18 Capital Projects. The Governor proposes to provide \$373 million in state general obligation bond funding to continue 18 previously authorized community college projects.

Federal Relief Funds

Community Colleges Received Considerable Federal Relief Funding. Community colleges received a total of \$4.7 billion over three rounds of federal relief funding in response to COVID-19. (Our [Federal Relief Funding for Higher Education](#) table provides more detail on California Community College relief funds.) Collectively, colleges are required to spend at least \$2 billion of their relief funds for direct student aid. The rest can be used for institutional operations. Colleges have used institutional funds for a variety of purposes, including to undertake screening and other COVID-19 mitigation efforts, cover higher technology costs related to remote operations, purchase laptops for students, and backfill lost revenue from parking and other auxiliary college programs.

Deadline for Colleges to Spend Federal Relief Funds Is Approaching. Colleges must spend or encumber federal relief funds by May 2022, unless they apply for and receive an extension from the federal government. Though systemwide data on college expenditures is not readily available, a review of a subset of colleges suggests more than half of their student aid funds and just under half of their institutional funds had been spent as of December 31, 2021. Comprehensive information also is not yet available on the colleges that requested and received extensions. When we surveyed districts in fall 2021, several districts indicated they had requested extensions, but those requests had not been granted.

Of these projects, 17 are for the construction phase and 1 is for the working drawings phase. All bond funds would come from Proposition 51 (2016). A list of these projects and their associated costs is available on our [EdBudget](#) website.

Governor Announces a “Roadmap” for CCC. The roadmap for CCC is somewhat different than the compacts for the California State University (CSU) and the University of California (UC) in that it does not specify in advance what will be the size of future base funding increases. Instead, the Governor indicates that community colleges’ base increases would depend upon available Proposition 98 funds in future years. The roadmap is similar to the university compacts, however, in setting forth certain expectations to be achieved by the colleges over a five-year period. The 15 expectations for the community colleges include increasing student graduation and transfer rates, closing equity gaps, establishing a common intersegmental learning management system and admission platform, and enhancing K-14 as well as workforce pathways. We describe and assess the Governor’s roadmap with CCC, as well as his multiyear agreements with CSU and UC, in our publication, [The 2022-23 Budget: Overview of the Governor’s Higher Education Budget Proposals](#).

Figure 2

Governor Has Many Proposition 98 Spending Proposals

(In Millions)

Ongoing Proposals	
COLA for apportionments (5.33 percent)	\$409
Part-Time Faculty Health Insurance Program	200
Student Success Completion Grants (caseload adjustment)	100
COLA for select categorical programs (5.33 percent) ^a	53
Technology security	25
Enrollment growth (0.5 percent)	25
Equal Employment Opportunity program	10
Financial aid administration	10
NextUp foster youth program	10
A2MEND program	1
Subtotal	(\$843)
One-Time Initiatives	
Facilities maintenance and instructional equipment	\$388
Student enrollment and retention strategies	150
Health care pathways for English learners	130
Common course numbering implementation	105
Technology security	75
Transfer reform implementation	65
Intersegmental curricular pathways software	25
STEM, education, and health care pathways grant program	20
Emergency financial assistance for AB 540 students	20
Teacher Credentialing Partnership Pilot	5
Umoja program study	— ^b
Subtotal	(\$983)
Total	\$1,826

^a Applies to the Adult Education Program, apprenticeship programs, CalWORKs student services, campus child care support, Disabled Students Programs and Services, Extended Opportunity Programs and Services, and mandates block grant.

^b Reflects \$179,000.

COLA = cost-of-living adjustment; A2MEND = African American Male Education Network and Development; and STEM = science, technology, engineering, and mathematics.

APPORTIONMENTS INCREASE

In this section, we provide background on community college apportionments, describe the Governor’s proposal to increase apportionments for inflation, assess the proposal, and provide a recommendation.

Background

Most CCC Proposition 98 Funding Is Provided Through Apportionments. Every local community college district receives apportionment funding, which is available for covering core

operating costs. Although the state is not statutorily required to provide community colleges a COLA on their apportionment funding (as it is for K-12 schools), the state has a longstanding practice of providing one when there are sufficient Proposition 98 resources. The COLA rate is based on a price index published by the federal government that reflects changes in the cost of goods and services purchased by state and local governments across the country.

Compensation Is Largest District Operating Cost. On average, community college districts spend about 85 percent of their core operating budget on salary and benefit costs. While the exact split varies from district to district, salaries and wages can account for up to about 70 percent of total compensation costs. District pension contributions typically account for another 10 percent to 15 percent of total compensation costs. Health care costs vary among districts, but costs for active employees commonly account for roughly 10 percent of compensation costs, with retiree health care costs typically comprising less than 5 percent. Additionally, districts must pay various other compensation-related costs, including workers' compensation and unemployment insurance, which collectively tend to account for about 5 percent of total costs. Districts' other core operating costs include utilities, insurance, software licenses, equipment, and supplies. On average, about 15 percent of districts' operating budget is for these noncompensation-related expenses.

Proposal

Governor Funds Apportionment COLA.

The Governor's largest proposed ongoing augmentation for the community colleges is \$409 million to cover a 5.33 percent COLA for apportionments. This is the same percentage as the Governor proposes for the K-12 Local Control Funding Formula. (It is also the same COLA rate the Governor proposes for certain CCC categorical programs, including the mandate block grant, Disabled Students Programs and Services, and Extended Opportunity Programs and Services.)

Assessment

COLA Likely to Be Higher in May. The federal government released additional data used to calculate the apportionment COLA on January 27. Using this additional data, our office estimates the COLA for 2022-23 will be closer to 6.17 percent (about 0.8 percentage points higher than the Governor's January estimate). Covering this higher COLA rate for community college apportionments would cost about \$475 million, or about \$65 million more than included in the Governor's budget.

Districts Are Facing a Couple of Notable Compensation-Related Cost Pressures in 2022-23. Augmenting apportionment funding can help community colleges accommodate operating cost increases. One notable cost pressure in 2022-23 is salary pressure. With inflation higher than it has been in decades, districts are likely to feel pressure to provide salary increases. (If the total CCC salary pool were increased 3 percent to 6 percent, associated costs would range from roughly \$200 million to \$400 million.) A second notable cost pressure relates to districts' pension costs. Updated estimates suggest that community college pension costs will increase by a total of more than \$120 million in 2022-23, which represents about 30 percent of the COLA funding proposed by the Governor. (Like the other education segments, community college districts also expect to see higher costs in 2022-23 for insurance, equipment, and utilities, though these cost increases could be partly offset by costs potentially remaining lower than normal in other areas, such as travel.)

Depending on Enrollment Demand, Districts Could Realize Some Workload-Related Savings.

As a result of declining enrollment since the onset of the pandemic, districts generally have been offering fewer course sections. On a systemwide basis, districts offered 45,000 fewer course sections in 2020-21 than in 2019-20, which likely resulted in tens of millions of dollars in savings from needing to pay fewer part-time faculty. (When districts reduce course sections, they typically reduce their use of part-time faculty, who are considered temporary employees, compared to full-time faculty, who are considered permanent employees.) To the extent districts continue to experience soft enrollment demand in 2022-23, they potentially could continue to realize lower costs due to employing fewer part-time faculty. (On net, however, colleges are still expected to see notable upward pressure on their total compensation costs in 2022-23.)

Districts Face Cost Pressures Stemming From Expiration of Federal Relief Funds.

Over the past two years, districts have used federal relief funds to cover various operating costs, including new COVID-19 mitigation-related costs. Once these federal relief funds are spent or otherwise expire, districts likely will assume

responsibility for covering ongoing operating costs such as for personal protective equipment, additional cleaning, and potentially COVID-19 screening and testing. Districts also will need to begin covering the technology costs (such as for computer equipment for students and staff as well as software licenses) that federal relief funds have been covering. In addition, a number of districts have used federal relief funds to backfill the loss of revenue from parking and other auxiliary programs. The loss of federal funds will put pressure on district operating budgets to cover these costs should revenues from these auxiliary programs fail to return to pre-pandemic levels.

Recommendation

Make COLA Decision Once Better Information Is Available This Spring. The federal government will release the final data for the 2022-23 COLA in late April 2022. By early May, the Legislature also will have better information on state revenues, which, in turn, will affect the amount available for new CCC Proposition 98 spending. If additional Proposition 98 ongoing funds are available in May, the Legislature may wish to provide a greater increase than the Governor's January budget proposes for community college apportionments. A larger increase would help all community college districts to address salary pressures, rising pension costs, and other operating cost increases while also helping them adjust to the expiration of their federal relief funds.

ENROLLMENT

In this section, we provide background on community college enrollment trends, describe the Governor's proposal to increase funding for enrollment and student outreach, assess those proposals, and offer associated recommendations.

Background

Several Factors Influence CCC Enrollment.

Under the state's *Master Plan for Higher Education* and state law, community colleges operate as open access institutions. That is, all persons 18 years or older may attend a community college. (While CCC does not deny admission to students, there is no guarantee of access to a particular class.) Many factors affect the number of students who attend community colleges, including changes in the state's population, particularly among young adults; local economic conditions, particularly the local job market; the availability of certain classes; and the perceived value of the education to potential students.

Prior to the Pandemic, CCC Enrollment Had Plateaued. During the Great Recession, community college student demand increased as individuals losing jobs sought additional education and training. Yet, enrollment ended up dropping as

the state reduced funding for the colleges. A state funding recovered during the early years of the economic expansion (2012-13 through 2015-16), systemwide enrollment increased. **Figure 3** shows that enrollment flattened thereafter, as the period of economic expansion continued and unemployment remained at or near record lows.

CCC Enrollment Has Dropped Notably Since Start of Pandemic.

Consistent with nationwide trends for community colleges, between 2018-19 (the last full year before the start of the pandemic) and 2020-21, full-time equivalent (FTE) students declined by 115,000 (10 percent), as also shown in Figure 3. While enrollment declines have affected virtually every student demographic group, most districts report the largest enrollment declines among African American, male, lower-income, and older adult students. Data for 2021-22 will not be finalized for many months, but preliminary fall 2021 data suggests enrollment could be down by more than 5 percent compared with the previous fall. Though most districts reporting as of early February 2022 show enrollment declines from fall 2020 to fall 2021, data indicate that a few districts could be starting to see some enrollment growth.

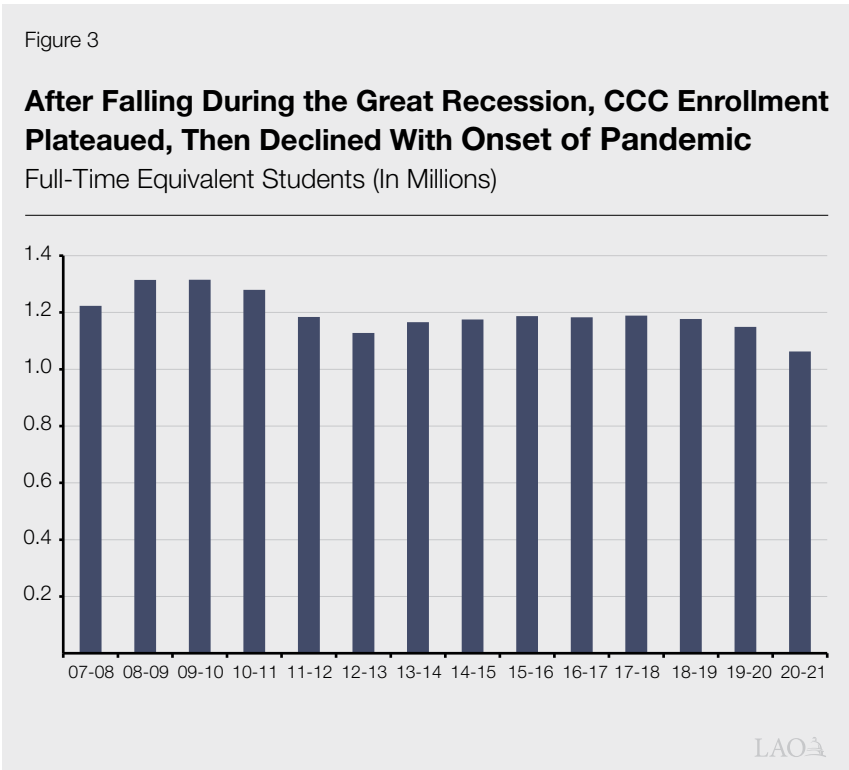
Several Factors Likely Contributing to Enrollment Drops. Enrollment drops nationally and in California have been attributed to various factors, including more student-parents staying home to provide child care, public health concerns, and disinterest among some students to taking courses online. (As of fall 2021, about two-thirds of colleges’ course sections were still being taught fully online.) Rising wages, including in low-skill jobs, and an improved job market also could be reducing enrollment demand. In response to a fall 2021 Chancellor’s Office survey of former and prospective students, many respondents cited “the need to work full time” to support themselves and their families as a key reason why they were choosing not to attend CCC. For these individuals, enrolling in a community college and taking on the associated opportunity cost might have become a lower priority than entering or reentering the job market.

Colleges Have Been Trying a Number of Strategies to Attract Students. Using federal relief funds, as well as state funds provided in the 2021-22 budget, colleges generally have been trying many tactics to attract students. Many colleges are using student survey data to adjust their course offerings and instructional modalities. Colleges are beginning to offer more flexible courses, with shorter terms and more opportunities to enroll throughout the year (rather than only during typical semester start dates). Colleges have been offering students various forms of financial assistance. For example, all colleges are providing emergency grants to financially eligible students, and some colleges are offering gas cards or book and meal vouchers to students who enroll. Many colleges are loaning laptops to students. Many colleges have expanded advertising through social media and other means. Additionally, many colleges have increased outreach to local high schools and created phone banks to contact individuals who recently dropped out of college or had completed a CCC application recently but did not enroll.

Proposals

Funds Enrollment Growth. The budget includes \$25 million Proposition 98 General Fund for 0.5 percent systemwide enrollment growth (equating to about 5,500 additional FTE students) in 2022-23. (The state also provided funding for 0.5 percent systemwide enrollment growth in 2021-22.) Consistent with regular enrollment growth allocations, each district in 2022-23 would be eligible to grow up to 0.5 percent. Provisional budget language would allow the Chancellor’s Office to allocate any ultimately unused growth funding to backfill any shortfalls in apportionment funding, such as ones resulting from lower-than-estimated enrollment fee revenue or local property tax revenue. The Chancellor’s Office could make any such redirection after underlying data had been finalized, which would occur after the close of the fiscal year. (This is the same provisional language the state has adopted in recent years.)

Proposes Another Round of One-Time Funding to Boost Outreach to Students. The Governor proposes \$150 million one-time Proposition 98 General Fund for student recruitment and retention strategies. This is on top



of the \$120 million one time provided in the 2021-22 budget (\$20 million approved through early action and \$100 million approved through the final budget package). Like the initiative funded last year by the Legislature, the purpose of these proposed funds is for colleges to reach out to former students who recently dropped out and engage with prospective or current students who might be hesitant to enroll or reenroll at the colleges. Provisional language gives the Chancellor's Office discretion on the allocation methodology for the funds but would require that colleges experiencing the largest enrollment declines be prioritized. The provisional language also permits the Chancellor's Office to set aside and use up to 10 percent of the funds for statewide enrollment and retention efforts. (The state adopted these same provisions for the \$100 million approved as part of the final 2021-22 budget package.)

Assessment

Better Information Is Coming to Inform Legislature's Decision on Enrollment Growth.

By the time of the May Revision, the Chancellor's Office will have provided the Legislature with final 2020-21 enrollment data and initial 2021-22 enrollment data. This data will show which districts are reporting enrollment declines and the magnitude of those declines. It also will show whether any districts are on track to earn any of the 2021-22 enrollment growth funds. If some districts are on track to grow in the current year, it could mean they might continue to grow in the budget year. Even if the entire amount ends up not being earned in the current year or budget year, remaining funds can be used to cover apportionment shortfalls. If no such shortfalls materialize, the funds become available for other Proposition 98 purposes, including other community college purposes.

Key Unknowns in Assessing One-Time Funding Proposal. Assessing the Governor's outreach proposal to fund additional student recruitment, reengagement, and retention is particularly challenging for a few reasons. First, the state does not know how much of last year's student outreach allocation colleges have been spent or encumbered to date. (Colleges are not required to report this information to the state.)

Second, the state has no clear way of deciphering how effective colleges' spending in this area has been. Given continued enrollment declines, one might conclude that the funds have not achieved their goal of bolstering enrollment. Enrollment declines, however, might have been even worse without the 2021-22 student outreach funds. Third, some factors driving enrollment changes—including the economy, current favorable job market, students' need to care for family, and students' risk calculations relating to COVID-19—are largely outside colleges' control. To the extent these exogenous factors are stronger in driving student behavior than college advertisements or phone banks, student outreach might not be a particularly promising use of one-time funds.

Recommendations

Use Forthcoming Data to Decide Enrollment Growth Funding for 2022-23.

We recommend the Legislature use updated enrollment data, as well as updated data on available Proposition 98 funds, to make its decision on CCC enrollment growth for 2022-23. If the updated enrollment data indicate some districts are growing in 2021-22, the Legislature could view growth funding in 2022-23 as warranted. Were data to show that no districts are growing, the Legislature still might consider providing some level of growth funding given that enrollment potentially could start to rebound next year. Moreover, the risk of overbudgeting in this area is low, as any unearned funds become available for other Proposition 98 purposes.

Weigh Options on One-Time Funds. To the extent the Legislature thinks colleges can effectively implement strategies to recruit students who otherwise would not have enrolled, it could approve the Governor's student outreach proposal. The Legislature, however, could weigh funding for this proposal against other one-time spending priorities for community colleges. For example, were the Legislature concerned about colleges' ability to cover continued COVID-19-related costs in 2022-23 given the expiration of federal relief funds, it could create a COVID-19 block grant. Such an approach would give colleges more flexibility to put funds where they may be the most effectively used, such as for student recruitment, mental health services, or COVID-19 mitigation.

STUDENT CENTERED FUNDING FORMULA

In this section, we provide background on CCC's apportionment formula, describe the Governor's proposal to modify it, assess the proposal and formula more broadly, and provide recommendations aimed at improving the formula.

Background

State Adopted New Apportionment Funding Formula in 2018-19. For a number of years, the state allocated general purpose funding to community colleges based almost entirely on enrollment. Districts generally received an equal per-student funding rate. Student funding rates were not adjusted according to the type of student served or whether students ultimately completed their educational goals. In 2018-19, the state moved away from that funding model. In creating SCFF, the state placed less emphasis on seat time and more emphasis on students achieving positive outcomes. The new funding formula also recognized the additional cost that colleges have in serving students who face higher barriers to success (due to income level or other factors). Another related objective was to provide a strong incentive for colleges to enroll low-income students and ensure they obtain financial aid to support their educational costs.

New Formula Has Three Main Components. The components are: (1) a base allocation linked to enrollment, (2) a supplemental allocation linked to low-income student counts, and (3) a student success allocation linked to specified student outcomes. We describe these components in more detail in the next three paragraphs. For each of the three components, the state set new funding rates, with the rates to increase in years in which the Legislature provides a COLA. The new formula does not apply to incarcerated students or dually enrolled high school students. It also does not apply to students in noncredit programs. Apportionments for these students remain based entirely on enrollment.

Base Allocation. As with the prior apportionment formula, the base allocation of SCFF gives a district certain amounts for each of its colleges and state-approved centers, in recognition of the fixed costs entailed in running an institution. (This funding for fixed institutional costs is known as districts' "basic allocation.") On top of that allotment, it gives a district funding for each credit FTE student (about \$4,200 in 2021-22). Calculating a district's FTE student count involves several somewhat complicated steps, but basically the count is based on a three-year rolling average. The rolling average takes into account a district's current-year FTE count and counts for the prior two years.

Supplemental Allocation. SCFF provides an additional amount (about \$1,000 in 2021-22) for every student who receives a Pell Grant, receives a need-based fee waiver, or is undocumented and qualifies for resident tuition. Student counts are "duplicated," such that districts receive twice as much supplemental funding (about \$2,000 in 2021-22) for a student who is included in two of these categories (for example, receiving both a Pell Grant and a need-based fee waiver). The allocation is based on student counts from the prior year. In 2019, an oversight committee made a recommendation to add a new factor to the supplemental allocation (as well as the student success allocation), as described in the box on the next page.

Student Success Allocation. The formula also provides additional funding for each student achieving specified outcomes, including obtaining various degrees and certificates, completing transfer-level math and English within the student's first year, and obtaining a regional living wage within a year of completing community college. (For example, a district generates about \$2,350 in 2021-22 for each of its students receiving an associate degree for transfer. The formula counts only the highest award earned by a student.) Districts receive higher funding rates for the outcomes of students who receive a Pell Grant or need-based fee waiver, with somewhat

greater rates for the outcomes of Pell Grant recipients. The student success component of the formula is based on a three-year rolling average of student outcomes. The rolling average takes into account outcomes data from the prior year and two preceding years.

Statute Weights the Three Components of the Formula. Of total apportionment funding, the base allocation accounts for approximately 70 percent, the supplemental allocation accounts for 20 percent, and the student success allocation accounts for 10 percent.

New Formula Impacted Districts Differently. The 2018-19 budget provided a \$175 million ongoing Proposition 98 General Fund augmentation (above the apportionments COLA that year) to transition to SCFF. The funding increase (equating to less than 3 percent that year) was in recognition of the slightly higher cost of the new formula. The impact of the new formula on district funding levels varied. Primarily because

SCFF provides additional funding for districts serving financially needy students, a number of districts in high-poverty areas of the state (such as in several rural areas of the state and various districts in the Central Valley) generated up to 20 percent increases in their apportionment funding compared with their allocations under the former funding formula. Other districts—mainly concentrated in more affluent areas of the state (such as the Bay Area and Coastal California)—generated about the same or even somewhat less funding under SCFF than how they fared under the former formula. (So-called “basic aid” or “fully community-supported” districts whose revenues from local property taxes and enrollment fees are in excess of their total allotment under the funding formula do not receive their funding based on SCFF’s rules. In 2020-21, the CCC system had eight such districts. In addition, CCC’s 73rd and newest district, Calbright College, is funded entirely through a categorical program.)

Oversight Committee Recommendation

Committee Was Charged With Studying Possible Modifications to Funding Formula.

The statute that created the Student Centered Funding Formula also established a 12-member oversight committee, with the Assembly, Senate, and Governor each responsible for choosing four members. The committee was tasked with reviewing and evaluating initial implementation of the new formula. It also was tasked with exploring certain changes to the formula over the next few years, including whether the supplemental allocation should consider first-generation college status and incoming students’ level of academic proficiency. Statute also directed the committee to consider whether low-income supplemental rates should be adjusted for differences in regional cost of living. The committee officially sunset on January 1, 2022.

Committee Recommended Adding First-Generation College Status to Formula.

In December 2019, the committee recommended that counts of first-generation college students be added to the supplemental allocation as well as the student success allocation. The committee recommended defining “first generation” as a student whose parents do not hold a bachelor’s degree. (Currently, community colleges define first generation as a student whose parents do not hold an associate degree or higher.) The oversight committee recommended using an “unduplicated” count of first-generation and low-income students. (This means a student who is both a first-generation college goer and low income would be counted as one for purposes of generating supplemental funding.) Oversight committee members ultimately rejected or could not agree on the issues of adding incoming students’ academic proficiency and a regional cost-of-living adjustment to the formula.

Temporary Hold Harmless Provision Intended to Ease Transition to New Formula.

The new funding formula included a temporary “hold harmless” provision for those districts that would have received more funding under the former apportionment formula. The intent of the hold harmless protection was to provide time for those districts to ramp down their budgets to the new SCFF-generated funding level or find ways to increase the amount they generate through SCFF (such as by enrolling more financially needy students or improving student outcomes).

Sunset Date of Hold Harmless Provision Has Been Extended Multiple Times. Districts funded according to this hold harmless provision receive whatever they generated in 2017-18 under the old formula, plus any subsequent apportionment COLA provided by the state. The original hold harmless provision was scheduled to expire at the end of 2020-21. The 2019-20, 2020-21, and 2021-22 budgets all extended when the hold harmless provision would end. Currently, it is scheduled to expire at the end of 2024-25. After that, statute generally stipulates those districts are to be funded annually based on the higher of (1) what they generate under SCFF or (2) the per-student rate they received in 2017-18 under the former apportionment formula (which was \$5,150 for most districts) multiplied by their current FTE student count. Based on preliminary data, in 2020-21, about 20 of CCC’s 64 local nonbasic-aid districts received a total of about \$160 million in hold harmless funds. (In other words, these districts collectively received about \$160 million more than they generated under SCFF.)

Certain Aspects of Formula Have Been Temporarily Modified. While statute specifies the years of data that are to be used to calculate the amount a district receives under SCFF (that is, for districts that are not on hold harmless or basic aid districts), state regulations provide the Chancellor’s Office with authority to use alternative years of data in extraordinary cases. Known as the “emergency conditions allowance,” the Chancellor’s Office has been allowing districts to use alternative (pre-pandemic) enrollment data for 2019-20, 2020-21, and 2021-22. The purpose of this emergency conditions allowance is to prevent districts from having their apportionment funding

reduced due to enrollment drops resulting from the pandemic. (The emergency conditions allowance is only on the enrollment component of the SCFF. The supplemental and student success allocations continue to be based on the years specified in statute.) While final 2020-21 data will not be released by the Chancellor’s Office until late February 2022, we estimate that about 40 of CCC’s 64 local nonbasic-aid districts will have claimed COVID-19 emergency conditions allowance that year—likely providing them with a total of between \$150 million and \$200 million in funding protections. It is likely that about the same number are claiming the COVID-19 emergency conditions allowance in 2021-22. (Currently, four other districts can claim emergency conditions allowances for other extraordinary situations, such as from enrollment losses resulting from wildfires.)

Chancellor’s Office Is Analyzing Data to Determine a Possible Emergency Conditions Allowance for 2022-23. In spring 2021, the Chancellor’s Office issued a memo to community colleges signaling its intent to extend the COVID-19 emergency conditions allowance “for one final year” in 2021-22. According to the Chancellor’s Office, the Board of Governors, which has the regulatory authority to adopt emergency conditions allowances, will revisit whether to extend the emergency conditions allowance in spring 2022. The decision about whether to extend the allowance through 2022-23 will be based on an examination of districts’ current-year enrollment trends, actions taken by districts to mitigate enrollment declines, and the health safety conditions in the state.

Proposals

Proposes to Change Hold Harmless Provision. The Governor is concerned that districts funded according to the existing hold harmless provision are on track to experience fiscal declines when the provision expires at the end of 2024-25. To address this issue, the Governor proposes to create a new funding floor based on districts’ hold harmless level at the end of 2024-25. Specifically, he proposes that, starting in 2025-26, districts be funded at their SCFF-generated amount that year or their hold harmless amount in 2024-25, whichever is higher. Whereas SCFF rates would continue to receive

a COLA in subsequent years, a district's hold harmless amount would not grow. The intent is to eventually get all districts funded under SCFF, with SCFF-generated funding levels over time surpassing districts' locked-in-place hold harmless amounts.

Supports Adding First-Generation

Metric to SCFF. The Governor also signals his interest in adopting the oversight committee's recommendation to incorporate first-generation college students into SCFF. Consistent with the committee's recommendation, the metric would be an unduplicated count (with a first-generation student who is also low income counting once for SCFF purposes). The Department of Finance indicates that colleges currently may not be collectively or uniformly reporting this data to the Chancellor's Office. (Currently, districts are relying on students self-identifying as first generation, and districts are not consistently reporting this information to the Chancellor's Office.) The Governor thus expresses his support to add this metric once "a reliable and stable data source is available."

Does Not Address Question of Further Extending Emergency Conditions Allowance.

The Governor's budget does not include any proposal related to extending the COVID-19 emergency conditions allowance. In our discussions, the administration has noted that the Board of Governors already has the authority to do so and has not taken a position one way or another on the issue for 2022-23.

Assessment

In Proposing a New Funding Floor, Governor's Goal Is Laudable. Based on preliminary 2020-21 Chancellor's Office data, hold harmless districts generally are funded notably above the amount they generate through SCFF. These districts thus potentially face a sizeable "fiscal cliff" in 2025-26 when their current-law hold harmless provision expires. (These districts' funding declines could be made worse were their enrollment not to recover to pre-pandemic levels.) We share the Governor's concern that having districts cut their budgets to such a degree likely would be disruptive to students and staff. A better approach would be to have a more gradual reduction, which the Governor is attempting to accomplish with his hold harmless proposal.

Hold Harmless Funding Creates Poor Incentives for Districts. At the same time, being funded according to the Governor's proposed hold harmless provision creates poor incentives. The poor incentives stem from districts receiving funding regardless of the number of students they serve, the type of students they enroll, or the outcomes of those students. That is, the hold harmless provision does not promote the state's value of promoting access, equity, and student success. Moreover, some districts under the Governor's proposal will remain funded under the hold harmless provision for several years. (The exact length of time will depend on how each district's enrollment changes, how far districts' hold harmless level is currently above SCFF, and the size of future apportionment COLAs.) In the meantime, those districts would not receive funding based on workload and performance. Instead, they would continue to have limited incentives to meet student enrollment demand, offer courses in the modality and during the times of day students prefer, and innovate in ways that improve student outcomes. All this time, these districts would be funded at higher per-student rates than their district peers without an underlying rationale.

Merit to Adding First-Generation College Goers as a Metric. Although some needs of first-generation college students may be similar to those of low-income students, first-generation students also have distinct needs. National research finds that although nonfinancially needy first-generation community college students may not have financial barriers, they often lack what is referred to as "college knowledge"—knowledge of how to make curricular choices, how to consult with faculty, and how to navigate often complex transfer pathways and other program requirements. Since first-generation students do not have family members with specific knowledge of the college landscape who can offer assistance on how to navigate through the college system, these students may require additional support from their community colleges. By adding first-generation status as a metric, the state could provide districts with funds to better help these students.

Districts Currently Protected by Emergency Conditions Allowance Could Lose Enrollment Funding. Were the Board of Governors not to extend the emergency conditions allowance in 2022-23, districts that do not grow back to pre-pandemic enrollment levels in 2022-23 would generate less enrollment funding in 2023-24 than they are currently receiving. (Due to a statutory funding protection known as “stability,” these districts would receive their 2021-22 SCFF funding level, plus any COLA, in 2022-23. Beginning in 2023-24, however, their SCFF allocation would reflect their lower enrollment levels.) The Legislature may wish to consider whether it would like districts to begin adjusting their budgets in response to current enrollment conditions or provide districts another year to see if they can increase their enrollment levels.

Increasing SCFF Base Rate Would Have Several Key Benefits. Increasing the SCFF base rate would help colleges in addressing several challenges. Not only would a higher base rate help districts respond to salary and pension pressures (as discussed in the “Apportionments Increase” section of this brief), but it also could help districts facing enrollment declines (as it would soften associated funding declines). Moreover, raising the base rate would have the effect of eliminating hold harmless funding more quickly. Districts would begin generating funding under SCFF sooner, and, in turn, their incentives to serve students would be stronger sooner. A higher base rate also could result in no district receiving less funding under SCFF compared to the former funding model—perhaps helping to bolster support of the formula itself and its focus on student outcomes and support.

Recommendations

Modify Governor’s Hold Harmless Proposal by Setting a New Base SCFF Target. We recommend the Legislature begin exploring the possibility of raising base SCFF funding. Two options for raising base funding are to increase the base per-student rate and/or increase the basic

allocation all districts receive to address their fixed costs. In deciding how much to increase base funding, the Legislature might consider various factors, including colleges’ core cost drivers and student improvement goals. After deciding how to increase SCFF base funding and settling on a new level of base funding, the Legislature then could develop a plan for reaching the higher funding level, with the plan potentially stretching across several years. If the Legislature desired, it could start moving toward those higher rates in 2022-23 by redirecting some of the ongoing funds the Governor has proposed in his January 10 budget. (In the next section of this brief, we identify a potential area where the Legislature might free up ongoing Proposition 98 funds for this purpose.)

Also Move Toward Adding First Generation as a Metric. Once data are consistently reported by districts, the Legislature could further refine SCFF by adding a first-generation student metric to the SCFF supplemental and student success allocations, as recommended by the SCFF Oversight Committee. Were the Legislature to increase the SCFF base rate, it likely could integrate first generation as a metric into the formula while still preserving the overall 70/20/10 split among SCFF’s three allocation components. Modeling how much to adjust the underlying SCFF rates will become easier once data on the counts of first-generation students becomes available. In the meantime, the Legislature could direct the Chancellor’s Office to work with the colleges to improve data collection in this area.

Direct Chancellor’s Office to Provide Update on Emergency Conditions Allowance Decision. Finally, we recommend the Legislature request the Chancellor’s Office to clarify its intentions for next year with regard to the emergency conditions allowance. In particular, the Legislature should gain clarity on the specific criteria the Board of Governors intends to use in making such a determination. We recommend the Legislature direct the Chancellor’s Office to report this information to the Legislature at spring hearings.

PART-TIME FACULTY HEALTH INSURANCE

In this section, we provide background on the Part-Time Faculty Health Insurance Program, describe the Governor's proposal to provide the program a sizeable augmentation, assess the proposal, and make an associated recommendation.

BACKGROUND

Below, we provide background on faculty at the community colleges, district health care plans, and state requirements regarding health insurance.

Faculty

Instruction at CCC Is Provided by a Mix of Full-Time and Part-Time Faculty. Instruction at the community colleges is provided by nearly 20,000 full-time faculty and about 35,000 part-time faculty. Districts generally require full-time faculty to teach 15 units (credit hours) per semester (commonly five three-unit classes). Full-time faculty are either tenured or on tenure-track and are considered permanent employees of the district. In contrast, districts can decide whether to retain part-time faculty, who are considered temporary employees, for any given term depending on course scheduling and other considerations. Statute limits part-time faculty to teaching 67 percent of a full-time load at a given district (about ten units per semester or about three classes). Many part-time faculty maintain an outside job, some are retired and teaching only a course or two, and others teach part time at two or more districts (with their combined teaching load potentially equaling, or even exceeding, a full-time teaching load).

Faculty Compensation Collectively Bargained at Local Level. Both full-time and part-time CCC faculty generally are represented by unions. Each district and its faculty group (or groups) collectively bargain salary levels and benefits. (In some districts, full-time and part-time faculty are part of the same bargaining unit. In other districts, they are in separate bargaining units.)

Pay for Full-Time Faculty Is Much Higher Than for Part-Time Faculty. In 2020-21, full-time faculty were paid an average of \$105,000 annually. On average, districts paid part-time faculty \$60 per hour of instruction, with a range between \$20 per hour at the low end and \$80 per hour at the upper end. (Part-time faculty generally are not compensated for time they spend in preparation for classes or grading assignments.) Based on average pay, a part-time faculty member teaching three three-unit courses (nine hours per week) both in the fall and spring semester would earn about \$19,000 per year.

Community College Health Care Plans

Districts Provide Health Insurance to Full-Time Faculty. All districts provide some level of funding for health care benefits for full-time faculty. Typically, the district offers several medical plan options (with various costs and coverage levels) and agrees to contribute a set amount toward premium costs, with a larger amount provided if the employee has a spouse or family. (A premium is the amount paid to an insurance company to have a health insurance plan. Health insurance plans also typically have patient copays and deductibles, which reflect direct out-of-pocket costs. For example, a plan might charge a patient a set amount for a particular medical service or hospital stay.) In many districts, the amount the district contributes covers the full or nearly full premium cost of the lowest-price plan for full-time faculty and all or most of the cost for the faculty's spouse and dependents. Employees are responsible for covering any remaining insurance premium costs not paid for by the district. In addition, districts often cover the full cost of dental and vision insurance for full-time faculty, with coverage also being extended to the faculty's dependents. Districts generally cover these health insurance costs using their unrestricted apportionment funding.

Decades Ago, Legislature Created a Program to Promote Part-Time Faculty Health Insurance. Part-time faculty collective bargaining agreements historically have not included district funding for health care benefits. In an effort to create an incentive for districts to negotiate and provide

subsidized health care for part-time faculty, in the 1990s the Legislature created the Part-Time Faculty Health Insurance Program. For this program, part-time faculty are defined as those with teaching assignments equal to or greater than 40 percent of a full-time assignment (typically about two courses). Through collective bargaining, districts and faculty representatives decide what health coverage to offer (such as whether to extend coverage to an employee’s family). They also decide the share of health premiums to be covered by the district and the employee. The program does not cover dental or vision insurance.

Program Designed to Cover a Portion of District Costs. The program reimburses districts (the employer) for up to half of their health insurance premium costs provided to part-time faculty. The Chancellor’s Office determines the exact share of district premiums to cover based upon the annual budget appropriation for the program. Districts generally cover remaining costs using their unrestricted apportionment funding. For years, funding for the categorical program was \$1 million ongoing. Due to the state’s fiscal condition during the Great Recession, the program’s budget was reduced to \$490,000 in 2009-10. The program has been funded at \$490,000 ongoing since that time.

Almost Half of Districts Participate but Program Covers Small Share of District Costs. Figure 4 shows that in 2020-21, 33 of CCC’s 72 local districts submitted claims to the Chancellor’s Office for reimbursement under the program. (Systemwide data are not available on all districts offering health insurance to part-time faculty. Some districts, however, do offer insurance to part-timers without seeking state reimbursement for a portion of those costs.) Just under 3,700 part-time faculty received health care coverage from these districts (about 10 percent of all part-time faculty). On average, districts covered about 80 percent of the \$31 million in total premium costs, with part-time faculty paying the remaining amount. Program reimbursements covered about 2 percent of districts’ premium costs.

Considerable Variation in Coverage Districts Offer to Part-Time Faculty. Among districts participating in the program in 2020-21, the amount of premium costs covered by the district ranged from 100 percent to under 30 percent. That is, participating part-time faculty in these districts paid between 0 percent to more than 70 percent of premium costs. In some cases, the amount the district covers for the insurance premium is based on a sliding scale of how many units a part-time faculty teaches, with a lower share of cost provided for those teaching fewer units or classes. Based on our discussions with the California Federation of Teachers and several districts, the insurance offered to part-time faculty varies significantly across the CCC system in other ways too. For example, some districts offer the same medical plans to part-time faculty as the full-time faculty, whereas part-time faculty in other districts are limited to choosing medical plans with less coverage or higher out-of-pocket costs. Some districts cover only the employee (known as “self only” coverage), whereas other districts offer at least some level of coverage to the employee’s spouse and dependents too. Districts vary as well in the number of terms a part-time faculty member must teach in a row (or within a certain period of time) to be eligible for a district-provided plan.

State Health Insurance Requirements

Most Californians Have Health Insurance. Since 2020, state law has required all adults and their dependents to have health insurance—a requirement commonly known as the “individual

Figure 4

Summary of Part-Time Faculty Health Insurance Program

2020-21

Number of districts participating	33
Share of local districts participating	46%
Number of part-time faculty participating	3,691
Share of total part-time faculty participating	About 10 percent
Total premium costs	\$31,481,326
Premium cost paid by district	\$24,722,739
Premium cost paid by employee	\$6,268,587
Annual program funding	\$490,000
Percent of district premium cost covered by program	2%

mandate.” State residents who choose to go without health insurance generally face a state tax penalty. Roughly 90 percent of Californians have health insurance. Most insured Californians receive their health insurance through their employer. In addition, Medi-Cal offers free or low-cost medical coverage to qualifying low-income adults and children in the state. Older adults generally are eligible for Medicare, a federal program that provides health insurance primarily for persons 65 years or older. California also has a state-run service, known as Covered California, as discussed below.

Health Insurance Available Through Covered California. California residents who do not receive health care coverage through their employers, spouse, or from other government programs can purchase insurance that meets established quality standards through a central health insurance marketplace known as the California Health Benefit Exchange (Covered California). Residents who meet certain qualifications (including having income below a specified level) can receive subsidized premiums and other financial assistance when they purchase an insurance plan through Covered California.

Rules Around Who Can Qualify for Premium Subsidies Under Covered California. Importantly, if a person’s employer provides a health plan that is deemed affordable to the employee and provides a specified minimum level of coverage, the employee cannot qualify for subsidies (for themselves or their families) through Covered California. (In such cases, a person can still purchase health insurance through Covered California but would pay the full cost of the plan.) Currently, employer-provided insurance is considered affordable by the federal government if the employee’s share of the annual self-only premium for the lowest-priced plan costs less than 9.6 percent of the employee’s household income. If the employer offers a plan that meets this definition of affordable (and meets certain other standards) but the employee turns it down and receives financial help through a Covered California plan, the employee has to pay back the Covered California subsidy when filing state and federal taxes.

“Family Glitch” Has Negative Implications for Some Employees. Importantly, affordability is based on the cost of a plan to cover the employee only—not the cost of the plan that would also cover their spouse or dependents. If the employer contributes little to nothing for the spouse’s and dependent’s premium, some employees may find adding family members to the employer-sponsored plan financially prohibitive. Nonetheless, the family remains ineligible for financial assistance through Covered California (as the district still offered insurance to the employee). This outcome is often referred to as the family glitch.

PROPOSAL

Governor Proposes \$200 Million Ongoing Augmentation for Part-Time Faculty Health Insurance Program. With a current program funding level of \$490,000, the proposed augmentation represents a 400-fold increase—the largest ongoing CCC augmentation in percentage terms by far. The proposed augmentation would result in this program shifting from being one of the smallest CCC categorical programs to one of the largest. The Governor’s stated intent in providing the large augmentation is to create a stronger financial incentive for more community college districts to provide medical care coverage to their part-time faculty. The Governor does not propose any other changes to the program itself.

ASSESSMENT

Problem Is Unclear. The Governor indicates an interest in expanding medical coverage for part-time faculty. The administration, however, has not yet provided any data on the number of part-time faculty who do not have health insurance. The administration also has not provided any data on the share of part-time faculty who access health insurance through an outside job, spouse, Medi-Cal, Medicare, or Covered California. (District administrators we spoke with believed that most part-time faculty have health insurance through one of these means.) Without these data, determining whether a problem exists involving health care access or affordability is not possible.

Some District-Provided Health Care Coverage May Be Disadvantaging Certain Part-Time Faculty. Some part-time faculty working in districts that offer health insurance could be worse off than had their district not offered health care. This is particularly the case if employers provide plans that keep premium costs for the employee to less than 9.6 percent of household income but provide little or no contribution toward covering the employee's family. In such cases, coverage through the district-provided plan for a spouse or dependents might cost more than coverage through a Covered California plan. Nonetheless, the availability of the district plan for the employee would prevent the family from receiving financial assistance if they enroll in a Covered California plan due to the family glitch. In such circumstances, the family could have higher health insurance costs than if no district-provided plan had been offered. Like other related data in this area, the administration has not yet provided data on how many part-time faculty are being negatively affected in this way.

Part-Time Faculty Face Greater Uncertainty With District-Provided Coverage. Given declining enrollment across the CCC system, districts have been reducing course section offerings. These reductions mean fewer teaching opportunities for part-time faculty. If part-time faculty are not hired or fall below a certain number of teaching units, they stand to lose district-provided health care or see an increase in their premium costs. Even were districts to offer robust coverage for part-time faculty and their families, the Legislature thus faces the policy question of whether this CCC program is the best way to provide them health insurance—with part-time faculty potentially fluctuating in and out of district-provided coverage. Potentially having to change health plans frequently might be less optimal for part-time faculty than remaining insured under Covered California.

Proposal Raises Equity Issues for Other Part-Time Workers in State. California has many part-time employees throughout state and local government. Yet, the state generally does not fund a special health care program for these other groups. Expanding a program for part-time CCC faculty thus could create an inequity relative

to other part-time workers. Also, such a major expansion of the current program for CCC part-time faculty could set a greater precedent for dealing with each group of part-time workers separately, potentially introducing further inequities.

Proposal May Not Be the Best Approach to Improve Health Care Affordability. If the goal is to improve health care affordability and statewide coverage, the Governor's proposal might not be the best approach as it likely would only impact a relatively small number of residents. Notably, a recent report from Covered California highlights various options to offer increased financial assistance to a much broader group of Californians than this proposal, with state costs ranging from \$37 million to \$452 million. These options are designed to reduce or eliminate various health care costs (such as the amount patients must pay for certain medical services and the maximum they are required to pay out-of-pocket in a given year) for low- and middle-income Californians who have purchased health plans through Covered California. (Our forthcoming publication, *The 2022-23 Budget: Analysis of Health Care Access and Affordability Proposals*, will provide additional details and assessment of these options.)

RECOMMENDATION

More Information Is Needed to Assess How Best to Enhance Health Coverage.

The Legislature needs additional information if it is to assess the implications of the Governor's proposal. In particular, the Legislature needs clarification about what problem the administration is trying to solve, the extent of the problem, and why the proposal in the Governor's budget is the most optimal solution. The Legislature also needs information allowing it to compare the health coverage for part-time faculty to other part-time workers in the state. Without this information, moving forward with the Governor's proposal could have unintended, counterproductive effects—potentially exacerbating rather than mitigating health coverage inequities. Furthermore, gathering more information on these issues likely would take several months, making budget action for 2022-23 impractical.

Legislature Could Task Administration With Providing This Information. If the Legislature is interested in enhancing health coverage for part-time workers, it could direct the administration, in coordination with the Chancellor’s Office, to obtain more information on the insured status of part-time faculty and on the part-time faculty health care plans currently offered by districts. The Chancellor’s Office could survey part-time faculty and districts to learn, at a minimum:

- What percent of part-time faculty have health insurance? What is the source of their health insurance?
- What factors are driving whether districts offer health insurance to part-time faculty and what factors are driving the type of coverage they provide?

- For districts that offer health insurance to part-time faculty, does the coverage extend to the employee’s family? If so, how much of the premium is covered by the district? How many part-time faculty are on this type of coverage?

The Legislature similarly could direct the administration to work with other state agencies to gather comparable information for other part-time workers in the state. The Legislature could give the administration until October 2022 to submit this information. With such information, both the administration and Legislature would be much better positioned to inform potential budget decisions for 2023-24 and decide how best to enhance health coverage for part-time workers in California.

FACILITY MAINTENANCE

In this section, we provide background on CCC’s maintenance backlog and maintenance categorical program, describe the Governor’s proposal to fund deferred maintenance and other projects, assess the proposal, and offer associated recommendations.

Background

CCC Maintains Inventory of Facility

Conditions. Community college districts jointly developed a set of web-based project planning and management tools called FUSION (Facilities Utilization, Space Inventory Options Net) in 2002. The Foundation for California Community Colleges (the Foundation) operates and maintains FUSION on behalf of districts. The Foundation employs assessors to complete a facility condition assessment of every building at districts’ campuses and centers on a three- to four-year cycle. These assessments, together with other facility information entered into FUSION, provide data on CCC facilities and help districts with their local planning efforts.

State Has a Categorical Program for Maintenance and Repairs. Known as “Physical Plant and Instructional Support,” this program allows districts to use funds for facility maintenance

and repairs, the replacement of instructional equipment and library materials, hazardous substances abatement, architectural barrier removal, and water conservation projects, among other related purposes. To use this categorical funding for maintenance and repairs, districts must adopt and submit to the CCC Chancellor’s Office through FUSION a list of maintenance projects, with estimated costs, that the district would like to undertake over the next five years. In addition to these categorical funds, CCC districts fund maintenance from their apportionments and other district operating funds (for less expensive projects) and from local bond funds (for more expensive projects). Statute requires districts to spend at least 0.5 percent of their current general operating budget on ongoing maintenance. Statute also contains a maintenance-of-effort provision requiring districts to spend annually at least as much on facility operations and maintenance as they spent in 1995-96 (about \$300 million statewide), plus what they receive from the Physical Plant and Instructional Support program. (Given inflation since 1995-96, coupled with the 0.5 percent general operating budget requirement, districts tend to be spending far above this maintenance-of-effort level.)

State Has Provided Substantial Funding for Categorical Program Over Past Several Years. Historically, the Physical Plant and Instructional Support categorical program has received appropriations when one-time Proposition 98 funding is available and no appropriations in tight budget years. Since 2015-16, the Legislature has provided a total of \$955 million for the program. The largest appropriation came from the 2021-22 budget, which provided a total of \$511 million. According to the Chancellor's Office, thus far districts have chosen to use nearly three-quarters (about \$365 million) of these 2021-22 funds for deferred maintenance and other facility-related projects, with the remaining one-quarter of funds intended for instructional support purposes.

Even With Recent Funding, Chancellor's Office Reports Sizeable Maintenance Backlog. Entering 2021-22, the Chancellor's Office reported a systemwide deferred maintenance backlog of about \$1.6 billion. Because of the funds provided in the 2021-22 budget (plus local spending on projects), the backlog has been reduced to about \$1.2 billion. This is the same size as the CCC backlog identified back in 2017-18. Since that time, state funding effectively has kept the backlog from growing but not shrunk it.

Proposal

Governor Proposes \$388 Million One Time for Physical Plant and Instructional Support Program. Of this amount, \$109 million is 2022-23 Proposition 98 General Fund and a total of \$279 million is Proposition 98 settle-up funds (\$182 million attributed to 2021-22 and \$97 million attributed to 2020-21). The Governor excludes all \$388 million from SAL. In addition to the categorical program's existing allowable purposes, proposed trailer language would allow districts to use the funds for energy efficiency projects. Districts would have until June 30, 2024 to encumber the funds.

Assessment

Proposal Reflects a Prudent Use of One-Time Funding. Providing funds for deferred maintenance projects would address an existing need among districts. Addressing this need can help avoid more expensive facilities projects, including emergency

repairs, in the long run. Funding energy efficiency projects also could be beneficial, as these projects are intended to reduce districts' utility costs over time. In addition, instructional equipment and related support is core to CCC's mission of delivering quality educational services to students.

One-Time Funding Does Not Address Underlying Cause of Backlog. Deferred maintenance backlogs tend to emerge when districts do not consistently maintain their facilities and infrastructure on an ongoing basis. Although one-time funding can help reduce the backlog in the short term, it does not address the underlying ongoing problem of underfunding in this area. Though districts are required to spend a certain share of their general operating funds on ongoing maintenance, the current rate (0.5 percent) may not be sufficient given the maintenance backlog exists and would have grown absent state categorical funding the past several years.

Recommendations

Consider Governor's Proposal as a Starting Point. To address CCC's maintenance backlog, we recommend the Legislature provide at least the \$388 million proposed by the Governor. As it deliberates on the Governor's other one-time proposals and receives updated revenue information on the Proposition 98 minimum guarantee in May, the Legislature could consider providing CCC with more one-time funding for this purpose.

Consider Developing Strategy to Address Ongoing Maintenance Needs. In addition to providing one-time funding for deferred maintenance, we encourage the Legislature to begin developing a long-term strategy around CCC maintenance. Potential issues to consider include whether the current statutory expectation around district spending on maintenance is sufficient, what fund sources to use for maintenance, the mix of funding provided ongoing versus on a one-time basis, the period over which to address the existing maintenance backlog, and associated reporting. Given the magnitude of maintenance needs at CCC, developing such a strategy would likely require planning beyond the 2022-23 budget cycle.

LAO PUBLICATIONS

This report was prepared by Paul Steenhausen, and reviewed by Jennifer Pacella and Anthony Simbol. The Legislative Analyst's Office (LAO) is a nonpartisan office that provides fiscal and policy information and advice to the Legislature. To request publications call (916) 445-4656. This report and others, as well as an e-mail subscription service, are available on the LAO's website at www.lao.ca.gov. The LAO is located at 925 L Street, Suite 1000, Sacramento, California 95814.

Full-time Equivalent Students 2017-18 to 2021-22

Full-time Equivalent Students					
	2017-18	2018-19	2019-20	2020-21	2021-22
American River College	19,351	19,026	18,285	15,806	14,787
Cosumnes River College	9,132	9,419	9,734	8,968	8,571
Folsom Lake College	5,578	5,748	5,929	5,814	5,357
Sacramento City College	13,785	13,760	13,581	12,210	11,437
District Total	47,847	47,954	47,529	42,798	40,152
Year-over-year Change					
	2017-18	2018-19	2019-20	2020-21	2021-22
American River College	-3.3%	-1.7%	-3.9%	-13.6%	-6.4%
Cosumnes River College	-0.3%	3.1%	3.3%	-7.9%	-4.4%
Folsom Lake College	-1.8%	3.1%	3.1%	-1.9%	-7.9%
Sacramento City College	-3.8%	-0.2%	-1.3%	-10.1%	-6.3%
District Total	-2.7%	0.2%	-0.9%	-10.0%	-6.2%
Notes:					
-Only includes resident students, but we are seeing a decline in nonresident students as well.					
-Does not include changes in reporting to maximize revenue (i.e. "summer shift", etc.).					
-2021-22 does not include a decline anticipated based on what has been observed for Spring 22 (~3%).					



2022 REPORT

Call to Action: Reimagining Campus Policing Task Force Recommendations

California Community Colleges Chancellor's Office | Eloy Ortiz Oakley, Chancellor



Letter from California Community Colleges Chancellor Eloy Ortiz Oakley

The past two years have been revealing to say the least. COVID-19 exacerbated socio-economic disparities, especially among people of color. Civil and social unrest continued to reveal deeply rooted injustices and structural racism that persistently and negatively impacts all of us. These socio-economic upheavals can be catalysts for change and provide lessons for all segments of society.

As we absorb these lessons as a state and diverse community leaders, the California Community Colleges, and by extension, this Reimagining Campus Policing Task Force, we have a role to play in learning from 2020 and beyond. On behalf of the Board of Governors of the California Community Colleges, we have issued a broad, six-part Call to Action. To address the first area of the Call to Action, which is focused on campus policing practices, a diverse Reimagining Campus Policing Task Force has been assembled. After nearly a year, the task force has drafted a set of substantive recommendations to enhance campus policing and campus climate as well as impact student success as part of this broad Call to Action to mitigate structural racism.

This Reimagining Campus Policing Task Force was specifically engaged to mobilize around the first Call to Action:

- 1. A California Community Colleges systemwide review of law enforcement officer and first responder training and curriculum.**
2. Campus leaders should host open dialogue and address campus climate.
3. Campuses should audit classroom climate and create an action plan to create inclusive classrooms and anti-racism curriculum.
4. District Boards review and update equity plans with urgency.
5. Shorten the time frame for the full implementation of the Diversity, Equity and Inclusion Integration Plan.
6. Join and engage in the Vision Resource Center “Community Colleges for Change.”

When we look back in a year, or five years, what will we see? Will this task force be credited with recommendations that led to stronger policies and regulations that made a difference? Will college and campus police leaders be remembered for their

commitment to reimagining campus climate and public safety? Will students, faculty and members of the campus community feel more welcomed, secure and safe? We think all of this is possible. Thank you all for being part of this task force, for the difficult but necessary dialogue this work included, and for moving our system, state, students and communities forward in inclusive ways with meaningful and impactful recommendations.

Sincerely,

A handwritten signature in black ink, appearing to read 'EOO', with a stylized, flowing script.

Eloy Ortiz Oakley, Chancellor

CALL TO ACTION: REIMAGINING CAMPUS POLICING TASK FORCE RECOMMENDATIONS

January 4, 2022

Prepared By

California Community Colleges Chancellor's Office

Reimagining Campus Policing Task Force

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INTRODUCTION

As a student of color, I've had negative experiences with the police in the past. How welcome I feel on campus has a lot to do with the campus police force and how they treat students, especially students of color.

-Student member, Call to Action Task Force on Campus Police Reform

THE CALL TO ACTION

Increased attention to police brutality and violence against people of color has elevated scrutiny of campus police. Students have critiqued the inequitable treatment of students of color on their campuses by campus police. In doing so, the students are critiquing racial inequity in the campus climate. The California Community Colleges Chancellor's Office (Chancellor's Office) issued a *Call to Action for the California Community Colleges* in summer 2020 to eradicate systemic racism across the programs and services at California's community colleges. This scrutiny includes campus police training, practices and campus culture. The Student Senate, representing students at all 116 California community colleges, also called for [accountability and action](#).

The Chancellor's Office established an 18-member task force, representing a diversity of stakeholders and campus executive leaders, to reimagine campus policing. This reimagining of policing is critically important and must be consistent with the system's commitment to equity. If we fail to examine all parts of the campus to promote an inclusive campus climate, then we fail to advance the system's [Vision for Success](#). To support this overall effort, the Chancellor's Office partnered with Jobs for the Future (JFF) to facilitate the task force.

CAMPUS POLICING BACKGROUND

The evolution of campus policing can be traced to 1898 when Yale University hired two off-duty City of New Haven police officers to patrol the campus. Over the next 50 years, hundreds of colleges implemented similar campus policing functions. In the late 1960s and early 1970s, the first campus police departments appeared in response to growing levels of campus unrest. Part of the solution was for colleges and universities to create their own police departments that would keep order but also be part of the larger campus community. Via legislators, college administrators were successful in enabling legislation passed in multiple states, including California.¹

Today, campus policing policy, regulations and data collection across California's community colleges is complex. The system office has limited data and line sight into local campus policing practices and policies. Local campuses have structured vastly different models of policing. Generally, community college policing is provided by an on-campus police department or through contracted services by a third party. This shapes how officers are hired, trained and evaluated, who is responsible for funding of services, and even the level of interaction on campus with students and faculty.

¹ J. Sloan. **Race, Violence, Justice, and Campus Police**. Footnotes: The American Sociological Association. July/August 2020, Vol. 48 Issue 4. asanet.org

In addition, California’s state constitution and Education Code creates a funding mechanism for community college policing² and establishes an entitlement to safe schools³. [The Clery Act](#) requires disclosure related to safety, specifically requiring community colleges to record specific campus crime statistics and safety policies for student and consumer protection.

SYSTEM IMPERATIVES

The work of the task force is part of a comprehensive, systemic effort to address the complexities of structural racism that has been an autonomous and distinct campus function. The Chancellor’s Office provided leadership to drive several imperatives to:

- *Establish **systemic campus policing reform***, not isolated practices, to fully address the need for cultural and practice changes that are consistent across the 116 community colleges.
- Advance recommendations that will ***enhance transparency*** in campus policing, so the campus community and police departments understand the impact of police student interactions on campus climate.
- Integrate the centrality of student well-being and success in the campus police culture to develop ***student-centered policies and practices*** that result in campus police playing a role in student success.
- ***Center diversity, equity and inclusion principles*** in campus policing reforms to develop campus policing culture and practices that reflect a commitment to the success of a campus’s diverse student body.

THE TASK FORCE CHARGE

To make these imperatives actionable, the task force has met the clear charge from the Chancellor’s Office to make recommendations concerning:

1. Baseline policies and regulations related to on-campus policing that bring practices into alignment with campus cultures that center student success.
2. Transparency of system and campus reporting on campus policing data and incidents to students and the public.
3. Recruitment and hiring to promote diversity among campus police.
4. Removal of police officers found to be unsuitable for on-campus employment.
5. State-level support and resources that will enhance campus efforts to reform campus and community policing practices and police personnel workforce reforms.

With this charge, the task force members developed recommendations for the Chancellor’s Office that are actionable while also building out long-term and sustainable change across the system.

² Cal. Const., art. XIII, § 36, subds. (a) and (e).

³ (Cal. Const., art. I, § 28(b)(7); Cal. Const., art. I, § 28(f).)

TASK FORCE RECOMMENDATIONS

Reimagining campus policing is a multi-dimensional challenge. Changes of this magnitude require system-level infrastructure and the capacity to work collaboratively with campus leadership and stakeholders. Over the course of three task force meetings, the task force members rose to the challenge and developed recommendations that satisfied the Chancellor’s Office charge. The chart below captures the recommendations.

Task Force Charge	Draft Recommendations
<p>Baseline policies and regulations related to on-campus policing that bring policies into alignment with best practices</p>	<ol style="list-style-type: none"> 1. Establish a structure for system and campus level coordination for operational responsibility and accountability for safe and inclusive campuses. 2. Integrate relevant commitments from <i>Vision for Success/Diversity, Equity and Inclusion framework</i> into campus policing reforms to ensure student-centered redesign and student input for campus policing. 3. Establish processes and guidelines for accountability for campus policing that includes multiple campus stakeholders, including students. 4. Expand category of “first responders” to include mental health professionals, social workers, CARE trained faculty, staff and administrators, as well as other counselors, to minimize unnecessary police interactions and mitigate escalation. 5. Redesign professional development that promotes inclusive and equitable student-centered guiding principles for campus police and <i>staff/faculty</i> for productive interpersonal interactions (e.g., training on de-escalation techniques, peer intervention, interrupting bias)

Task Force Charge	Draft Recommendations
<p>Increasing transparency of system and campus reporting on campus policing data and incidents to students and the public</p>	<ul style="list-style-type: none"> <li>6. Establish Chancellor’s Office systems-level campus policing data infrastructure to support collection and analysis to inform campus safety, connect to student success, and provide a feedback system for improvement and transparency. <li>7. Establish a baseline for systemwide data collection with consistent Key Performance Indicators (KPI) for campus policing interactions and campus climate, disaggregated across student demographics. <li>8. Determine an annual process in which campus police departments augment Clery Act data with a report to students, campus community, and systemwide, campus policing performance and disaggregated data on campus police interactions.
<p>Develop policy on recruitment and hiring to promote diversity among campus police</p>	<ul style="list-style-type: none"> <li>9. Develop minimum performance standards for campus police personnel that includes a framework, such as Critical Decision-Making Model and balanced scorecard, with public sharing of data for increased transparency and culture shift. <li>10. Conduct a feasibility study for pathways into campus policing by aligning to the emerging degree in Modern Policing, and possible development of an academy for training and professional development specific to college policing beyond the POST + model. <li>11. Embed Diversity, Equity and Inclusion standards into campus policing performance evaluations to promote an equitable and inclusive campus and workplace culture. <li>12. Review hiring protocols across the system that promote DEI and student-centered values (signaling commitment to “guardian” instead of “warrior” culture by encouraging recruitment of campus police from diverse sources, broadening beyond local/community police staff, and ensuring the contextual differences between on policing on college campuses and in other municipalities/communities.

Task Force Charge	Draft Recommendations
<p>Develop policy for the removal of police officers found to be unsuitable for on-campus employment</p>	<ul style="list-style-type: none"> 13. Ensure campus leadership has decision-making authority for removal of officers, including when campuses contract with local police agencies. 14. Develop clear accountability expectations for campus leadership over campus policing practice and culture whether campus policing is campus-hired or outsourced. 15. Develop policy, in keeping with recent legislation, for the ability of campus police departments to make a police officer’s disciplinary history available to other agencies when an officer is removed, such as those seeking a reference for future hiring. 16. Establish peer-intervention training and protection for officers who do intervene, from retaliation or other consequences.
<p>Inform strategies for state-level support and resources that will enhance campus efforts to reform campus & community police practices and police personnel workforce reforms</p>	<ul style="list-style-type: none"> 17. Set minimum campus police department standards across the system with resources for attaining accreditation (POST, IACLEA, or similar) for transparency and cycles of review for continuous improvement. 18. Establish a baseline campus-policing “landscape analysis” to understand organizational and accountability structure for campus policing at the local level. 19. Develop a college-student set of guiding principles (compact?) to establish baseline expectations for campus police to interact with students and the campus community, and for students to have a voice in their campus experience and formal mechanism for reporting incidents (positive and negative). 20. Review the reporting structure of campus police departments to ensure the function of policing is integrated into college strategic and equity planning and is fully supporting the <i>Vision for Success</i> and DEI goals.

STAKEHOLDER ENGAGEMENT

These recommendations were the result of a robust process of engaging with the many voices expressing a deep desire for fundamental change. Diverse stakeholders from within the community college system and from the communities and organizations with expertise served on the task force.

TASK FORCE MEMBERS:

- **Matthew Besmer**, General Counsel for the State Center Community College District
- **Barbara Calhoun**, Clerk, Compton Community College, Trustee Area 2 representative
- **Stephanie Curry**, Reedley College Academic Senate Past President & Faculty Guided Pathways Coordinator
- **Michael Dolphin**, (retired) Chief of the Los Angeles County and Ventura County Workforce Services Division
- **Carole Goldsmith**, President of Fresno City College
- **Nekoda (Nikki) Harris**, Executive Director of Human Resources at the College of Marin
- **Lance Heard**, Mt. San Antonio College Academic Senate Co-Vice President & Professor of Administration of Justice
- **Kristen Huyck, EdD**, Director of Public & Governmental Relations, Marketing & Communications at Mira Costa Community College
- **Stephen Kodur**, (former SSSCC officer) Community Organizer at the Student Senate for California Community Colleges
- **Ka Ren Mac Calla**, (former SSSCC officer) President of the Black Student Union at Moorpark College
- **Obed Magny**, Police Officer at Sacramento Police Department & Professor at Brandman University
- **Ross Miyashiro**, Vice President of Student Services at El Camino College
- **Jane Saldaña-Talley, EdD**, Vice President of Academic Affairs at Santa Rosa College
- **Linda Vaughn**, President of South Bay Regional Public Safety Training Consortium
- **Bryan Ventura**, Dean of Institutional Effectiveness and Advancement at East Los Angeles College
- **Amber Wade**, Chief of Police Napa Valley College

SUBJECT MATTER EXPERTS:

- **Josh Bronson**, Director of Education & Leadership Development, International Association of Campus Law Enforcement Administrators (IACLEA)
- **Chief, Dr. Clarence Green**, Vice President of Culture and Chief of University Police at Northwest Missouri State University
- **John Hetts, PhD**, Visiting Executive, Research and Data, California Community Colleges;
- **Benjamin Hunter**, Associate Vice President for Public Safety and Institutional Assurance and Superintendent for Public Safety at Indiana University

- **Lennor Johnson**, Vice President of Student Services and Equity at Imperial Valley College
- **Valerie Lundy-Wagner, PhD**, Assistant Vice Chancellor for the Research and Data Analytics Unit, California Community Colleges
- **Desirée Nero**, CEO, Epiphany Life, LLC and Leadership Instructor at Palm Beach State College Criminal Justice Institute

CHANCELLOR’S OFFICE STAFF:

- **Marty Alvarado**, Executive Vice Chancellor for Educational Services
- **Paul Feist**, Vice Chancellor for Communications
- **Lakresha Jenkins**, Administrative Assistant for Educational Services and Support
- **Marc LeForestier**, General Counsel
- **Sheneui Weber**, Vice Chancellor of Workforce and Economic Development

JFF TEAM:

- **Erica Acevedo**, Associate Director
- **Barbara Endel, PhD**, Senior Advisor
- **Sandra Lee**, Senior Program Manager
- **Lucretia Murphy, J.D., PhD**, Associate Vice President
- **Derek Niño, EdLD**, Associate Director

STATE AND NATIONAL STRATEGIC COMMUNICATIONS

To help inform and engage multiple constituents beyond the Task Force and their respective organizations, interested in this work, the Chancellor's Office activated a strategic communications plan. In 2021, the Chancellor's Office released a video featuring community college students, leaders from the Chancellor's Office and campus policing community brought the issues of equity, student success, and need for data to make the case for future actions. Second, a blog post was released framing the issues such as accountability, recourse for students, and effect of campus policing on the broader campus culture and climate. On-going communications to advance these recommendations will occur via digital media channels, student storytelling, and stakeholder engagement.

To engage a national audience, the Chancellor's Office sponsored a *Reimagining Campus Policing National Conversation* with several community college system leaders to share strategies and policy related changes. *Reimagining Campus Policing National Conversation* with thought leaders' virtual summit on reimagining campus policing. Attendees were from the largest community college systems in the country (IL, LA, NC, NY, FL, VA, and GA) and 7 dynamic college presidents from TX, MI, and MD, among others, to elevate reimagining campus policing with CA leading the way.

RESOURCES

- [Campus policing video](https://www.cccco.edu/About-Us/News-and-Media/California-Community-Colleges-Outlook-Newsletter/ccc-police-reform) (https://www.cccco.edu/About-Us/News-and-Media/California-Community-Colleges-Outlook-Newsletter/ccc-police-reform)
- [Blog](https://www.cccco.edu/About-Us/News-and-Media/California-Community-Colleges-Outlook-Newsletter/campus-policing) (https://www.cccco.edu/About-Us/News-and-Media/California-Community-Colleges-Outlook-Newsletter/campus-policing)
- Workforce division police training webinar series
- Vision Resource Center postings of task force meeting agendas, data and information on campus policing

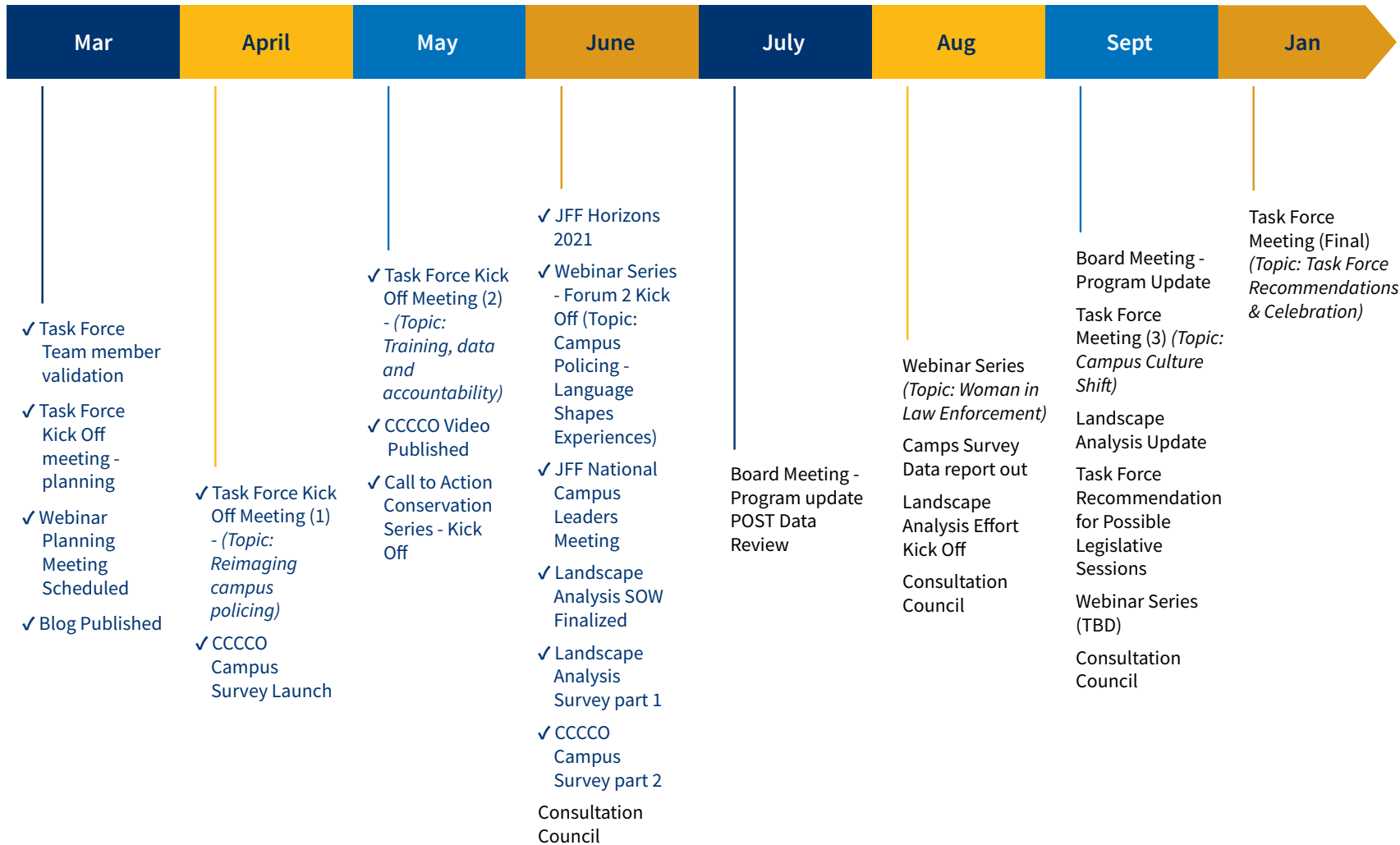
PROCESS AND TIMELINE

The process and structure of the Task Force was accomplished by designing four phases:

- 1. Discovery Phase** with campus policing research, literature review, California community colleges regulatory and statute analysis, Title IX/Clery Act review, and over fifteen campus policing subject matter expert interviews within California, and with experts from across the country representing cutting edge 21st campus policing reforms). January-June 2021.
- 1. Task Force Recruitment and Formation** with 18 Task Force members, including two students, were identified across the continuum of primary stake holder and participatory governance organizations (i.e. Student Senate, Faculty Senate, Board of Trustees, and CEOs,) accepted the invitation to serve on the Task Force. February-March 2021
- 2. Recommendations Development** by the Task Force over the course of four half-day virtual meetings. The timeline is presented below. April-November 2021. A Briefing Book for Task Force members, synthesizing California’s campus policing evidence base, and showcasing exemplar policies and practices from across the country was provided and updated for every meeting.
- 3. Proposed Regulations** and Draft Board of Governor’s Resolution was prepared by the Chancellor’s Office in response to the guiding principles and values that emerged from the Task Force. On-going work on the regulations, policies, and/or resolution will continue from fall 2021 into spring 2022.

APPENDIX

Timeline of Task Force Activities 2021-2022



Front cover photo: Los Angeles
City College

Photo at right: Palomar College

Back cover photo: San Joaquin
Delta College



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cccco.edu

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Proposed Revisions to Title 5, California Code of Regulations, Related to Campus Climate and Public Safety

This document contains underline and strikethrough text, which may require adjustments to screen reader settings.

SECTION 51028 IS ADDED TO NEW SUBCHAPTER 1, OF CHAPTER 2, OF DIVISION 6, OF TITLE 5 OF THE CALIFORNIA CODE OF REGULATIONS TO READ:

Subchapter 1. Minimum Conditions

Section 51028. Campus Public Safety Services and Personnel.

The campus climate and public safety provisions of subchapter 11 (commencing with section 59700), of chapter 10, are included among the minimum conditions for community college districts, satisfaction of which entitles a district maintaining community colleges to receive state aid, including state general apportionment, for the support of community college operations.

In considering an enforcement action to address a district's failure to meet a campus climate and public safety minimum condition, the Chancellor shall give due consideration to the time required for faithful implementation of subchapter 11, of chapter 10, and the resources available to the district.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: California Constitution, article XIII, section 36; Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 70901, subdivision (b).

SECTION 51100 OF SUBCHAPTER 2 OF CHAPTER 2 OF DIVISION 6 OF TITLE 5 OF THE CALIFORNIA CODE OF REGULATIONS IS AMENDED TO READ:

Section 51100. Review of Colleges.

(a) The Chancellor shall annually review a minimum of three community college districts to determine whether they have met the minimum conditions contained in subchapter 1 (commencing with section 51000) of chapter 2. The reviews shall be at random from among districts that have not recently been reviewed or based on complaints, audit findings, or other information concerning compliance. ~~The Chancellor may conduct such additional.~~ Additional compliance reviews may be conducted as the Chancellor ~~as he or she~~ deems appropriate.

(b) The Chancellor shall investigate complaints alleging that a district is failing to comply substantially with the minimum conditions contained in subchapter 1 and shall establish guidelines for accepting and handling such complaints.

(c) The district shall receive notice regarding any investigation of noncompliance with the minimum conditions. If circumstances permit, the Chancellor shall provide 30 days' notice prior to any district visit to conduct the investigation. ~~In the event that the Chancellor determines that a visit to the district is necessary to investigate compliance, he or she shall make all reasonable efforts to inform the chief executive officer of the district at least one month in advance of such visit, and shall specify the particular minimum conditions that will be investigated.~~

(d) The enforcement procedures and remedies set forth in this subchapter are in addition to any and all other enforcement mechanisms and remedies provided by law for violation of the provisions of this chapter.

Note: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.

SECTION 51102 OF SUBCHAPTER 2 OF CHAPTER 2 OF DIVISION 6 OF TITLE 5 OF THE CALIFORNIA CODE OF REGULATIONS IS AMENDED TO READ:

Section 51102. Enforcement.

(a) If any review or investigation conducted pursuant to section 51100 ~~discloses~~ indicates that a district may ~~not be in~~ out of compliance with one or more minimum conditions, ~~the provisions of subchapter 1 (commencing with section 511000) of chapter 2,~~ the Chancellor shall notify the chief executive officer of the district in writing, and ~~shall request an official~~ written response from the district by a date specified, ~~which the Chancellor shall specify.~~

(b) After considering ~~receiving~~ the district's written response ~~or after the time for response has lapsed,~~ the Chancellor may take any one or more of the following actions: ~~shall pursue one or more of the following courses of action:~~

- ~~(1) accept in whole or part the district's response regarding the alleged noncompliance;~~
(1) provide recommendations to the district to achieve compliance;
(2) require the district to submit and adhere to a plan and timetable for achieving compliance as a condition for continued receipt of state aid;
(3) bar the district from eligibility for grants and/or contracts administered by the Chancellor's Office;

- (4) withhold all or part of the allocation of funds which the district would otherwise receive from any categorical program administered by the Chancellor's Office; (5) withhold or reduce ~~all or part of~~ the district's state aid, including state general apportionment, and/or growth funding;
- (6) require the district to re-allocate funds in a manner designed to address the noncompliance;
or
- (7) take no further action.

(c) The remedy required by the Chancellor shall be related to the extent and gravity of noncompliance. ~~As a general rule, c~~Categorical funds shall only be withheld or reduced where the noncompliance was directly related to the operation of that program, or where other funds are not sufficient to cover the extent of the withholding or reduction. The Chancellor may not utilize funds of the Education Protection Account in the State Treasury to support enforcement activities conducted under this chapter. Any withholding, reduction, or reallocation of funding ~~must be approved by~~ shall require approval of the Board of Governors.

(d) The Chancellor shall report to the Board of Governors on any actions taken pursuant to subdivision (b) of this section, ~~and their outcomes, provided that, in the event he or she determines to reduce or withhold all or a portion of a district's state aid, the Chancellor shall inform and obtain the approval of the Board prior to the reduction or withholding.~~ The costs of any action taken under subdivision (b) shall be borne by the district.

Note: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.

SECTIONS 59700, 59701, 59702, 59703 AND 59704 ARE ADDED TO NEW SUBCHAPTER 11 OF CHAPTER 10 OF DIVISION 6 OF TITLE 5 OF THE CALIFORNIA CODE OF REGULATIONS TO READ:

Subchapter 11. Campus Climate and Public Safety Section 59700. Statement of Purpose.

This subchapter is promulgated to establish standards for community college district governing boards to ensure the application of community and evidence-based policing models, and effective faculty, staff, and student participation in the governance of public safety services, including campus policing and security. Public safety services must adhere to principles of diversity, equity, and inclusion and in particular advance access to education, educational equity, and opportunities for student success by creating safe, secure, peaceful, and inclusive campus environments in which all persons may fully develop their individual potential without fear or undue risk of physical or emotional harm.

The standards established by this subchapter shall apply to all public safety services and public safety personnel, whether provided by district employees, or by contract with private third parties or other public agencies.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: California Constitution, article I, section 28; Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 72330; 72330.2; 72330.5; and 70901, subdivision (b)(1)(E).

Section 59701. Definitions.

The following definitions shall apply to this subchapter.

- (a) "Campus" means locations on or near the campus of the community college and on or near other grounds or properties owned, operated, controlled, or administered by a community college district or by the state acting on behalf of a community college.
- (b) "Campus police officer" means a sworn peace officer employed by a campus police department, or by a local law enforcement agency, to provide public safety services on a community college campus.
- (c) "Campus security officer" means a person employed to provide security services as defined by Education Code section 72330.5, subdivision (c), on a community college campus.
- (d) "Campus police department" means a police department operated by a community college district pursuant to Education Code section 72330.
- (e) "Campus stakeholders" means students, faculty, classified staff, and administrators.
- (f) "Commission" means the Peace Officer Standards and Training Commission.
- (g) "Community policing" refers to a policing philosophy that involves three principal elements:
 - (1) collaborative partnerships between police and those they serve to develop solutions to problems and increase trust in police;
 - (2) organizational transformation to align management, structure, personnel, and data systems to support partnerships and proactive problem solving; and
 - (3) proactive engagement and systematic examination of problems to develop and evaluate effective responses.

(h) “Evidence-based policing” means an approach to the development of effective policing practices that involves ongoing evaluation of police agencies, units, and officers to connect the best available research to the implementation of public safety guidelines and practices to improve outcomes and to allow public safety agencies to move beyond reactive, response-driven approaches.

(i) “Sustained finding” means a final determination by an investigating agency, commission, board, hearing officer, or arbitrator following an investigation and opportunity for an administrative appeal pursuant to Government Code sections 3304 and 3304.5, or equivalent processes, that the actions of a peace officer were found to violate law or department policy.

(j) “Local law enforcement agency” means the city or county law enforcement agency with operational responsibility for police services in the community in which a campus is located.

(k) “Public safety personnel” means campus police and security officers, and other first responders, including mental health and social services workers, crisis counsellors, dispatchers, and others employed to provide related services on a community college district campus, including related support staff.

(l) “Public safety services” means law enforcement, security, emergency response, mental health, social services, crisis counselling, and other related services.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 70901, subdivision (b)(1)(E); and 72330; and Penal Code section 832.8.

Section 59702. Campus Policing and Student Success.

District governing board policies related to campus public safety services must be aligned to the purposes of this subchapter. These policies shall include the elements described below.

(a) A requirement that campus police and security officers adhere to community policing principles and evidence-based policing practices.

(b) A “Public Safety Compact” developed with community college stakeholders, including campus police and security officers, that establishes the district’s requirements for the delivery of public-safety related services on campus, including the respective roles and responsibilities of administrators, faculty, campus police and security officers, mental health and social services workers, crisis counselors, community non-profits, and other related service providers in responding to the public safety needs of the campus.

(c) A public safety advisory committee to make recommendations to the district governing board related to district policies governing campus public safety services.

(1) Advisory committee recommendations may relate to the following subject matter areas: budgets and fund allocations, governance, and public safety policies and practices related to classroom response practices, complaints, investigations, crisis response, detention, discipline, firearms, handcuffing, promotion, recruitment and hiring, restorative justice programs, retention, training, uniforms and attire, use of force, welfare checks, and other related subjects deemed appropriate by the governing board or the advisory committee.

(2) District policies must ensure the disclosure of information and documents relevant to the development of recommendations by district advisory committees. Advisory committee recommendations shall be provided to the district chief executive officer, and be reported to district governing boards at regularly-noticed meetings.

(3) Advisory committees shall be composed of campus stakeholder representatives, and districts shall engage in active efforts to recruit advisory committee members from historically underserved groups.

(d) A requirement that public safety personnel offer contact information to individuals who are stopped or otherwise subject to a police or security officer-initiated interaction, except where doing so would pose a safety risk; and

(e) To further the development of evidence-based practices, a process to encourage individuals who have interacted with campus public safety personnel to submit to the district a response related to the interaction. The process shall:

- (1) solicit responses regarding the individual's perception of the interaction and district's public safety practices;
- (2) provide to the advisory board described in subdivision (c), an aggregated summary or otherwise anonymized version of the responses received;
- (3) allow for the anonymous submission of responses;
- (4) prohibit any retaliation against a responder, including a prohibition against the use of a response in any disciplinary proceeding against the responder; and
- (5) provide an accessible method for all individuals to provide responses.

The process described in this subdivision (e) shall be separate from any disciplinary or personnel proceeding. It shall not be used in connection with any disciplinary proceeding against campus public safety personnel, including a peace officer disciplinary proceeding under

Penal Code 832.5. Information, data, and records developed under this process shall not be maintained in any personnel file.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: California Constitution, article I, section 28; Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 72330; 72330.2; 72330.5; and 70901, subdivision (b)(1)(E); Penal Code, sections 832.5 and 832.7.

Section 59703. Campus Police, Community Policing, and Evidence-Based Practices.

(a) Campus police departments, and any local law enforcement agency that contracts with a community college district, must participate in commission programs. Campus police officers must be certified by the commission.

(b) To support the development of community policing practices, district governing boards shall:

(1) require campus police and security officers to participate in regular training related to the conduct and methods of community policing, anti-bias, cultural responsibility, conflict avoidance, and de-escalation;

(2) provide campus police and security officers routine mental health services, and prompt referral to crisis counseling following any critical incident;

(3) require in the hiring, retention, and promotion of campus police and security officers a demonstrated commitment to policing with a “guardian” rather than a “warrior” mindset;

(4) prohibit district auxiliary organizations from purchasing military equipment, unless authorized by the district governing board following standards required by law for the purchase of equipment for police agencies made with public funds; and

(5) require campus police and security officers to attend and participate in campus activities not involving a “police response” or other formal public safety-related activities, such as participating in student events when invited, in town halls, convocations, and other similar events where informal or social interactions with other campus stakeholders is possible.

(c) To support the development of evidence-based practices, campus public safety services shall:

- (1) record policing data metrics, including key performance indicators;
- (2) track data related to traffic stops and other officer-initiated contacts;
- (3) conduct stakeholder climate surveys focused on campus public safety services; and
- (4) equip campus police with body cameras, which shall be recording throughout any policing response or interaction.

(d)The scope of the data and metrics required by subdivision (c), and the timing and manner of their reporting, shall be determined in guidance published by the Chancellor.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 72330; 72330.2; 72330.5; and 70901, subdivision (b)(1)(E); Penal Code, section 1031.

Section 59704. Employment of Campus Public Safety Personnel.

(a)The employment of campus public safety personnel will be subject to the equal employment opportunity regulations of subchapter 1 (commencing with section 53000), of chapter 4, and the employee tenure and evaluation provisions of subchapter 6 (commencing with section 53600), of chapter 4.

(b)District recruiting materials must prominently indicate that applicants for a campus public safety personnel position will be required to demonstrate a commitment to diversity, equity, and inclusion principles. The evaluation of public safety personnel during their term of employment shall include consideration of the employee's commitment to these principles and to their contributions to student success.

(c)Applicants who obtain a degree in modern policing from a California community college shall receive a hiring preference over other similarly-qualified applicants for a position as a campus police officer.

(d)Campus police and security officers shall receive community college-specific training as required by the Chancellor.

(e)Districts shall not hire as a campus police officer an individual with any final determination related to moral turpitude, harassment, discrimination, retaliation, abuse of authority or power, excessive use of force, or other misconduct incompatible with the role of a campus police officer under the requirements of, and district policies described in, this subchapter. Districts shall review records related to the current or prior employment of campus police and security officers to the full extent authorized by law.

Note: Authority cited: Education Code, section 70901, subdivision (c). Reference: Education Code, sections 66010.2, subdivision (c); 66093, subdivision (a); 66700; 67381; 67381.1; 72330; 72330.2; 72330.5; and 70901, subdivision (b)(1)(E); Penal Code, section 13511.1.

LRPD Reforms					
Task	Description	Type	ECD	Actions	Status
District/College Level Collaboration					
1	Assign mental health/social workers to LRPD or create system with current resources	Action Item	31-Dec-21	Contract signed with Sac County Mental Health	Completed
2	Establish Community Advisory Group	Action Item	1-Oct-22	Identify District and College representatives	Delayed by pandemic until Fall 2022
3	Establish Student Safety Committee	Action Item	1-Oct-22	Identify advisory group members	Delayed by pandemic until Fall 2022
4	Develop/distribute online surveys	Action Item	1-Oct-22	Betty Glycer-Cover has identified existing Sac PD survey for use	Delayed by pandemic until Fall 2022
5	Increase focus on Crisis Intervention Teams	Action Item	1-Oct-22	Re-engage AVC to discuss with College VPSSs	Delayed by pandemic until Fall 2022
6	Discontinue LRPD response to classroom management/Student Services conflicts	Action Item	1-Oct-21	Required further discussions with LRCFT and District leadership	Completed
Policy Changes/Action Items					
7	Shift officer focus away from minor crime	Policy change Action Item	1-May-21	Captains/Sgts are identified applicable minor crimes	Completed
8	Create profiling tracking mechanism for traffic stops and officer-initiated contacts	Policy change Action Item	1-Oct-21	AB-953	Completed
9	Identify local agencies with Crisis Intervention Teams and develop MOUs	Action Item	1-Apr-21	Contract signed with Sac County	Completed
10	Report civilian complaints to Community Advisory Group	Action Item	1-Oct-22	Currently no complaints received	Delayed by pandemic until Fall 2022
11	Officer providing business card mandate	Policy change Action Item	1-Oct-20	All officer business cards were reprinted	Completed
12	Update deadly force standard	Policy change Action Item	1-May-21	Policy Changed	Completed
13	Update unreasonable use of force guidelines	Policy change	1-May-21	Policy Changed	Completed
14	Create Dept Use of Force tracking log	Action Item	1-Apr-21	Purchased Guardian Tracking software	Completed

15	Increase LRPD involvement with student, faculty, classified employee organizations	Action Item	1-Oct-22	Staffing challenges are impacting this	Delayed by pandemic until Fall 2022
16	Establish/publicize representative goals	Action Item	1-May-21	Contacted Peter Khang	Not permitted
17	Install vehicle dashcams	Action Item	1-Oct-22	Installed in 6 vehicles	Completed
18	Defining consequences for failing to activate BWC	Policy change	1-Oct-20	General orders/policy updated	Completed
19	Mandating supervisory review of BWC for duty performance and policy compliance	Policy change Action Item	1-Oct-20	General orders/policy updated	Completed
20	Change uniform	Action Item	1-Oct-22	Labor negotiations are complete	Delayed due to staffing shortages
21	Review standard for detention handcuffing	Policy change	1-Oct-20	General orders/policy updated	Completed
22	Review/update all MOUs	Action Item	1-Aug-21	Draft MOU forwarded to Board	Pending
23	Collaborate with diverse faculty/staff to develop enhanced pre-employment interview questions	Action Item	1-Apr-21	Completed	Completed

Training					
24	Conduct monthly training	Action Item	On-going	Jan 2020 - Implicit Bias Jul 2020 - De-escalation and Crisis Management Aug 2020 - History of Policing Sep 2020 - LGBTQ+ Communities Oct 2020 - LatinX Communities Dec 2020 - Autism	Feb 2021 - Deaf and Hearing Impaired Mar 2021 - Suicide Prevention April 2021 835P PC Update May 2021 - Tactical Communications July 2021 - POST Domestic Violence Sept 2021 - Evidence/Clery Nov 2021 - Active shooter/patrol entry
25	Collaborate additional social justice workshops for officers	Action Item	On-going	Contact made with SCC, FLC, and CRC academic staff for support	Will continue to attend when workshops become more readily available and staffing permits
26	Require all officers attend/complete SCC ADMJ 302	Action Item	1-Jun-21	Completed	Completed

Additional Possible Reforms					
27	Discontinue off-campus welfare checks	Action Item	1-Oct-20	Internal guidance provided and procedures changed	Completed

Los Rios Police Department Staffing

Position	Authorized	Assigned	Vacancies
Captain	4	3	0
Sergeant 4	4	4	0
Police officer	20	*7	13
Detective	1	1	0
Dispatch	8	**5	3
Dispatch supervisor	1	0	1
CSO	6	3	0
Administrative Assistant	1	1	0

* One is self-demoting to CSO for health reasons and two additional officers have applied out with one in final background.

**One dispatcher is moving to a CSO position and two others have applied out

Part-time

- Cadets – 1 (Sacramento Sheriff's Academy/August graduation)
- Clerk III – 4 (one per college)
- Admin Assistant I – 1 (EWC)
- Campus Patrol – 41

LOS RIOS COLLEGES FOUNDATION

Board of Trustees Retreat

March 2022

Philanthropy Update

*“I have two kids and my husband is the only working person, and due to Covid-19 the finances of the family are difficult. I am a new immigrant here, I am pursuing an early childhood education program, I have completed 37 units, I plan to work as an associate teacher, and later I would like to do more units to be able to become a full-time teacher. I highly appreciate this scholarship as it’s helping me to achieve my educational & career aims.
Varuna, American River College Student*

I. Giving Update

- a. Overall YTD Results**
- b. Athletics**
- c. Foundation Grants**

II. Scholarships

- a. Student Emergency Fund**
- b. Scholars Funds**
- c. Process Improvements for More Equitable Awarding**

III. Community Outreach

- a. Direct Mail**
- b. Alumni Newsletter**

IV. Promise to Career Construction Campaign

Los Rios Colleges FOUNDATION



Athletics Fundraising 2018-2022

2018	\$42,696
2019	\$146,771*
2020	\$14,648
2021	\$162,171**
2022	\$38,341

*Donor gift of \$75,000 gift to name the FLC tennis complex and FLC Baseball piloted eTeams platform

** New eTeams fundraising platform launched across the District

ARC 2021-22

Baseball
Football
Men's Cross Country
Men's Soccer
Men's Swim & Dive
Softball
Volleyball
Women's Soccer
Women's Swim & Dive

CRC 2021-22

Baseball
Women's Basketball
Women's Soccer
Women's Volleyball

FLC 2021-22

Baseball
Men's Basketball
Men's Soccer
Softball
Women's Basketball
Women's Soccer

SCC 2021-22

Baseball
Volleyball
Football
Women's Basketball
Women's Soccer

Thank you donors for the selfless donations, which provide students like me an opportunity to keep on moving towards a degree. Thank you for reaffirming to me that there is no success without a team. The team is everyone who helped donate to this wonderful opportunity. May all of your families stay healthy during these trying times. Onward!

Abraham, FLC Student Athlete, Men's Soccer

LOS RIOS COLLEGES FOUNDATION

Grant Summary

Funder	\$ Received	Program	Grant Duration
Bank of America	\$140,000	Basic Needs and SEF	1 year
		SEF (\$25,000)	
		ARC CARES (\$15,000)	
		CRC CARES (\$15,000)	
		FLC CARES (\$15,000)	
		SCC CARES (\$70,000)	
Genentech	\$100,000	SEF (\$70,000) Emergency Hotel Program (\$30,000)	2 years
Kaiser Permanente	\$250,000	Promise to Career Construction	2 years
AT&T Foundation	\$50,000	SCC Makerspace Summer Program	1 year
Sac County TOT Grant	\$40,000	Reemerging Scholars program (scholarships & housing)	1 year
TOTAL	\$580,000		

Bank of America

LRCF received a one-year grant of \$140,000 from Bank of America Foundation to support the Student Emergency Fund (SEF) and the four college Cares Centers. The funds awarded to the Cares Centers can be used flexibly by each college on whatever they need to stock the centers and serve students, including furniture and storage units, pre-packaged food boxes, housing move-in kits, baby care supplies, etc. The SEF portion will provide immediate financial assistance of up to \$1,000 for students in need. This is LRCF's first grant from Bank of America and we were invited to apply for this grant.

Genentech

As part of Genentech Foundation's ongoing response to COVID-19, LRCF was invited to apply for a grant in the amount of \$100,000 to support SEF and the Emergency Hotel program. Los Rios was recommended to Genentech by UC Davis's Avenue B project, which is funded by Genentech and on which Los Rios is a partner.

Kaiser Permanente

Two grants totaling \$250,000 (\$25,000 and \$225,000) to support the Promise to Career Construction fund. This will provide \$1,000 scholarships (\$500 on enrollment and \$500 on completion) and cover some career-focused programmatic costs to students in CRC's construction and building trades

programs that lead to apprenticeships or bachelor's construction management programs, so that students can enter high paying construction jobs.

The Promise to Career construction program builds on recent research commissioned by Kaiser Permanente (KP) into understanding and responding to local workforce and skills gaps for local KP construction projects. Findings revealed that the path to construction jobs for low-income and marginalized communities is confusing and fragmented.

AT&T Foundation

A one-year, \$50,000 grant will encourage participation in STEM, STEAM and Maker fields through participation in fall bridge programs at SCC Maker Space. This is our first grant with AT&T Foundation, which focuses on addressing the digital divide, and we're grateful to LRCF Board Member Alice Perez for the opportunity.

Sacramento County TOT (Transient Occupancy Tax) Grant

We have just been awarded \$40,000 through this competitive grant program (\$25,000 grant and \$15,000 in discretionary dollars from District 2 discretionary dollars). The grant will provide housing assistance, emergency grants and scholarships to Prison and Reentry Education Program students across the district.

STUDENT EMERGENCY FUND UPDATE

TOTAL PRIOR TO THE PANDEMIC (2009-MARCH 2020)

\$278,360 TO 358 STUDENTS

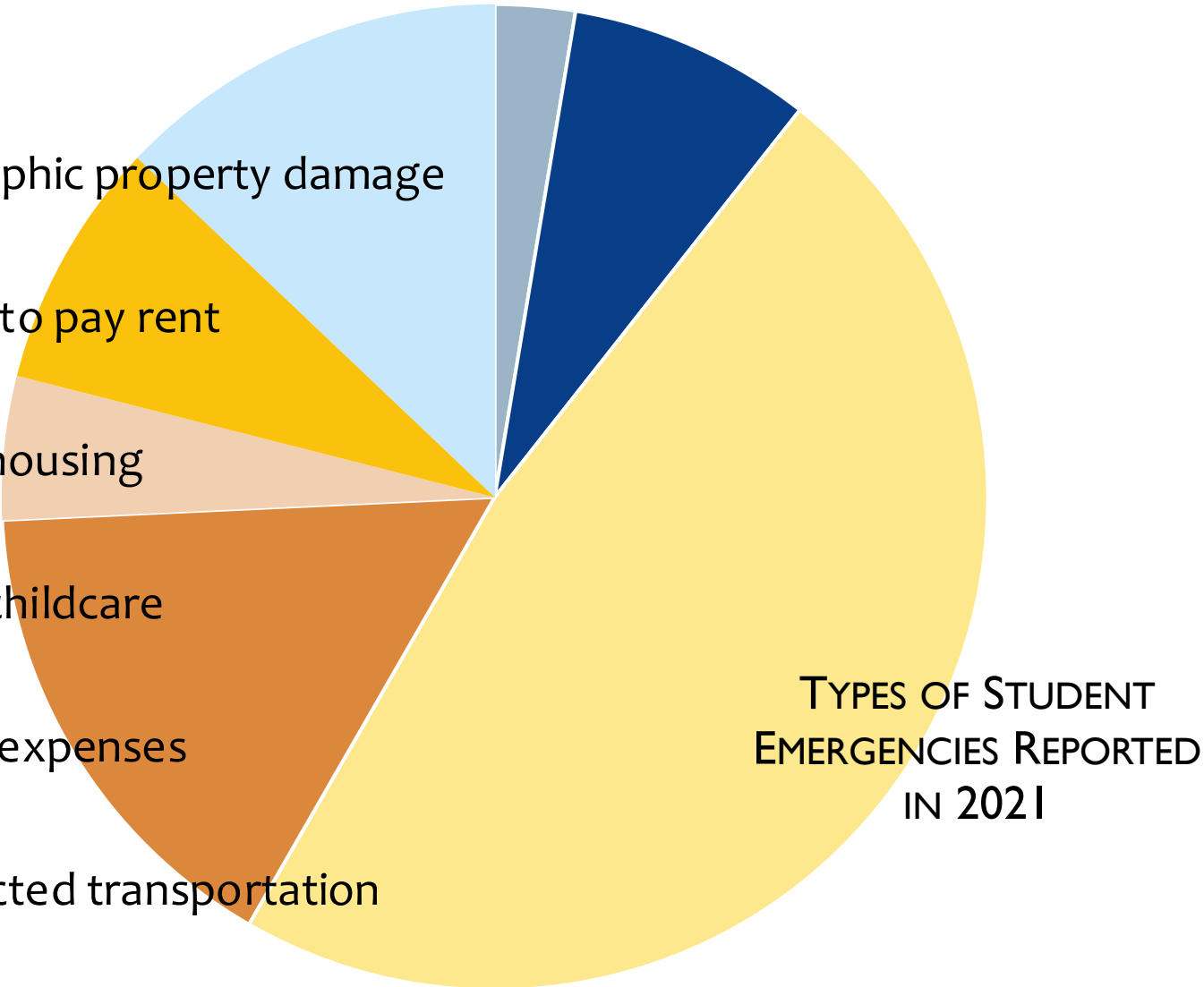
TOTAL DONOR DOLLARS DURING THE PANDEMIC:

\$193,000 TO 220 STUDENTS

**TOTAL STATE & FEDERAL DOLLARS
OCTOBER 2020-TODAY**

\$4,307,500.00 TO 4,778 STUDENTS

- Theft
- Catastrophic property damage
- Inability to pay rent
- Loss of housing
- Loss of childcare
- Medical expenses
- Unexpected transportation expense



TYPES OF STUDENT
EMERGENCIES REPORTED
IN 2021

Thank You From Grateful Students

“Thank you to all who helped grant me this financial help. It was very stressful to find that something like this happened to me despite me planning ahead with my counselor, and now I feel so much relief. I appreciate your consideration so that now I am able to finish my summer classes and apply to Monterey in August!”

“Thank you for taking the time to really understand how badly this scholarship is needed.”

“I lost so many of my memories and everyday items that people take for granted, that even replacing a keepsake from my mom, which yes, it’s not the same as what she had given me, but the meaning and feeling of it, will always be the same. I will continue learning, although as hard as life has been, I just haven’t had the nerve or the thought to ever give up and to stop trying. I will keep pushing, and pushing, and hopefully in a year, you’ll hear my name and see that I have advanced even further away from the negativity that was my past.”

“I can get my utility bills paid off and I should still have enough to just do something that would make me smile.”

“Thank you. I truly don’t have the words to describe how grateful I am, that my cries for help, are finally being heard.”

“My car! I can fix my car!”

“I can now replace personal items and books and a lot of my business clothing that was lost in the fire.”

November 2021

<<ADDRESSEE>>
<<ADDRESS1>>
<<ADDRESS2>>
<<CITY>>, <<STATE>> <<ZIP>>

Dear <<FIRST NAME>>,

The past two years have been among the most challenging most of us can remember, yet some have had to shoulder an even heavier burden than most, like Khephra, a Sacramento City College Student.

Although she loved school, Khephra could not picture college in her future. Khephra's history of turbulent experiences at home, in foster care, and living completely on her own had left her feeling like she had no one to rely on.

She was told time and again by her parents that college was an impossibility. She was couch surfing and working multiple jobs to stay on her feet when she decided to sign up for classes at Sacramento City College, despite the challenges ahead.

Starting college is difficult for any student, and especially for those who have no one to rely on at home, yet she persevered in her dream, only to suffer another devastating loss. "This semester in particular was incredibly difficult financially and emotionally. I lost my dad the week before school started and the expenses related to his death fell on me."

That's where donors like you come in. You make a college education possible for those who have the potential, and just need someone to believe in them.

Thank you for your last gift of \$<<LSTAMT>> on <<DATE>>. Because of your generosity, Khephra says, "I have been able to foresee a bright future for myself and persevere beyond what my parents expected of me."



"Thank you for believing in me and extending kindness to me. That is what this award says to me -- that you believe I will go out and make the world a better place. That's exactly what I'm planning to do!"

Over, please

Yes! I would like to support Los Rios students with a gift of:

\$<<ASK1>> \$<<ASK2>> \$<<ASK3>> Other \$ _____

<<NAME>>
<<ADDRESS1>>
<<ADDRESS2>>
<<CITY>>, <<STATE>> <<ZIP>>

Email Address: _____

Phone Number: _____

You can donate online at
foundation.losrios.edu

Please use my gift where it is most needed at:

- Los Rios Colleges Foundation (supports all colleges)
- American River College
- Cosumnes River College
- Folsom Lake College
- Sacramento City College



In fact, Khephra aspires to become a teacher herself. "Due to my dismal childhood, nothing fulfills me more than making a difference in children's lives," she says.

Now a full-time honors student majoring in early childhood education at Sacramento City College, **she is grateful** to you and the Los Rios community for believing in her.

"Thank you for believing in me and extending kindness to me. That is what this award says to me -- that you believe I will go out and make the world a better place. That's exactly what I'm planning to do!" Khephra says of her donor-funded scholarship. Because of gifts from donors like you, she was able to enroll in next semester's classes and buy the necessary textbooks.

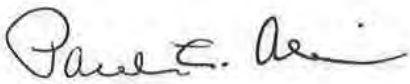
Your support "is not just an award, but a token of support that motivates me to continue pursuing my dreams."

Khephra looks forward to becoming a teacher and plans to be a positive influence on the younger generation, encouraging her students' success and love of learning—just as her teachers did for her.

Please renew your support of students in need by making a gift of \$<<ASK>> to the Los Rios Colleges Fund. Your generosity inspires students like Khephra to imagine a better life for themselves and invites them to pursue opportunities otherwise out of reach.

I hope you share our pride in Khephra, who works a full-time job while excelling as a straight-A student in her Los Rios classes. As she so eloquently wrote in her thank you note, "*Education is the foundation of society. It is how we all improve and progress—more importantly, it's how we improve and progress together!*"

Gratefully,



Paula L. Allison, MBA
President, Los Rios Colleges Foundation

P.S. Please make a year-end gift of \$<<ASK>> today by returning the enclosed envelope or donating online at foundation.losrios.edu. Thank you for championing students like Khephra in their pursuit to make the world a better place.

If I can ever be of assistance, please reach out to me at paula.allison@losrios.edu or 916-568-3075. In the meantime, we will be sure to keep you updated on Foundation news.

Please update my information with the following:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

**Send your check made payable to the
Los Rios Colleges Foundation or
give online by credit card at
foundation.losrios.edu**

My gift is in honor memory of:

Please send gift acknowledgement to:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

We appreciate your gift and will send you a receipt for your tax deduction.

It's the Season of Opportunity at Los Rios!

Alumni@Los Rios Colleges Foundation <alumni@losrios.edu>
Reply-To: "Alumni@Los Rios Colleges Foundation" <alumni@losrios.edu>
To: anneward4 <anneward4@gmail.com>

Mon, Feb 28, 2022 at 10:31 AM

News for Alumni of the Los Rios Community College District

[WINTER 2022](#)[ABOUT US](#) | [CONTACT](#) | [DONATE](#)

It's **Scholarship Season** at Los Rios, and that's kind of a big deal! **Last year, 843 students received 1,361 scholarships totaling over \$735,000!** These vital awards support students who fall in the gap between high and low-income levels, in addition to providing crucial time to focus on their studies. Scholarships provide an opportunity for people to earn an education. Above all else, they are a reminder that students are on the right path and that their community champions them!

LRCCD alumnae Dr. Andrea Willey (ARC) and Navjot Kaur (FLC) explained the impact scholarships had upon their paths to success.



Scholarships met ARC alum [Andrea Willey, MD](#) at every step in her educational journey. After graduating from San Juan High School with a small scholarship used to attain a certificate in Animal Health Care, she served as a veterinary surgical nurse for many years before attending American River College. While at ARC, she was honored with several campus scholarships including Outstanding Biology Student Scholarship Award and Soroptomist International TAP Scholarship Award (twice!) before transferring to UC Davis where she was a Regents and Frank H. Buck Scholar.

Today, Dr. Willey is a uniquely talented Dermatologic Surgeon specializing in Mohs micrographic and reconstructive surgery, minimally invasive aesthetic surgery, and the use of light and energy based technologies for restoring youth and preventing skin cancer. She received her M.D. from UCSF, interned at Yale, and completed residency, and served Chief Resident in Dermatology at the University of Minnesota before completing the esteemed Fellowship in Advanced Dermatologic Surgery at Oregon Health & Science University.

"Focus on what you can give in life, not what you can get."

FLC alum Navjot Kaur received several scholarships during her campus tenure. After Folsom Lake College, she transferred to UC Davis for her bachelors degree in Electrical Engineering. Since she received a full scholarship, her transition to the University was a smooth one. She graduated within two years and started her first full time job at Intel Corporation as a Hardware Engineer. After one year, Kaur switched to Google Cloud as a Hardware Validation Engineer.



"Without these awards, I would not have been able to graduate and get to where I am today. Scholarships gave me hope that I could afford school without working a minimum wage, full time job. I was able to focus on my study rather than worrying about affording college expenses."

"Scholarships gave me hope that I could afford school without working a minimum wage, full time

job."



Handshake for Alumni Career Opportunities!

Handshake is a one-stop-shop for Los Rios students and alumni to explore a myriad of careers, connect with local employers, build their network, get hired, register for events, find volunteer opportunities and internships, and much more! If you are an alum who has recently completed a certificate or degree, you can utilize the platform for an additional two semesters. Great benefits and services are readily accessible at your fingertips! Whether a current student or an alumnus, explore the Handshake platform and see how it can radically change your educational and job search experience.

Learn More About Handshake

Alumni & Campus News

**EVERYDAY
AMAZING**
with Sky Alton

with special guest
Mary Hansen, RN
Folsom Lake College

FLC College Nurse Mary Hansen was recently interviewed by alum [Sky Alton](#) (né Sky Cole) on his local cable tv show, Everyday Amazing. Everyday Amazing features seemingly ordinary people to show that all of us can do or

are doing extraordinary things. "Sky and I met at FLC many years ago and became friends and kept in touch through the years. Recently he had me on his show - and I really feel this was like coming full circle - seeing a student grow, develop his skills, and become a successful adult," Hansen shares. Alton transferred to Sacramento State and is completing his bachelor's degree in Communication Studies.



ARC alumnus [Tamaira “Miss Tee” Sandifer](#) was honored by Forbes magazine as one of their Culture 50 Champions, people who are “models of business excellence in their own various industries who also uplift Black and Brown communities through their crafts and philanthropic efforts.”

Sacramento City College to Receive Portion of \$16.1M Funding for Service Program



Cosumnes River College, American River College, and Sacramento City College Awarded Major

Federal Child Care Grant



ARC's Kaneko Gallery is back on ground and open for business. The first exhibition "Back to the Beginning: Robert Olsen Paintings 1993-2014" is open and ready for viewing. The gallery will be open on TTH from 11-4p.m. and Wednesdays from 11-3:30p.m. and by appointment.

Next month, the **CRC Department of Theatre and Dance** presents an exciting, contemporary play, *In Love and Warcraft*, beginning March 25. When your world is all URL, how do you fall in love IRL? A delightful intersection of humor, love and subculture, *In Love and Warcraft*



offers a fresh comedic look at the collision between online gaming and In Real Life (IRL) relationships.

MASCOT SCHOLARS

At Los Rios, we want to ensure that education is accessible and affordable for all. To meet this goal, we have created ARC Beaver, CRC Hawk, FLC Falcon, and SCC Panther Scholars scholarship.

These scholarships are a campus--focused program created from funds that are pooled together into a general scholarship for deserving students. Want to find out more about how you can make a difference? Click one of the icons below to get started!



BEAVERSSCHOLARS



FALCONSSCHOLARS



HAWKSSCHOLARS



PANTHERSSCHOLARS



TELL US YOUR STORY!



[Privacy Policy](#) | [Unsubscribe](#)
Los Rios Colleges Foundation
1919 Spanos Court, Sacramento, CA 95825



February 2022

Dear Partners,

It is my pleasure to invite you to sponsor the Los Rios Colleges Foundation's upcoming "Sunday Supper with Chef Patrick Mulvaney."

Virtual Cook Along
A Benefit for Los Rios Promise to Career Scholarships
Sunday, April 24, 2022
4:00 – 5:30 pm

Cook along with Chef Patrick Mulvaney, a Sacramento cooking legend and Los Rios Colleges Foundation Board member, and emcee Kellie DeMarco of DeMarco Communications, right from your own kitchen!

100% of your sponsorship will directly support up to 120 students enrolled in Construction, Apprenticeship, Mechanical-Electrical Technology (HVAC), Welding, and more through the Promise to Career: Construction fund.

The Los Rios Promise to Career: Construction program's aim is to address the shortage of affordable housing and the need in our community for more skilled construction workers by preparing students for high quality, high paying jobs in the construction and building industry. The program's flexible scholarship supports the needs of low-income students and it also connects students directly with construction employers looking to meet the demand for new construction and further contribute to economic opportunity in the region.

Enclosed is a list of our sponsorship opportunities for this event. We invite you to add your name and company logo to the list of supporters making a difference for Los Rios students and our region. More information is on our website: foundation.losrios.edu/sundaysupper or you may contact Michele K. Steiner at michele.steiner@losrios.edu or (916) 691-7491.

Thanks so much for your support, and don't forget to come with your most challenging cooking questions for Chef Mulvaney.

We look forward to seeing you on April 24!

Sincerely,

A handwritten signature in blue ink that reads "Paula Allison".

Paula Allison, President



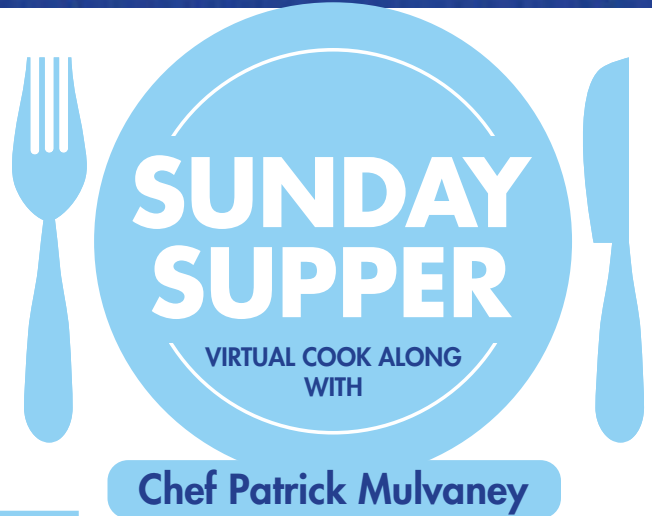
Investing in the students who will build our region

A Benefit for Los Rios Promise to Career Scholarships

Sunday, April 24, 2022

4:00 – 5:30pm

Kellie DeMarco, Emcee



You're invited to cook along with Chef Patrick Mulvaney – a Sacramento legend and Los Rios Colleges Foundation Board member – as he shares one of his favorite farm-to-fork, two-course meals! Patrick and Emcee Kellie DeMarco will walk you through each step to creating a fun, savory "Sunday Supper," right from the comfort of your kitchen, via Zoom!



Chef Patrick Mulvaney



Kellie DeMarco

Tickets are \$100 per household/Zoom link and will go on sale March 7, 2022.

This event is a benefit for the Los Rios Promise to Career: Construction Fund, which provides scholarships to Los Rios students who are in Construction, Pre-Apprenticeship, and Apprenticeship programs. 100% of proceeds will go straight to helping Los Rios students as they prepare to enter the workforce and make a difference in our community!

For more information about this event, including sponsorship opportunities and ticket information, please visit foundation.losrios.edu/sundaysupper.



Investing in the students who will build our region

PROMISE TO CAREER: CONSTRUCTION

WHAT IS THE PROMISE TO CAREER SCHOLARSHIP?

This fund is part of the broader Los Rios Promise to Career effort which provides direct financial support and wrap around services to students who are enrolled in programs such as Construction, Apprenticeship, Mechanical-Electrical Technology (HVAC), Welding, and more. These programs are widely known for their excellent teaching and hands-on training, and for the outstanding students who graduate each year. You can support students directly by making a gift to Promise to Career!

WHAT WILL THE SCHOLARSHIP SUPPORT?

The scholarship aims to remove financial barriers that prevent a student from succeeding in our career education programs. Some students will use the scholarship to pay for the up-front costs associated with starting a program, like boots and safety tools, some will use the funds to pay union dues and fees.

WHY THESE STUDENTS NEED YOUR HELP

Jobs in the construction/building industry are high wage and in high demand. For our low-income students in particular, a certificate or apprenticeship in the building trades is a path out of poverty. Often, associated program costs are simply unaffordable, leading them to delay matriculation or drop out during their programs.

These students also have living and transportation expenses that cost just as much as any other student attending college. Some may even finish their degree, only to find that they cannot afford the tools or fees that will allow them to begin working. Your help will get them over the finish line and into the workforce.

The Need

Promise to Career: Construction was created to improve credential and skills attainment to increase Sacramento's talented construction workforce. This program supports the needs of students seeking high quality jobs and of employers looking to meet the demand for new construction and further contribute to economic opportunity in the region.

A key component of this program includes connecting students directly to employers, boosting their social capital, and further familiarizing them with potential career paths.

With your support, we will respond to challenges with job attainment, the housing shortage, and addressing equity gaps for underrepresented students.

“Thank you for helping me continue to get to and from school. This scholarship will help fund my future and help my generation.”

-Chelsea Johnson; CRC Construction Student, Promise Scholarship Recipient

EXAMPLES OF CAREER PATHS

- Carpenter
- Electrician
- Plumber
- Construction Superintendent
- Construction Apprenticeship
- Building Inspection
- Cement Mason
- General Contracting
- HVAC Technician
- Estimator
- Scheduler
- Welder



Learn more at foundation.losrios.edu

LOS RIOS COLLEGES
FOUNDATION



Investing in the students who will build our region

SPONSORSHIP OPPORTUNITIES

PLATINUM SPONSOR: \$10,000

- Support 20 Los Rios building trades students with \$500 scholarships!
- Listing as platinum sponsor on the invitation, the event website, and the media release. Invitation will be emailed to 65,000 people
- Recognition as a Los Rios Promise Partner on Los Rios Colleges Foundation website and in Promise marketing collateral
- Mention in Los Rios, College-specific, and Mulvaney's social media posts
- Logo added to thank you gifts sent to sponsors and high-level donors
- Prominent recognition at the event; logo/name included in event presentation and name mentioned by emcee
- Ten complimentary tickets to attend virtual cooking event

GOLD SPONSOR: \$5,000

- Support 10 Los Rios building trades students with \$500 scholarships!
- Listing on the invitation, the event website, and the media release. Invitation will be emailed to 65,000 people
- Mention in Los Rios, College-specific, and Mulvaney's social media posts
- Logo/name on event website
- Prominent recognition at the event; logo/name included in event presentation and name mentioned by emcee
- Five complimentary tickets to attend virtual cooking event

SILVER SPONSOR: \$1,000

- Support two Los Rios building trades students with \$500 scholarships!
- Mention in Los Rios and College-specific social media posts
- Logo/name on event website
- Recognition at the event
- Two complimentary tickets to attend virtual cooking event

BRONZE SPONSOR: \$500

- Support one Los Rios building trades student with \$500 scholarships!
- Logo/name on the event website
- One complimentary ticket to attend virtual cooking event

Sponsorship amount is 100% tax-deductible. To ensure placement on event invitation, we ask that Platinum and Gold Sponsors commit by March 25, 2022, but will gladly accept other sponsorships until April 20, 2022. To secure your sponsorship, please visit foundation.losrios.edu/sundaysupper or contact Michele K. Steiner, Regional Director of Philanthropy, (916) 691-7461 or michele.steiner@losrios.edu.

We welcome individuals to sponsor this event! You may choose any or all of the benefits at your sponsorship level that would be most meaningful to you. After you secure your sponsorship, we will work with you to determine which benefits you would like to choose.



Learn more at:
foundation.losrios.edu/sundaysupper

LOS RIOS COLLEGES
FOUNDATION

Los Rios Board of Trustees Future Agenda Items Requested at Open Board Meetings

Updated March 2022

Item/Topic	Requesting Board Member	Date Requested	Responsible for Reporting	Expected (or Delivered) Date of Report	Report Format (Written/Meeting/Retreat)
Overview of Community and High School Outreach Programs	Wilkerson	2/2022	Nye	March 2022	Information Item at Board's Spring Retreat
Update on Distance Learning	Wilkerson	2/2022	Nye	March 2022	Information Item at Board's Spring Retreat
Exploration of a baccalaureate degree program	Haynes	2/2022	Nye	Fall 2022	Written Update
Update on Prison and Reentry Education Program	Wilkerson	12/2021	Nye	April 2022	Board Presentation
Associate Degrees for Transfer (ADT's), including a breakdown of how many are making it into CSU or other four-year colleges and how many are not transferring, as well as what the gender and ethnicity demographics are of those populations.	Haynes	11/2021	Nye	May 2022	Written Update
Update on North Far North Regional Consortium, the Federal funding coming into our regions, and the	Haynes	11/2021	Nye	Summer 2022	Written Update

Los Rios Board of Trustees Future Agenda Items Requested at Open Board Meetings

Updated March 2022

Item/Topic	Requesting Board Member	Date Requested	Responsible for Reporting	Expected (or Delivered) Date of Report	Report Format (Written/Meeting/Retreat)
demographics of our students who are in these programs.					
First-year programs and student engagement at the four colleges.	Nelson	10/2021	Nye	Fall 2022	Board Presentation
A study session on the use of remote and distance learning over the past three terms (at least during the COVID period), and then a review of the future plans that we have for distance and remote education over the next five years. That report would include the projection of courses, sections of courses, number of students served by remote learning, and all that listed by campus.	Jones	10/2021	Chancellor Nye	TBD	Board Study Session/Presentation
Plan for the expenditures of the remaining HERF Funds, with an opportunity for the Board to take formal action to approve the appropriations	Jones	10/2021	Rodriguez	TBD	Board Presentation/Action Item

Los Rios Board of Trustees Future Agenda Items Requested at Open Board Meetings

Updated March 2022

Item/Topic	Requesting Board Member	Date Requested	Responsible for Reporting	Expected (or Delivered) Date of Report	Report Format (Written/Meeting/Retreat)
Follow-up reports on AB705 transfer-level courses and Dual Enrollment	Haynes	8/2021	Nye	Spring 2022	Board Presentation
Number of ADT's awarded, if there are competing ADT's, and how we help students navigate the differences	Haynes	6/2021	Nye	May 2022	Written Update
Process for ensuring General Education Identifier Students who are ultimately getting and staying on a Pathway	Haynes	1/2021	Nye	Spring 2022	Board Presentation
Undocumented Student Services in Los Rios (from allies and staff)	Ortiz	11/2021	Nye	February 2022	Board Presentation
Overview of Dual Enrollment Programs	Wilkerson	7/2021	Nye	December 2021	Study Session
Budget Workshop & Marketing/Outreach Enrollment Strategy	Wilkerson	6/2021	Chancellor Rodriguez Ross	Summer 2021	Board Study Session
Overview of HomeBase and MESA programs at ARC	Ortiz	5/2021	Chancellor Dixon	Spring 2021	Written Update

Los Rios Board of Trustees Future Agenda Items Requested at Open Board Meetings

Updated March 2022

Item/Topic	Requesting Board Member	Date Requested	Responsible for Reporting	Expected (or Delivered) Date of Report	Report Format (Written/Meeting/Retreat)
Changes underway to curriculum related to social justice; LRPD training update	Haynes	5/2021	Nye Rodriguez	Summer 2021	Board Presentation
Timeline and overview of the planning process for Reimagining Financial Aid and Admissions & Records	Wilkerson	5/2021	Chancellor Rodriguez	Summer 2021	Written Updates
Overview of MOU's with outside law enforcement agencies	Johnson	5/2021	Rodriguez	Summer 2021	Board Presentation
LRPD Reform (follow-up from July 2020 Study Session)	Haynes	4/2021	Rodriguez	Summer 2021	Board Presentation
Status of Undocumented Students access to Financial Aid	Ortiz	4/2021	Chancellor Knapp	Spring 2021	Written Update
Ethnic Studies Requirement (update on progress of Committee)	Wilkerson	4/2021	Nye	Fall 2021	Written Update
Enrollment by race/ethnicity as we transition back to on-ground instruction	Haynes	3/2021	Nye	Fall 2021/ Spring 2022	Written Update

Los Rios Board of Trustees Future Agenda Items Requested at Open Board Meetings

Updated March 2022

Item/Topic	Requesting Board Member	Date Requested	Responsible for Reporting	Expected (or Delivered) Date of Report	Report Format (Written/Meeting/Retreat)
Reopening planning to resume face-to-face instruction	Wilkerson	2/2021	Chancellor	Spring 2021	Board Presentation
A summary/breakdown of how the District has spent Federal stimulus funds received over the last year.	Haynes	2/2021	Rodriguez	Summer 2021	Board Presentation
Preliminary Outreach Strategies and Enrollment Management for the Fall term.	Jones	2/2021	Chancellor	Spring 2021	Written Updates/Board Presentation
Calendared updates throughout the entire year, in addition to the Board Retreats, that will keep the Board apprised in a transparent way of the status of its various goals and initiatives such as AB 705, Pathways, the focus on African American and	Haynes	12/2020	Chancellor Nye Rodriguez College Dixon Bush Yamamura Gutierrez	Ongoing throughout 2021	Written Updates Board Retreats

Board Self-Evaluation

Board Retreat Agenda Item 4.E

THIS

INFORMATION

WILL BE DISTRIBUTED

DURING THE BOARD RETREAT

LOS RIOS COMMUNITY COLLEGE DISTRICT

BOARD OF TRUSTEES ANNUAL SPRING RETREAT

SUBJECT: Update and Discussion of District Initiatives	DATE: March 12, 2022
AGENDA ITEM 5	TYPE OF BOARD CONSIDERATION: Board Discussion

BACKGROUND

Staff frequently updates the Board of Trustees on the District's progress toward the completion of various initiatives. Executive Staff will report on each of the items listed below:

- A. Financial Aid and Admissions & Records Improvements
- B. Dual Enrollment
- C. K16 Collaborative Grant, Sacramento Region
- D. Outreach Overview
- E. Strengthening Online Education
- F. Open Educational Resources

STATUS

The Board of Trustees has the opportunity to ask questions and discuss various issues of importance regarding the District's goals and projects for the current year.

Los Rios Community College District

Admissions and Records and Financial Aid Redesign Overview

Project Description

During the last several months, LRCCD contracted with two outside consulting firms to assess our college Financial Aid and Admissions and Records operations: Blue Icon for Financial Aid and the American Association of Collegiate Registrars and Admissions Offices (AACRAO) for Admissions and Records. The focus of this work is to design a new service model that is based in equity that provides quality engagement for all students and, in particular, our disproportionately impacted student populations.

Guiding Principles

During the latter part of the spring 2021 semester, each college held listening sessions with faculty, classified, and managers to discuss the proposed redesign of Admissions and Records and Financial Aid. Feedback and concerns from the listening sessions were compiled and used to help develop guiding principles that will help provide a framework for how the overall process and important considerations that the consultants and planning workgroup have taken into account throughout the process and as recommendations are developed.

- Transparency and communication about the process are critical.
- The outcome of the redesign process should result in a more robust and student-centered model of service delivery for all students, and particularly for our most marginalized students.
- Equity-minded and student-centered service delivery model, for students and staff.
- Changes should be data-informed and based on student needs.
- The redesign should identify metrics and a process for evaluating whether the changes have been successful and help inform future quality improvements.
- Input from impacted stakeholders is important to inform the redesign.
- The redesign should result in efficiencies that address staff workload constraints and improve the student experience.
- The model for redesign should still provide in-person campus-level support for students.
- Recommendations for improvement should address possible technology and process improvements that would result in greater efficiencies, reduce redundancies and unnecessary requirements and steps in a process, and eliminate barriers for students.
- Change can be very difficult – it is important to address the human side of how change impacts individuals and provide support to staff to help them manage changes resulting from the redesign.

Goals

- Implement a service model and structure that will better serve students, staff, and all stakeholders.
- Provide seamless service to students that is both equity-minded and student-centered.
- Maximize efficiencies in processes, technology, and staffing in conducting admissions and records and financial aid-related processes.
- Align and create a more consistent student experience across all four colleges, so that all students receive an exceptional level of service.
- Establish metrics for identifying areas for improvement and assessing effectiveness.
- Implement processes that regularly evaluate and address workload concerns with the goal of maintaining good staff morale and work satisfaction.

For more information about the Redesign process: <https://employees.losrios.edu/our-organization/departments-and-offices/student-services/admissions-and-records-and-financial-aid-redesign-project>



Admissions and Financial Aid Redesign Update

February 2022

Sonia Ortiz Mercado, Interim Associate Vice Chancellor of Educational Services
Yolanda Garcia, Interim Associate Vice President of Student Resources, Financial Aid
Parrish Geary, Interim Associate Vice President of Student Resources, Admissions



Guiding Principles

- Transparency and communication about the process are critical.
- Outcome of redesign process should result in a more robust and student-centered model of service, delivery for all students, and particularly for our most marginalized students.
- Equity-minded and student-centered service delivery model.
- Changes should be data-informed and based on student needs.
- The redesign should identify metrics and a process for evaluating whether the changes have been successful.

Guiding Principles, continued

- Input from impacted stakeholders is important.
- Redesign should result in efficiencies that address staff workload constraints and improve the student experience.
- The model for redesign should still provide in-person campus-level support for students.
- Recommendations for improvement should address possible technology and process improvements that would result in greater efficiencies, reduce redundancies.
- Change can be very difficult – it is important to address the human side of how change impacts individuals.

Current Status

- ❖ Complete:
 - Over 60 interviews/feedback sessions (with classified staff, students, supervisors, & faculty), student survey, staff survey
 - Review of policies, procedures, processes, etc.
- ❖ March 2022: Final reports expected and additional campus updates planned
- ❖ March-April 2022: Share reports with key stakeholders and constituency groups
- ❖ March/April 2022: Review reports and prioritize recommendations
- ❖ April/May: Initial implementation plan developed
- ❖ Fall 2022: Complete first phase of implementation, work on implementing other priorities

Consultants

American Association of Collegiate Registrars and Admissions Office (AACRAO):

- Attention to Social Justice, equity, access, ethics, legal, and professional dynamics as associated with college and universities.
- Comprehensive approach to Education Systems to align multiple components of data, policy, business practice, development of technology that lead to sustainable outcomes.

Blue Icon Advisors, NASFAA Consulting:

Core Principles include:

- Promote fairness and equity for students, support policies that address the needs of disadvantaged students
- Recommend policies that accommodate the diversity of academic delivery models, validate proposed recommendations with research and data analysis wherever possible

Strengths and Areas of Improvement Noted by Financial Aid Consultants So Far...

Strengths

- Knowledgeable and trained campus staff
- Support from Executive Management
- Culture of care for students
- Consistent policy and procedure manuals
- Program reconciliation

Weaknesses

- Computing system not fully utilized
- Inconsistent campus operations
- Limited communication with students
- Limited online information for students
- No metrics on customer service/satisfaction

Opportunities and Challenges Noted by Financial Aid Consultants So Far...

Opportunities

- Take advantage of talent
- Share resources across campuses
- Increase online info for students
- Cross train
- Expand Call Center
- Create online forms and efficient workflows

Challenges

- Regulatory changes
- Loss of talent-no succession plan
- Reliance on queries and UEMs
- Reduction in Federal and State funding
- Ineffective and inefficient processes

What to Expect in Financial Aid Final Report

(initial impressions)

Compliance Evaluation:

- Consumer Information
- Return to Title IV
- Federal Direct Loans
- Federal Work Study
- Satisfactory Academic Progress
- Standards of Participation
- Case Management

Areas of Focus:

- Communication
- Customer service
- Awarding financial aid and file review
- Processing
- Training
- Technology

Strengths and Areas of Improvement Noted by A&R Consultants So Far...

Strengths

- Knowledgeable and trained campus staff
- Online forms have improved access and processing timelines
- Relationships across campus are great
- Equity-minded and student focused
- Strong leadership support

Weaknesses

- Too many manual processes
- Lack of assessment of services & no metrics
- Inconsistent student experience across the campuses
- Lack of campus to campus communication, coordination and training

Opportunities and Challenges

Noted by A&R Consultants So Far...

Opportunities

- Modernization of effective use of technology
- Establish a culture of assessment for improvement and data driven decision making
- Build efficiencies in policies and processes
- Cross training/share knowledge
- Provide professional development opportunities

Challenges

- Lack of role clarification between Outreach and Admissions & Records staff
- Heavy reliance on relationships to solve technical issues
- Lack of clear road map for students from prospect to applicant to registrant and beyond

What to expect in A&R Final Report *(initial impressions)*

Topics of Interest

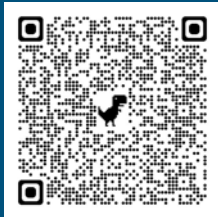
- Technology Improvements
- Best Practices to Improve Processes
- Student Service Assessment
- Student Prospect, Application through Onboarding & Engagement
- Emphasis on Professional Development/ Training
- Alignment of Admissions processes across the District to improve the student experience

Project Information

Admissions & Records and Financial Aid Redesign Project website:

Goals, Guiding Principles, Timeline, Teams, and Recordings

<https://tinyurl.com/576bak9a>



Redesign Feedback Form:

<https://tinyurl.com/bamcwvpe>

Contact Information:

Parish Geary,
gearyp@arc.losrios.edu

Yolanda Garcia,
yolanda.garcia@arc.losrios.edu

Sonia Ortiz-Mercado,
Ortiz-S@arc.losrios.edu

Questions?

Dual Enrollment Resources

Curated by the Career Ladders Project
Updated 2.10.22

Overview of Dual Enrollment

- [Overview of Dual Enrollment and Three Case Studies](#), (California Specific), Career Ladders Project
- [Benefits of College in High School Programs](#), (National), College in High School Alliance

Research Overview

- [College in High School Programs - What the Research Says](#), (National), College in High School Alliance
- [Evidence Supports Dual Enrollment as a Strategy for Equity](#), (National and California) Career Ladders Project
- [Dual Enrollment Programs, Evidence Snapshot](#), (National) What Works Clearinghouse

Compelling California Specific Research

- UC Davis Wheelhouse
 - [A Foot in the Door](#): Growth in Participation and Equity in Dual Enrollment in California
 - [A Rising Tide](#) infographic
 - [A Leg up on College](#): The Scale and Distribution of Community College Participation Among California High School Students
- PPIC
 - [Dual Enrollment in California: Promoting Equitable Student Access and Success](#)
- ETW
 - [Jumpstart: Setting Goals to Drive Equitable Participation in California's Community Colleges](#)
- CLP
 - [The Dual Enrollment Landscape in California: A CLP Working Paper](#)
 - [Unlocking Potential – joint brief by CLP and JFF](#)
 - [Dual Enrollment and Guided Pathways Converge for Equity: A Case Study. Bakersfield College](#)

Blogs and Op-Eds

- [Dual enrollment is a foot in the door to college \(1/6/22\)](#), Michal Kurlaender and Olga Rodriguez, EdSource
- [New Research: Dual Enrollment Supports Equitable College Completion \(12/15/21\)](#), College Futures Foundation
- [Geography of Dual Enrollment Programs in California \(11/22/21\)](#), PPIC
- [Dual Enrollment Can Expand Educational Opportunity \(11/2/21\)](#), PPIC
- [Dual Admission Could Help More Students Transfer from Community College to State Universities \(2/19/21\)](#), PPIC

Videos

- [Student Voices: Dual Enrollment](#)
- [CLP Dual Enrollment Playlist](#)
- [Problem Solving: Moving Dual Enrollment Online Playlist](#)

Tools for Practitioners

- [Dual Enrollment: Moving to an Electronic Form](#), CLP
- [Creating a Dual Enrollment Partnership](#), CLP
- [Supporting English Language Learners in Dual Enrollment](#), CLP
- [Designing Professional Development for Dual Enrollment Instructors](#), CLP
- [Working with Adolescents: Strategies for Instructors](#), CLP
- [Federal Privacy Law and Dual Enrollment](#), CLP
- [The Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students](#), CCRC and the Aspen Institute



Pathways to Success

through Dual Credit, Early College
High Schools & P-TECHS

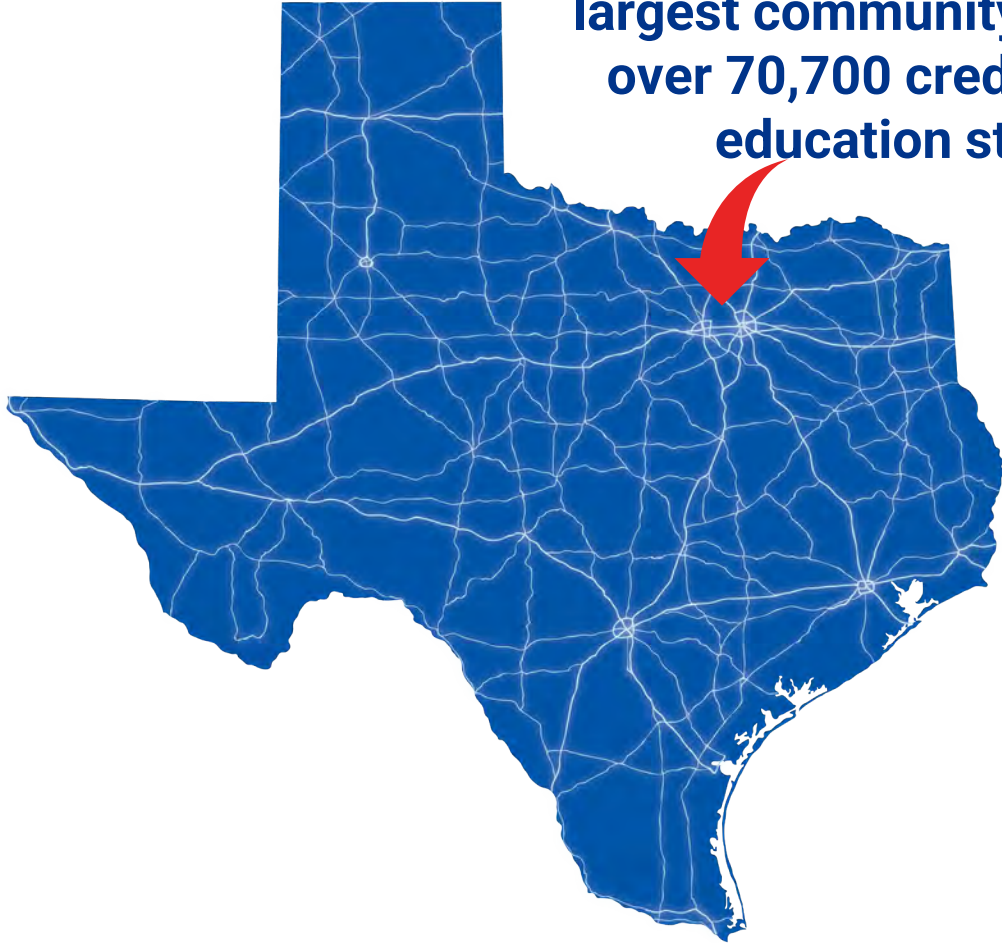
10/15/21

Diana Flores, Dallas College Board Trustee
Edwin Flores, Dallas ISD Board Trustee
Shawnda Floyd, Dallas College Provost
Anna Mays, Dallas College Vice Provost, Ed. Partnerships



WHO WE ARE

Dallas College is one of the largest community colleges in Texas with over 70,700 credit + 15,000 continuing education students Fall 2021.



And one of the most affordable at just

\$79

per credit hour
(including textbooks)



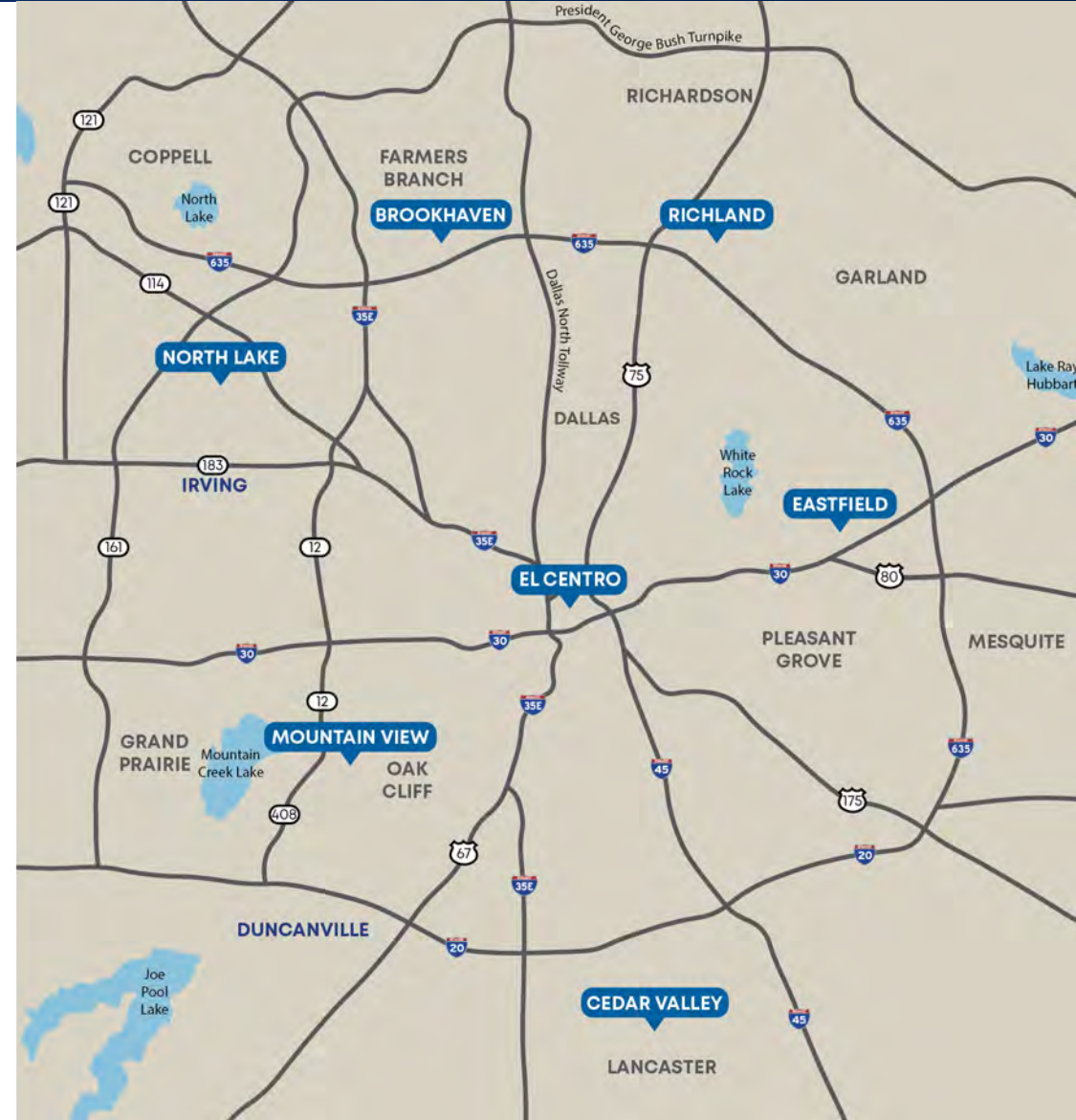
EDUCATION THAT WORKS FOR ALL



Since 1965, we have helped almost

3 million

people on their educational journey
through our 7 campuses



DALLAS COLLEGE MISSION AND STRATEGIC PRIORITIES

Mission: Transform lives and communities through higher education

Purposes:

- Ensure Dallas County is vibrant, growing and economically viable for current and future generations.
- Provide a teaching and learning environment that exceeds learner expectations and meets the need of our community and employers.

Strategic Priorities:

- Impact income disparity throughout our community
- Streamline and support navigation to and through our college and beyond CCL:
- Strengthen the career connected learner network and implement the student-centric one college organization
- Foster an equitable, diverse and inclusive environment for employees and students
- Re-design professional development to create a diverse and inclusive high performing work and learning environment
- Serve as the primary provider in the talent supply chain throughout the region

STATE AND LOCAL REALITIES

Texas Strategic Plan for Higher Education

- Focus on earning credentials
- Growing issues surrounding student debt

Emphasis on Workforce

- For the state and for students

Technical Credit as Key

- Engaging / High Impact
- Strong credentials



Dallas has significant workforce challenges that could limit further growth

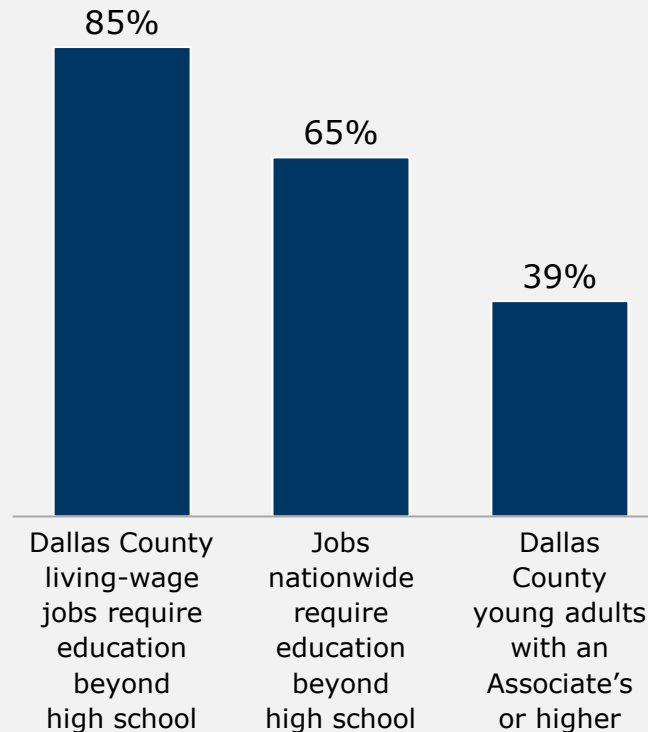


Employers find it difficult to fill talent needs



Employers reported feeling that there was enough skilled and qualified local talent to meet business needs

Many students don't have a clear path to a living wage career



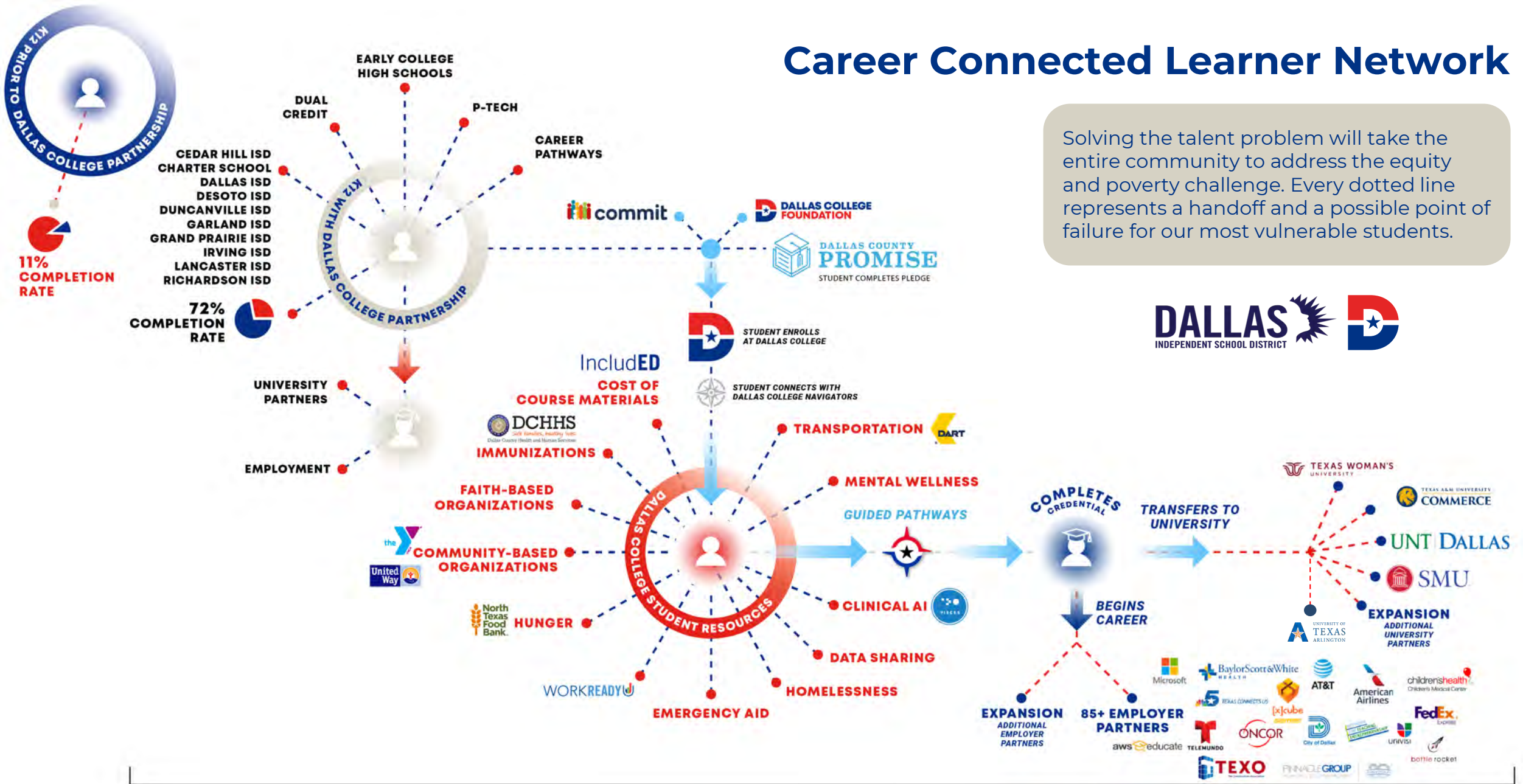
Only 1 in 4 young adults earns a living wage



Only 1 in 4 young adults earn a living wage of \$50,000/year

Career Connected Learner Network

Solving the talent problem will take the entire community to address the equity and poverty challenge. Every dotted line represents a handoff and a possible point of failure for our most vulnerable students.



P-TECH/ECHS 2020 JOURNEY

Dallas ISD launched P-TECH at scale in 2016 to increase the number of students earning post-secondary degrees and credentials.



7%

The graduating class of 2009 earned an Associate Degree after six years



**7%
(628)**

Students in Dallas ISD graduated from high school with both a high school diploma & Associate Degree
IN 4 YEARS



**10%
(900)**

Dallas ISD graduating class of 2021 earned a high school diploma & Associate Degree
IN 4 YEARS

HOW DO WE ACHIEVE SUCCESS?

Strategic focus on improving college completion for those who never even thought it was possible

Industry engagement:

- Expanded company footprint in the community
- Engagement with education and students
- Increased employee engagement and volunteerism
- Ability to shape and inform curriculum
- Access to qualified interns
- Access to highly-skilled, diverse talent pipeline domiciled in the DFW metroplex



Expansive student support:

- Professional mentors
- Personalized case management
- 21st century career skills
- Industry-recognized certifications
- Digital badges
- Internships, apprenticeships, and more...
- Support of professional industry partner network
- Access to high-demand, high wage jobs and career paths
- A roadmap to the future!

DALLAS INDEPENDENT SCHOOL DISTRICT

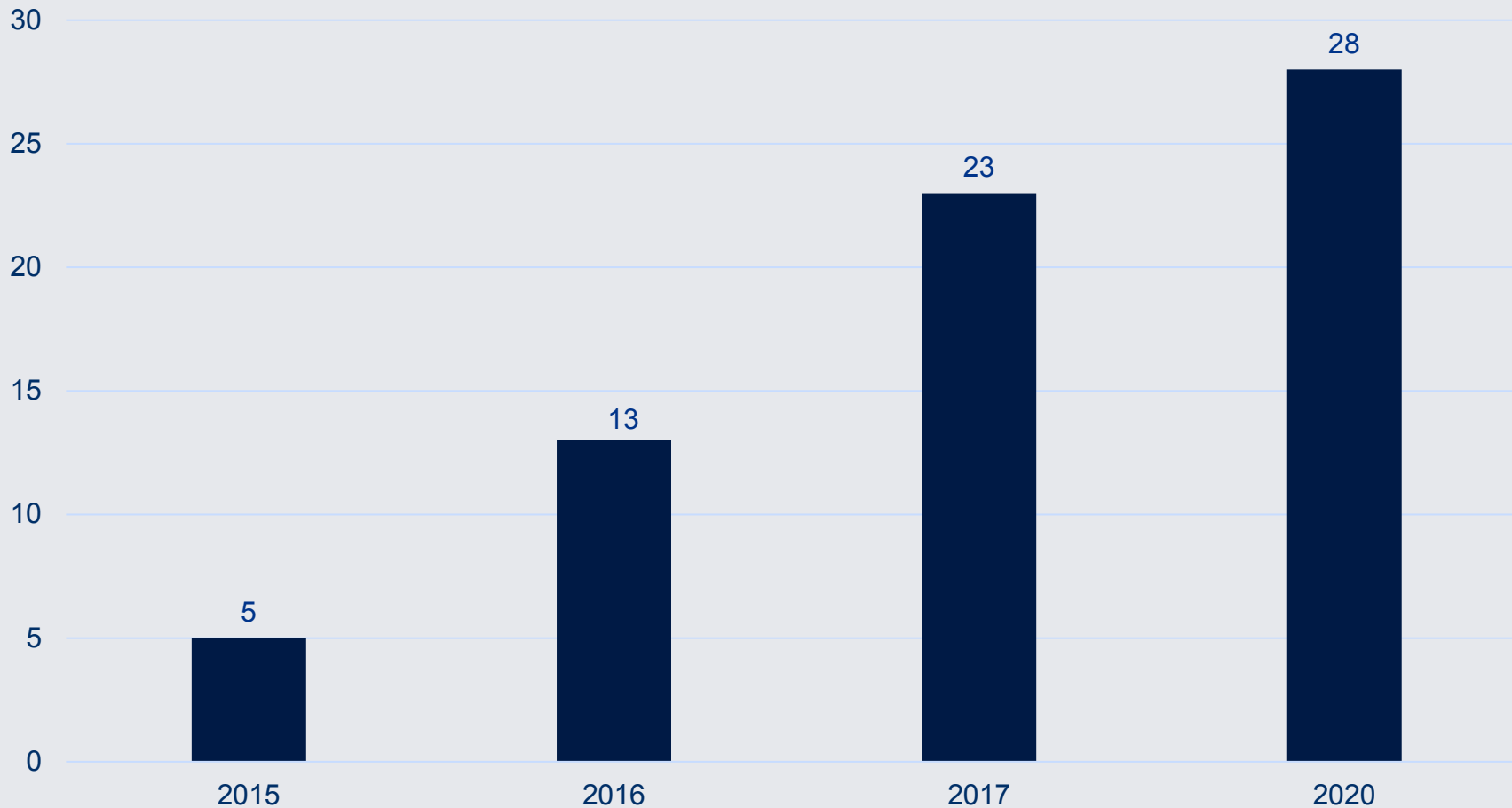
Student Facts:

- ✓ 145,113 enrolled 2020-21
- ✓ 41,114 high school students
- ✓ 71% Hispanic/Latino
- ✓ 21% African-American
- ✓ Over 90% economically disadvantaged
- ✓ 45% English Language Learners



DALLAS ISD & DALLAS COLLEGE EARLY COLLEGE HIGH SCHOOLS & P-TECH'S

ECCHS and P-TECH Growth



28 College & Career Readiness School Models

- 10 ECCHS
- 18 P-TECH
- 8,175 STUDENTS



DALLAS ISD P-TECH

Outputs:

- ✓ High School Diploma
- ✓ Graduation Endorsements
- ✓ Up to 60+ College Credit Hours at No Cost to Students & Parents
- ✓ Associate of Applied Sciences Degree
- ✓ Career and Technology Certifications
- ✓ 4 Year University Options
- ✓ Career Opportunities
- ✓ Mentoring
- ✓ Worksite Visits
- ✓ Internships
- ✓ First in line for Job Interviews/Jobs



P-TECH/ECCHS 2021 Graduates



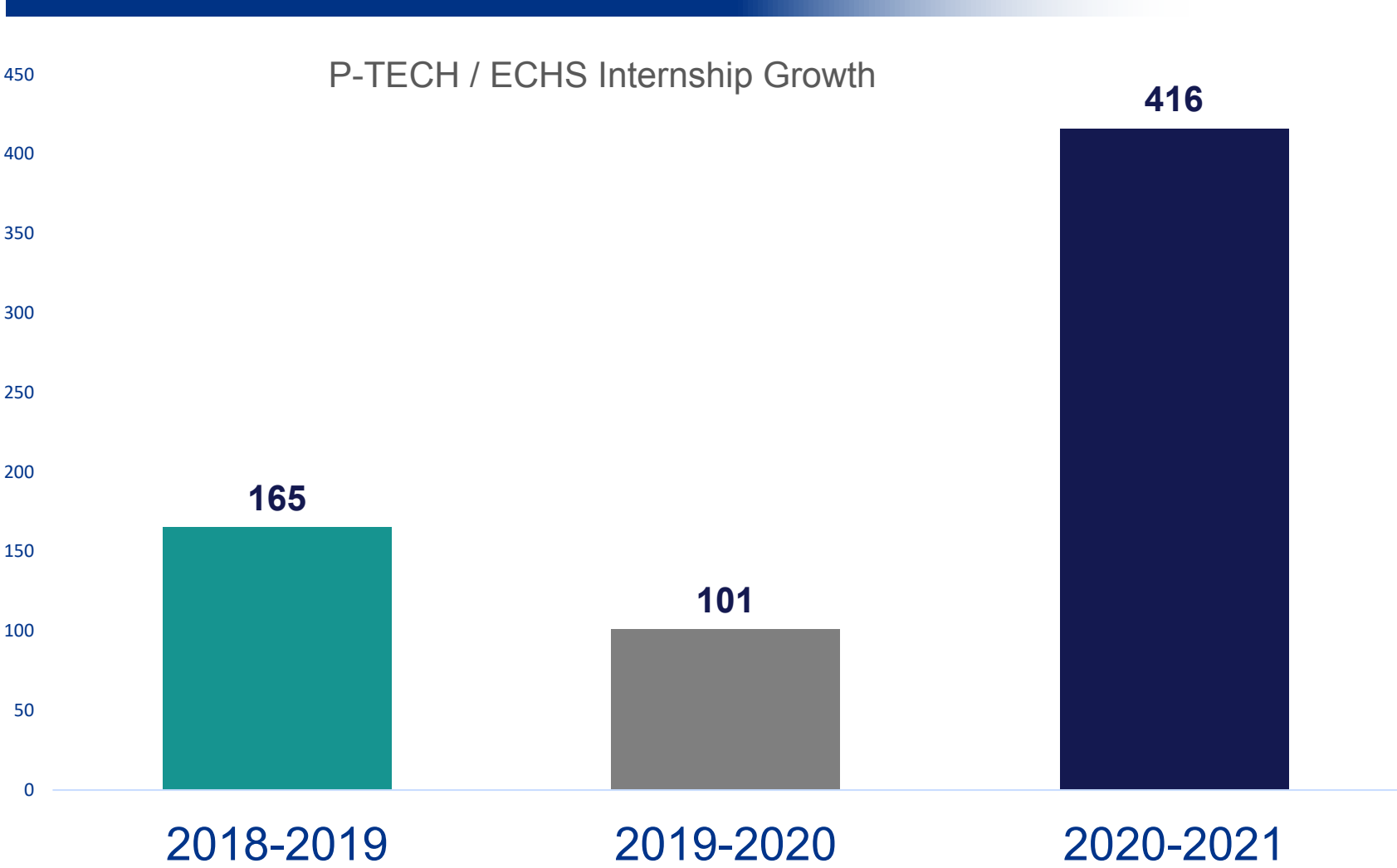
10%

Of the Class of 2021 Graduates earned both a high school diploma and an Associate Degree in 4 years (900 students)





INTERNSHIPS 2020-2021 (AS OF 8/27/2021)



682
Total Completed Student Internships
2018 -2021

416
Total Completed Student Internships
through Summer 2021
(Dallas Works final program data not yet reported)

INTERNSHIPS BY PARTNER 2020–2021 (AS OF 8/27/2021)



7 Interns

Total Interns at American Airlines Summer 2021



INTERNSHIPS BY PARTNER 2020–2021 (AS OF 8/27/2021)



Seagoville P-TECH
Partner Since 2015

21 Interns

Total Interns at Accenture Summer 2021



INTERNSHIPS BY PARTNER 2020–2021 (AS OF 8/27/2021)



PEPSICO



South Oak Cliff P-TECH
Partner Since November 2017

32 Interns

Total Interns at Pepsi Co/Frito-Lay Summer 2021



INTERNSHIPS BY PARTNER 2020–2021 (AS OF 8/27/2021)

\$1,673,460

Collective Total of **Estimated** Student Earnings during Summer 2021

INCREASE IN LIVING WAGES FOR GRADUATES

**From Minimum Wage Jobs
to Salaried Positions at \$50,000/year!**

CAREER INSTITUTES OFFERS 20 PROGRAMS OF STUDY



- Construction Managers
- Surveyors
- Cartographers and Photogrammetrists
- Architecture/Interior Design

04
Post Secondary Programs

Occupations	Median Wage
Carpenters	\$35,922
HVAC Mechanics	\$41,808
Electricians	\$44,013
Plumbers	\$44,928
Architects	\$77,043
Construction Managers	\$87,402



- OSHA 10 / OSHA 30
- Electrical Apprenticeship License
- Classroom Related Instruction (CRI) hours that count towards 4-Year DOL apprenticeship programs
- AAFCS Interior Design Fundamentals
- Autodesk Certified User in AutoCAD
- Autodesk Revit (ACP)

02
Certifications



HS Graduation

03
Possible Careers

- Construction
- Carpenters
- Electricians
- Plumbers
- HVAC Installers
- First-Line Supervisors of Construction Trades and Extraction Workers

01
Programs of Study

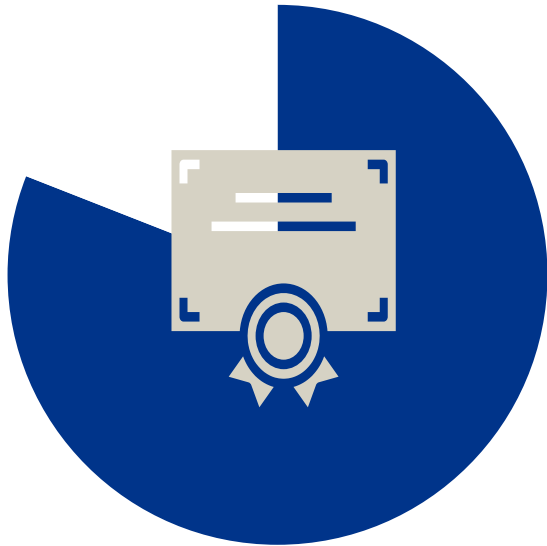
- Construction/Carpentry
- Electrical and Solar
- HVAC and Refrigeration
- Plumbing
- Architecture/Interior Design

START HERE
9th Grade



Architecture & Construction

2016-2020 Success Rate of Early College HS and Dual-Credit Program led to **RAPID EXPANSION** to Quickly Impact More Students



2,066 credentials awarded to dual credit students, **1,619** from ECHS and P-TECHs.



Completion rates across Dallas County ISDs:
86% Carrollton-Farmers Branch
91% Cedar Hill
72% Dallas
82% DeSoto
81% Duncanville



29% of all Dallas College Enrollments



EARLY COLLEGE PATHWAYS SUCCESS DRIVES HISTORIC EXPANSION



ECHS and P-TECH Partner Growth



**77 College & Career
Readiness School Models
with 18 school districts**

- 27 ECHS
- 35 P-TECH
- 15 T-STEM

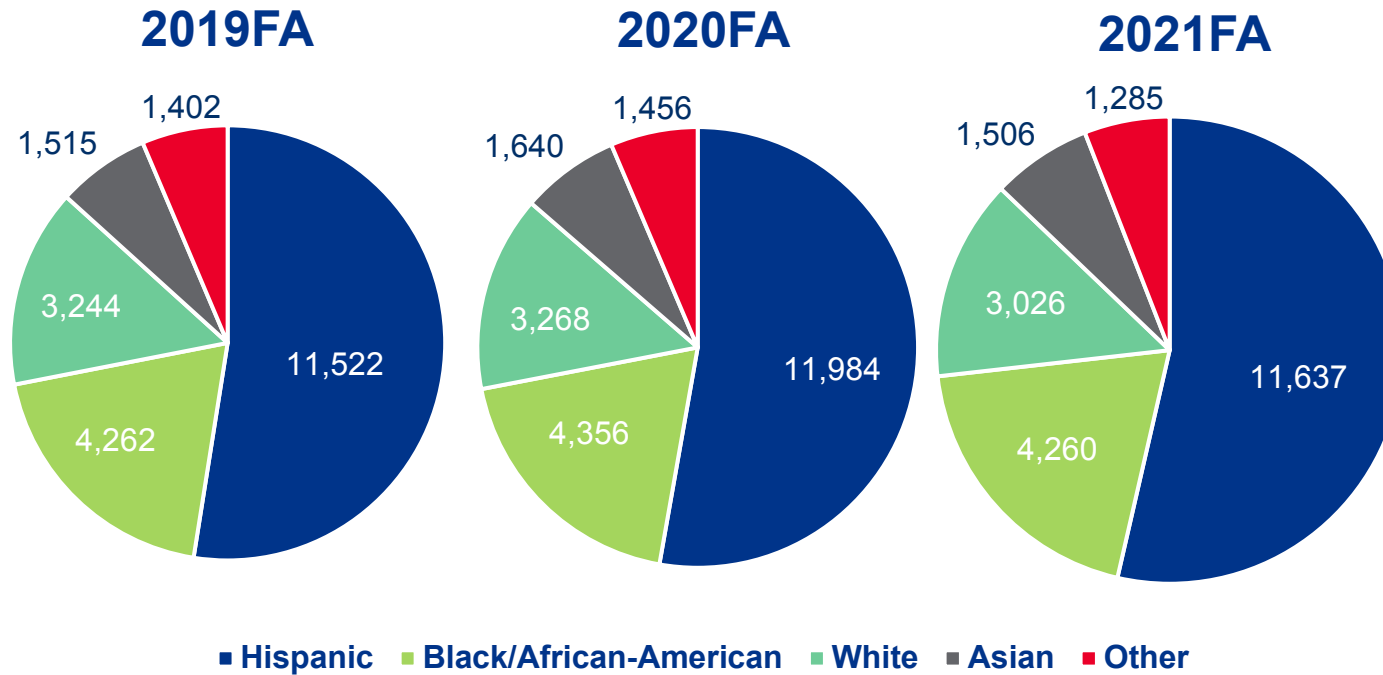
Dual Credit Partners

88 ISD High schools
45 Charter Schools
41 Private Schools





P-TECH/ ECHS/DC students continue to be predominantly Hispanic (54%) and African American (20%) to achieve 60X30 TX Goals.



DEMOGRAPHICS – P-TECH/ECHS/DC

Race and Gender

DALLAS PROMISE MAKES COLLEGE POSSIBLE WHERE COLLEGE SEEMED IMPOSSIBLE

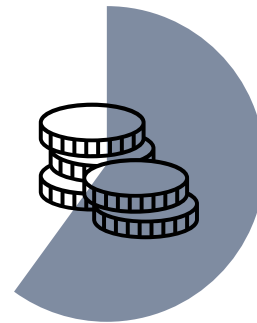


Promise provides college opportunities to the most impoverished, high-risk and unlikely college students.

57 Partner Schools in 11 ISDs

Carrollton-Farmers Branch ISD	3
Cedar Hill ISD	2
Dallas ISD	31
DeSoto ISD	1
Duncanville ISD	1
Garland ISD	5
Grand Prairie ISD	3
Irving ISD	4
Lancaster ISD	1
Mesquite ISD	3
Richardson ISD	3

16,000 total students from high-need schools registered since program inception (Cohort 1 to 4)



FAFSA completion is a **critical factor** to impoverished students enrolling in college

Dallas County Promise FAFSA completion is the **second highest in the nation**



Persistence into second fall term is above **60%** for Cohorts 1 and 2, above the FTIC cohorts (57%).





Q&A





Dual-Credit Education Programs in Texas: Phase II

JULY 2018

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David Knight | Beth Ratway | Scott Delhommer | Jesse Levin

Contributors:

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MAKING RESEARCH RELEVANT

Dual-Credit Education Programs in Texas

Phase II

JUNE 2018

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Executive Summary

This report presents findings and offers key takeaways from the second phase of a two-year study of dual-credit education programs in Texas. Phase II extends and expands research conducted by the RAND Corporation during Phase I and provides more in-depth analysis of dual-credit education programs, specifically: (1) the impact of dual-credit education programs on college access and college completion; (2) patterns in student participation and course grades in dual-credit education and delivery of dual-credit education programs before and after 2015 legislative efforts to expand access to dual-credit education; (3) factors contributing to racial disparities in dual-credit participation; (4) dual-credit advising practices; (5) similarities and differences in the academic rigor of dual-credit and college-credit only courses; and (6) the costs of delivering dual-credit education.

Analyses conducted for this report focus primarily, though not exclusively, on “traditional” dual credit education programs delivered by community colleges. By “traditional” dual credit education programs, we mean academic dual credit courses that are delivered through regular high schools (i.e. not Early College High Schools (ECHS)) that offer dual credit courses. The decision to focus on this type of model was based on evidence from Phase I showing that it was the predominant model to deliver dual credit education across the state. Moreover, a number of rigorous experimental studies of ECHS that include some Texas ECHS programs demonstrate the effectiveness of well-implemented ECHS programs for a wide range of students, including those who are traditionally underrepresented in postsecondary education. A consequence of this focus is that Phase II lends less insight into the effectiveness and the implementation of ECHS, career and technical (CTE) dual credit education, and dual credit education delivered by four-year institutions. We note throughout the report where analyses could not examine less common dual credit delivery models.

This report is organized as follows:

- **Chapter 1** examines the impact of dual-credit education programs on student success and efficient degree completion prior to the passage of House Bill (HB) 505 (2015). It also examines changes in student participation and course grades and in the delivery of dual-credit education programs before and after the passage of HB 505. Finally, this chapter examines the factors that contribute to racial and ethnic gaps in dual-credit education participation. All analysis draws on administrative records collected by the Texas Higher Education Coordinating Board (THECB) and the Texas Education Agency (TEA).

- **Chapter 2** investigates how high school students are advised relative to dual-credit education and through dual-credit courses, as well as how dual-credit education partners work together to provide advising services based on interviews with high school guidance counselors and college advisors.
- **Chapter 3** explores whether there are systematic differences in content, instructional strategies, student assignments, and grading practices between dual-credit and college-level courses by analyzing syllabi, assignments, graded student work products, and survey data from high school teachers and college faculty providing instruction in College Algebra (Math 1314/1414) and English Composition (Engl 1301).
- **Chapter 4** quantifies the costs of delivering dual-credit education; examines how these costs are shared among community colleges, school districts, and students and their families; and considers how the costs of delivering dual-credit education compare to state funding that school districts and community colleges receive for delivering dual-credit courses. The study also compares the costs of delivering dual-credit programs against the benefits that are reaped from them. The analysis employs the *Ingredients Approach* and draws on administrative records from THECB and TEA and interview data from secondary and postsecondary administrators.
- **Chapter 5** concludes with key findings from Phase II and describes the process that will be used to inform policy recommendations based on stakeholder feedback on this draft report.

Key Findings

The Impact of Dual-Credit Education Programs on Student Outcomes

- On average, participation in traditional dual-credit programs prior to the passage of HB 505 modestly improved a range of student outcomes, including college enrollment and completion.
 - This finding suggests that previous estimates of the impact of dual-credit programs on student outcomes, including the descriptive findings reported in Phase I, were probably too high because they were unable to fully account for all systematic differences (such as academic preparation, motivation, and other factors) in dual-credit participants and nonparticipants.

- The effect of participating in traditional dual-credit programs prior to HB 505 on student outcomes was more positive for traditionally advantaged student groups (e.g., White students); the effect was negative in some cases for less advantaged groups (e.g., low-income students).
 - The negative results for free and reduced price lunch eligible students were likely due to the fact that free and reduced price lunch eligible students were more likely than ineligible participants to have lower 8th grade standardized test scores that hindered their success in dual credit education courses. In particular, we found that the impact of dual credit education for free and reduced price lunch eligible students with 8th grade standardized tests scores that were one standard deviation above the mean was positive for all postsecondary outcomes, while the impact for those with average standardized test scores was largely negative.

Participation, Outcome, and Delivery Patterns Before and After Passage of HB 505

- Overall, the percentage of students participating in dual-credit programs modestly increased after passage of HB 505.
 - Growth in dual-credit participation after HB 505 was higher among ninth and 10th graders. Starting from a low base, the dual-credit participation rate more than doubled (from 1.0% to 2.1%) among ninth graders and increased by 60% (from 2.7% to 4.3%) among 10th graders.
- The academic preparation of ninth- and 10th-grade dual-credit participants declined after the passage of HB 505, while dual-credit pass rates increased for those groups. This suggests that the academic rigor of dual-credit courses may have declined for ninth and 10th graders since HB 505.

Factors Contributing to Racial and Ethnic Gaps in Dual Credit Education Participation

- Differences in observable student factors account for most, but not all, of the difference in dual-credit participation across race and ethnicity.
 - For example, the black dual credit participation rate was 10.6%, while that of white students was 24.7%. Our analysis indicated that if blacks had the same characteristics as the average white student, then their participation rate would be 22.7%, which is quite close to the 24.7% for white students. We found similar patterns for Hispanic students.

- Differences in academic preparation, family income, and the type of high school that a student attended served as the most significant contributors to disparities in dual-credit participation by race and ethnicity.
 - Differences in access to dual-credit programs, access to Advanced Placement and International Baccalaureate (AP / IB) coursework, and access to tuition and fee waivers explained little of the gap in dual-credit participation by race and ethnicity.

Dual Credit Education Advising Practices

- The extent to which high school counselors and college advisors actively encouraged students to participate in dual-credit education varied based on several factors, including state and district policies and school philosophies about which students could benefit from and succeed in dual-credit courses.
- Most high school guidance counselors played the primary role in advising dual-credit students, with one quarter sharing this responsibility with college advisors.
 - College advisors typically played a secondary role, serving as the key point of contact for high school counselors and sharing information about dual credit with prospective students and their families, except in special circumstances.
- High school students' academic and emotional readiness to participate in dual-credit education, the latitude given to students in dual-credit course selection, and the limited time advisors had to fulfill their dual-credit advising responsibilities were reported as major challenges to adequate advising.
- To improve dual-credit advising, high school counselors and college advisors most commonly sought greater clarity on credit-transfer policies, dedicated and well-trained dual-credit staff, and early advising.

The Academic Rigor of Dual-Credit Education Courses

- In the limited sample of College Algebra (Math 1314/1414) and English Composition (English 1301) courses we examined, we identified more similarities than differences in dual-credit courses taught by high school teachers (HSDC), dual-credit courses taught by college faculty (DC), and college-credit only courses taught by college faculty (CC).
 - No discernable differences existed in the content covered, the level of cognitive complexity demanded by student assignments, and the way in which instructors graded student work across HSDC, DC, and CC courses.

- The skills students were required to master varied slightly by instructor type.
 - HSDC, DC, and CC instructors required students to master similar skills in ENGL 1301.
 - Math 1314/1414 CC instructors required students to master general mathematics skills and more so than their HSDC and DC counterparts.
- Instructors across HSDC, CC, and DC courses reported using different instructional strategies to teach students college-level material.
 - HSDC and DC instructors were more likely to report using computers as instructional tools.
 - CC instructors were more likely to report requiring students to work more on their own, summarizing and analyzing information from a variety of sources, and using whole-group discussion.

The Costs of Delivering Dual-Credit Education

- In 2016–17, we estimate that the overall cost of providing dual-credit instruction was \$111 per semester credit hour for each participating student, or \$121.7 million statewide.
 - The incremental revenue generated consisted primarily of funding based upon semester credit hours (SCHs) and averaged just \$38 per SCH.
- Tuition and fees arrangements varied widely across the state and had significant effects on the distribution of costs.
- The strongest predictor of overall costs and how costs were distributed across stakeholders was the type of instructor—HSDC, DC, or CC—teaching the course.
- Our estimates suggest that the costs of dual credit delivered through ECHSs was greater overall but was similar on a per-semester credit hour basis as traditional dual credit programs.
- Overall, our estimates suggest that, on average, the benefits of dual-credit education far exceeded the costs.
 - The short-term benefits (e.g., lower state expenditures for higher education) related to reduced time to degree were 1.18 times the cost of dual credit. In other words, each dollar invested in dual credit returned \$1.18 from students spending less time in college and entering the workforce earlier. Long-term monetary benefits (e.g., tax revenues) associated with a greater number of college graduates were almost five times the estimated cost of dual credit.

Policy Recommendations

In this draft report for public comment, we do not make recommendations to develop or reform current statutes or policies that govern the delivery of dual-credit education. We recognize that deciding how policy and practice should change based on our research is a nuanced and complicated process that requires input from stakeholders representing various perspectives and opinions. Although we have engaged stakeholders in this research on an informal basis (e.g., meetings with THECB leadership, a webinar for dual-credit administrators and faculty), we are using a public comment period to more formally gather feedback on this draft report and the presented findings. The feedback we receive will play a vital role in shaping how we translate the study's findings into recommendations to reform policy and practice.

Formal Feedback Process

This draft report was released for public comment at the THECB Board Meeting on July 26, 2018. The research team also will host a webinar for interested stakeholders in early August and will present detailed findings at the Texas Association of Community Colleges (TACC) annual conference in Corpus Christi, Texas, on August 2, 2018. The American Institutes for Research (AIR), which drafted this report, welcomes comments and suggestions to help contextualize the findings and develop practical policy recommendations grounded in the research that is presented in this report and elsewhere. The public comment period will be open through August 27, 2018.

The research team will host a second webinar in late September 2018 to summarize the comments and suggestions we received through the public comment period. At this time, we also will share a draft set of policy recommendations that are grounded in the research and informed by the feedback received through the public comment period. Interested stakeholders will have the opportunity to submit feedback on the draft recommendations through October 9, 2018. The research team will then revise its recommendations based on feedback received and will present a final report at the October 25, 2018, THECB Board Meeting.

Introduction

Increasing enrollment and graduation rates in higher education, particularly among historically underserved students, represents an enduring challenge among educators and policymakers. Although evidence shows that college has become more accessible to low-income students and students of color over time, the college enrollment rate for these students has not grown at a rate comparable to that of traditionally more advantaged students (Perna, 2006). This widening gap has led to an overwhelming consensus among policymakers, practitioners, and researchers that not enough improvement has been made relative to college enrollment among disadvantaged students (Perna, 2006). What is even more troubling is that the overall U.S. college enrollment rate has recently declined (National Student Clearinghouse Research Center, 2017), and racial and ethnic disparities in college completion are widening (Pfeffer, 2018), despite efforts to make college more affordable and more responsive to student needs. While some states, like Texas, have managed to increase college enrollment and completion among students who are less likely to enroll in college (e.g., low-income students), the continuing increase in the number of poorer-resourced residents has highlighted a need to develop specific interventions to help future students pursue and finish higher education.

Identifying and scaling what works to guide more traditionally underrepresented students to and through college has been problematic for policymakers. One theory of why interventions have failed to achieve expectations cites a lack of coherence between secondary and postsecondary education systems (Kirst & Venezia, 2004). Indeed, numerous scholars have identified the misalignment of academic standards, curricula, assessment, pedagogy, and expectations between high schools and colleges and universities as putting students at risk of failing to succeed in college (Carnevale & Desrochers, 2002; Goldrick-Rab, 2010; Harvey & Houseman, 2004). Low-income students and students of color are disproportionately affected because they have fewer resources to draw upon to address this disparity (Dounay, 2008).

Dual-credit education is one alternative to business-as-usual practice that has the potential to integrate secondary and postsecondary sectors, widen college opportunities, and boost college completion as a result. Dual-credit education programs, which are jointly delivered by high schools and postsecondary education institutions, concomitantly award high school and college credit to high school students who enroll in college-level coursework (Bragg & Kim, 2005).

While originally developed to provide academically challenging content to high-achieving students, dual-credit education programs across the United States now enroll high school students with varying degrees of academic preparation and exposure to college and with an

array of postsecondary education goals and expectations. In 2013, the U.S. Department of Education reported that four of five U.S. high schools offered at least one dual-credit course (Thomas, Marken, Gray, & Lewis, 2013), illustrating that access to this intervention has become widespread across U.S. secondary schools. Bailey, Hughes, and Karp (2002) contend that the strong link between rigorous academic coursework and success in higher education has served as an impetus for enrolling mid-range and lower achieving students in dual-credit coursework.

About This Report

This report presents findings and offers key takeaways from the second phase of a two year study on dual-credit education programs in Texas. Phase II extends research conducted by the RAND Corporation (RAND) in Phase I that, during the 86th Texas Legislature, Regular Session (2017), provided Texas policymakers and practitioners with an initial appraisal of the effectiveness and implementation of dual-credit education programs.

Phase II conducts a more in-depth analysis of dual-credit education programs than Phase I, specifically investigating core issues at the heart of current debates about dual-credit education in Texas, a state that has rapidly scaled dual-credit education programs. This report builds on the Phase I study findings to provide Texas decision makers greater insight into questions about (1) the impact of dual-credit education programs on college access and college completion; (2) the quality of advising and the rigor of academic content, instructional strategies, and assessment practices; (3) the costs of delivering dual-credit education; (4) factors that contribute to racial disparities in dual-credit participation; and (5) changes in patterns of student participation in dual-credit education, the outcomes of dual-credit students, and the delivery of dual-credit coursework after the passage of legislative efforts to expand access to dual-credit education programs. The focus of this study is on “traditional: academic dual credit education delivered by community colleges. Consequently, results from Phase II lend less insight into the effectiveness and the implementation of Early College High Schools (ECHS), career and technical dual credit education, and dual credit education delivered by four-year universities and colleges. Findings developed during Phases I and II of this study provide Texas policymakers and stakeholders a more informed understanding of dual-credit education and will offer an evidence-based roadmap to guide reform intended to improve the effectiveness and cost-efficiency of dual-credit programs after the public comment period.

In the narrative that follows, we provide a brief overview of the dual-credit education landscape in Texas and describe Texas’ definition of dual-credit. We also identify the issues at the core of the current debate surrounding dual-credit education in the state. We then

summarize findings from Phase I research conducted by Miller and colleagues (2017) and describe the research conducted for Phase II. Chapters 2 through 4 present the findings from Phase II, and the report concludes with a synthesis of findings from both phases.

Overview of Dual-Credit Education in Texas

Since 2000, Texas has witnessed an unprecedented increase in the number of high school students enrolling in dual-credit education programs and in the number of public higher education institutions (HEIs) delivering dual-credit education in partnership with public high schools. Between 2000 and 2016, the count of high school students taking at least one dual-credit course rose from approximately 18,524 to 204,286, an increase of more than 1,100%. During the same period, the number of HEIs delivering dual-credit education increased from 52 to 108. At present, 79 community colleges (99%), 29 universities (59%), and 1,650 high schools (93%) provide dual-credit education in Texas.

Two major factors explain why dual-credit education has scaled so quickly in Texas:

- Since 1995, Texas has enacted legislation that has made it easier for students to participate in dual-credit courses and for HEIs to offer dual-credit education programs. The architects of these laws not only created explicit funding streams for the delivery of dual-credit courses but also required high schools to offer students the opportunity to take at least 12 hours of advanced coursework that may include dual-credit courses. In 2015, the legislature took an additional step to broaden access by passing HB 505, a bill that prohibits THECB from limiting dual-credit participation exclusively to high school juniors and seniors and from limiting the number of dual-credit courses a student can take while enrolled in high school. Nevertheless, HEIs and school districts still can implement these restrictions if they wish to do so. Based on data from fiscal year 2017, roughly half (1,545) of institutional partnerships delivered dual-credit education to ninth- and 10th-grade students.¹
- Higher education institutions, particularly community colleges, have taken advantage of new laws expanding access to college-level coursework. Many institutions promote dual-credit education as a promising strategy to increase college access and completion rates. Advocates have drawn on existing research to successfully argue that dual-credit education addresses many barriers that prevent students from accessing and

¹ It is important to note that this statistic does not reveal the amount of dual credit education delivered to ninth- and 10th-grade students. For more information about dual-credit dosage, please refer to Technical Appendix A.

succeeding in college. They argue that dual-credit education exposes students to the academic and behavioral demands of college, offers an opportunity to align curricula and content standards across secondary and postsecondary education by increasing communication and collaboration between the two sectors, and saves students time and money relative to degree attainment (Bailey et al., 2002; Edwards & Hughes, 2011; Hoover & Vargas, 2016).

Defining Dual-Credit Education in Texas

THECB defines dual-credit education as “a process by which a high school student enrolls in a college course and receives simultaneous academic credit for the course from both the college and the high school” (Texas Administrative Code [TAC], Title 19, Part I, Chapter 4, Subchapter D, Rule 4.83). This definition includes the different ways in which dual-credit education is implemented in practice. For example, we know from the Phase I study that HEIs delivered dual-credit education programs on high school and college campuses, using high school teachers and college faculty, and through face-to-face and online instruction, among other approaches. In Texas, institutions also administer dual-credit education programs in ECHS, which, according to the TEA, are secondary institutions that offer dual-credit courses that can lead to either an associate degree or at least 60 semester credit hours toward a baccalaureate degree for ninth-, 10th-, 11th-, and 12th-grade students at risk of dropping out of high school. To be considered enrolled in a dual-credit education program, dual-credit partners (i.e., the high school and the HEI) must confer *both* high school and college credit for performance in a dual-credit course. Partnerships that award either high school or college credit (but not both) for college-level coursework are not defined as dual-credit programs according to Texas law.

Debates Around Dual-Credit Education in Texas

Texas policymakers and practitioners have begun to express reservations about whether dual-credit education can deliver on its promise to narrow gaps in college enrollment and completion. Chief among these concerns is the long-held assumption that dual-credit courses are not as academically rigorous as college-credit only courses. Some dispute the notion that dual-credit instructors can or will teach courses at a level of rigor equal to that of college-level courses, given that they face enormous pressure to graduate high school students in order to meet accountability mandates.

In addition, some concerned stakeholders question whether all high school students are academically and emotionally prepared to meet the performance criteria of college-level

courses; and many have questioned how dual-credit partners select students to participate in dual-credit education programs, how they advise students regarding academic and career and technical dual-credit courses, and the extent to which high school students benefit academically from such educational programming. Because Texas does not have a uniform model to fully fund the implementation of dual-credit education programs, lawmakers also seek basic knowledge about who bears the costs of delivering dual-credit education and the extent to which stakeholders are being adequately compensated for their investment.

Summary of Phase I Findings

In July 2017, RAND published findings from Phase I of this study in an interim report on dual-credit education programs in Texas. For that report, Miller and colleagues (2017) conducted descriptive quantitative and qualitative analyses examining four focal areas of dual-credit education of interest to dual-credit stakeholders. Those areas of focus included: (1) academic achievement and degree attainment of dual-credit students versus nondual-credit students, (2) participation of different student groups in dual-credit education programs, (3) instructional and advising practices of community colleges that deliver dual-credit education, and (4) the number of credits and semesters in which dual-credit students enroll to earn a bachelor's degree. Key findings from the study's Phase I research are summarized below.

High school graduates who participated in dual-credit education programs outperformed students who did not.

- Measures of performance included grades in dual-credit courses and follow-on college-credit only courses, college remediation, enrollment, persistence, and completion.

Instructional and advising practices used to deliver dual-credit education programs were not uniform and varied across community colleges.

- Resource constraints, geographic proximity to high schools, and institutional latitude over academic matters contributed to differences in delivery approaches.

Despite notable gains among historically underserved student groups, disparities in dual-credit education by race/ethnicity, income, gender, and academic background persisted over time.

- Traditionally advantaged students (e.g., Whites, gifted, academically talented) stood a much greater chance of participating in dual-credit education than historically disadvantaged students (e.g., Black, Hispanic, economically disadvantaged).

Dual-credit students did not progress more efficiently toward a bachelor’s degree than nondual-credit students.

- High school graduates who participated in dual-credit education took about 142 credits, including credits earned in dual-credit education programs, to complete a bachelor’s degree. That average was similar to the number of credits earned by high school graduates who did not enroll in dual-credit education. Nevertheless, dual-credit students generally graduated one semester sooner than did their nondual-credit peers.

Overview of Phase II

Objective of Phase II Research

In April 2017, AIR was awarded funding to conduct Phase II of this research. The purpose of Phase II was to examine areas of dual-credit education that Phase I was unable to explore but that remained of interest to Texas state and local education decision makers. Unlike the fast turnaround (approximately six months) and relatively narrow research focus of the study’s first phase, Phase II was conducted over the course of a year and included six specific study components: (1) a causal impact study, (2) a racial disparities study, (3) an HB 505 study, (4) an advising study, (5) an academic rigor study, and (6) a cost study. In its design, Phase II intentionally provided stakeholders a more in-depth understanding of how well dual-credit education programs were working, how they were delivered to students in practice, and who bore the costs of delivering dual-credit education. Decision makers will be able to link the overall effectiveness and cost of dual-credit education with specific features of how dual-credit programs are delivered by connecting the results of all six components. This, in turn, will facilitate the identification of areas in need of support or reform.

Phase II Research Methods

Phase II was a multicomponent study that employed the concurrent mixed-model design approach. This design allowed the research team to conduct parallel quantitative and qualitative studies that, together, will help decisionmakers understand the relationships between several aspects of dual-credit education, such as its effectiveness and the ways it is delivered to high school students. To answer research questions (RQs) from Phase II, AIR drew on a range of analytical techniques and data sources. In each of the subsequent chapters of this report and in the technical appendices, we detail the methods and data used to conduct each study component.

How Phase II Research Questions Addressed Current Knowledge Gaps

Phase II was designed to answer six RQs designed to expand knowledge about dual-credit education in Texas beyond what was investigated in Phase I. Following, we list these RQs in the order in which they are presented in the report and briefly describe the knowledge gaps that motivated them, as well as the methods we used to answer them.

RQ 1: To what extent did dual-credit education increase college enrollment, credential attainment, and efficient degree completion?

Phase I found that, on average, dual-credit students outperformed students who did not participate in dual-credit education programs on a wide range of achievement measures. Generally, Texas high school students must meet various eligibility criteria to enroll in dual-credit education. Thus, students who participate in dual-credit education programs are likely different from those who do not. For example, Phase I discovered that dual-credit students were more likely to be identified as gifted, academically talented, and White than were nondual-credit students. Because Phase I did not account for differences between dual-credit and nondual-credit students, estimates measuring the effect of dual-credit education on student success captured not only the effect of dual-credit education but also the effect of individual characteristics that affect how well a student performs in school. Consequently, these measures do not describe the true impact of dual-credit education on college access and college completion.

To assess the extent to which dual-credit education—independent of other factors—affected the chances of a given student achieving academic milestones and reaching them more efficiently, AIR employed a more rigorous research method; specifically, the instrumental variable approach embedded with a difference-in-different framework. Drawing on THECB and TEA administrative data across 16 student cohorts, AIR examined the extent to which improvements in high school and college degree attainment, college enrollment, and efficient degree completion over time occurred in precise relation to when a high school began offering dual-credit courses. AIR started with the cohort of students who were in their junior year of high school in 2000. As part of the analysis, AIR also examined the extent to which participation in dual-credit education had differential impacts on student outcomes for students with varied demographic and academic backgrounds (e.g., race/ethnicity, free or reduced-price lunch status, gifted and academically talented).

Because insufficient time has passed to measure the effectiveness of dual-credit programs since the enactment of HB 505, results from this analysis apply specifically to dual-credit education

programs implemented before 2015. Moreover, our econometric approach required us to exclude dual credit delivered through ECHSs from this component of the study. We do not view this as a major limitation, since a number of rigorous studies that have included ECHS programs in Texas have documented the benefits of ECHS for a wide range of students, including those who are traditionally underrepresented in postsecondary education.

RQ 2: How did high school counselors and college advisors select students for dual-credit education, advise them into enrolling in dual-credit courses, and coordinate advising services?

Because Texas law does not prescribe how HEIs should advise dual-credit students, models of dual-credit advising vary considerably. Qualitative research conducted during Phase I found that some community colleges that delivered dual-credit education relied on high school counselors to advise dual-credit students, while other community colleges employed college advisors. Phase I also found that the degree to which college advisors interacted and engaged with dual-credit students and their families differed depending on resource constraints, geographic proximity to the high school, and the types of courses colleges offered dual-credit students.

Based on Phase I research, it is difficult to discern the extent to which these different approaches adequately support dual-credit students as they navigate the complexities of college. To address this knowledge gap, AIR conducted in-depth, semi-structured interviews with high school guidance counselors and college advisors working with dual-credit students in dual-credit education partnerships that represented the full spectrum of models delivered across the state. These interviews collected information on a range of topics that accurately characterized partnerships' advising approaches and solicited suggestions for how to improve advising processes. The interviews specifically addressed (1) the types of students who were targeted for dual-credit education; (2) the roles of high school guidance counselors and college advisors and how they worked together to coordinate advising activities; (3) the factors that high school counselors and college advisors considered when counseling students regarding specific dual-credit courses; (4) the challenges that dual-credit advisors or counselors encountered when counseling dual-credit students; and (5) suggestions from high school counselors and college advisors for improving dual-credit student advising.

It is important to note that we designed the advising study to include a broad range of DC partnerships, including ECHS, DC delivered by two and four-year colleges in both urban and rural settings, and DC programs that deliver a significant number of CTE dual credit courses.

However, the study provided richer information about advising for academic DC courses delivered by two-year colleges, since such courses represent the vast majority of DC courses delivered in the state.

RQ 3: How were dual-credit students taught and assessed relative to college-credit only students?

Institutions have considerable latitude over how they deliver dual-credit instruction. Phase I found that colleges employed a higher percentage of high school teachers to teach college courses that counted for dual-credit versus those courses counting for college credit only. Further, Phase I discovered that instructors who taught dual-credit courses were more likely to be adjunct professors and were less likely to hold doctoral degrees compared with instructors who taught college-credit only courses.

How do these differences affect the quality of instruction that dual-credit students receive, and to what extent is dual-credit instruction on par with college-credit only instruction in terms of academic rigor? To address these questions, we examined content, instructional strategies, student assignments, and graded student work across three course types: (1) dual-credit courses taught by HSDCs, (2) dual-credit courses taught by DCs, and (3) college-credit only courses taught by CCs. For this analysis, AIR focused on two common courses taken by dual-credit students: College Algebra (Math 1314/1414) and English Composition (English 1301). Using a rubric vetted by content and curriculum experts, AIR assessed the extent to which there were systematic, discernible differences in the rigor and quality of dual-credit versus college-credit only materials, including syllabi, student assignments, and graded work products (e.g., examinations, assignments, portfolios). In addition, AIR administered an instructional survey to participating teachers and faculty to collect information on the use of instructional practices across HSDC, DC, and CC courses.

It is important to note that this component of the study focused only of dual-credit and college-credit only courses delivered by community colleges, and does not distinguish between courses delivered through ECHS versus regular dual credit partnerships.

RQ 4: What were the annual costs of delivering dual-credit education, and how were they distributed among stakeholders? Also, how did these costs compare to the benefits of dual-credit education?

A key limitation of the Phase I research was its inability (due to the defined parameters of its focus) to investigate costs related to the delivery of dual-credit education programs. In Texas,

both HEIs and school districts receive formula funding to deliver dual-credit education; but they also rely on other financial sources (e.g., students, families, communities) and employ different staffing structures to support the administration of those programs. Texas lawmakers lack evidence on whether state and local funding sources for HEIs are sufficient to account for the additional costs that HEIs incur through dual-credit education or whether the state's investment in dual-credit education provides monetary returns that exceed associated costs.

Phase II shed light on this particular issue by estimating the overall cost of delivering dual-credit education in the state. It did so by calculating how the cost of delivering dual-credit education was shared among a variety of stakeholders and by conducting an analysis that compared costs of delivering dual-credit education against the monetizable benefits derived from dual-credit programs. In carrying out this study, AIR relied on a mix of data sources, including THECB and TEA administrative records; dual-credit Memoranda of Understanding (MOUs); and interviews with HEI, school district, and high school administrators to uncover the visible and hidden costs of delivering dual-credit education.

The cost study focused only on academic dual-credit courses delivered by community colleges, so the findings cannot speak to costs of CTE dual credit. However, we included a sufficient number of ECHSs in our sample to estimate the costs of DC delivered through regular DC partnerships versus ECHSs. While we purposefully included DC partnerships that deliver DC courses to rural high schools in our sample to make the cost estimates more reflective of the state as a whole, we are unable to provide separate cost estimates for DC delivered in urban versus rural settings.

RQ 5: Which factors contributed to racial and ethnic disparities in dual-credit participation?

Quantitative analyses conducted during Phase I showed that students of color (e.g., Black and Latino students) were less likely to participate in dual-credit courses compared to White students, despite the fact that students in that group experienced the largest gains in dual-credit participation since 2000 among all student groups. These data raised an important question: Why are students of color participating in dual-credit programs at lower rates than White students? Phase II answered this question by drawing on TEA and THECB administrative records to examine the extent to which the following factors could explain these participation rates:

- Differences in the preparation and demand for dual-credit education across demographic groups

- Access to dual-credit education and alternative forms of advanced coursework (e.g., Advanced Placement [AP], International Baccalaureate [IB]) across high schools
- The influence of advising practices on dual-credit participation gaps

The interviews conducted with high school guidance counselors and college advisors as part of the advising component of the study also were used to explore whether implicit bias or discrimination in advising practices might have contributed to these disparities.

RQ 6: What were the patterns in dual-credit participation, success, and delivery before and after HB 505?

Passed in 2015, HB 505 prohibited the state from limiting access to dual-credit education to juniors and seniors or from restricting the number of dual-credit semester credit hours high school students could take. Since then, lawmakers have expressed concern that the rules around who can participate in dual-credit education programs have become too lax, allowing students who are not academically or emotionally prepared to enroll in dual-credit education to do so. Although Phase I descriptively examined changes in dual-credit participation and delivery, as well as the outcomes of dual-credit students, it did so using data compiled only prior to fiscal year 2015. As such, Texas lawmakers had a minimal understanding of whether there were any changes in dual-credit participation, success, and delivery since passage of HB 505.

AIR filled this information gap by drawing on THECB and TEA administrative data to specifically examine the extent to which current dual-credit participation rates overall, by grade, and by various student characteristics (e.g., race/ethnicity, academic background) have changed since passage of HB 505. Complementing this analysis, AIR also investigated changes in college enrollment, course performance, and college completion, as well as the average number of dual-credit semester credit hours with which a student matriculated to complete a four-year degree.

The Role of THECB in Phase II Research

AIR is strongly committed to connect research to improve education policy and practice. Our researchers and technical consultants work closely with state policymakers and local practitioners to identify problems of policy and practice, as well as to address their research needs. In partnership with THECB, AIR determined dual-credit education to be a matter of interest, and THECB staff contributed their expertise to properly contextualize results and to ensure that the study could inform the Board's legislative recommendations. In addition, THECB

staff facilitated access to administrative data collected by the Board and the TEA, supported AIR efforts to collect data, and collected MOUs from Texas dual-credit partnerships. To avoid compromising the objectivity and integrity of the research, however, THECB was not involved in designing the study, gathering primary data, or analyzing primary or secondary data.

Roadmap of This Report

This report is divided into five chapters. Chapter 1 presents research conducted to examine (1) the impact of dual-credit education programs on student outcomes and efficient degree completion, (2) the factors contributing to racial and ethnic disparities in dual-credit education participation, and (3) changes in dual-credit education occurring since passage of HB 505. Chapter 2 examines how students were advised relative to dual-credit education programs and how they were guided through dual-credit education coursework, as well as how HEIs and high schools worked together to deliver dual-credit advising. Chapter 3 examines how dual-credit students are taught and assessed relative to college-credit only students. Chapter 4 quantifies the costs of delivering dual-credit education, explains how these costs are shared among stakeholders, and describes the costs of delivering dual-credit education compared with its benefits. Chapter 5 concludes this report with key findings from each study component.

Acknowledgements

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Chapter 1: Quantitative Findings

In this chapter, we present results from our quantitative analysis of dual-credit programs in Texas. We designed our quantitative analysis to address three of the primary RQs from the larger study. Specifically, we addressed the following questions:

- RQ 1 What factors contribute to racial / ethnic disparities in dual-credit participation?
- RQ 2 What changes in dual-credit participation, success, and delivery have occurred since the passage of HB 505?
- RQ 3 To what extent does dual-credit participation increase college enrollment, degree attainment, and efficient degree completion?

Questions 1 and 2 are descriptive in nature, while question 3 requires the use of state-of-the-art econometric methods to assess the causal impact of dual-credit participation on student outcomes.

Background and Policy Context

Dual-credit education has been held as a policy option that could improve college participation and completion and is expanding rapidly nationwide. Advocates of dual-credit programs argue that it can help students adjust to college expectations, provide academically challenging courses, help to align curriculum across high school and colleges, and may help lower costs to students and reduce overall time to earning a degree. Although public sentiment regarding dual-credit is positive, it is not without critics. Specific criticisms include concerns over the rigor of dual-credit courses relative to college-credit only courses, difficulties surrounding the transfer of dual-credit courses once students enroll after high school, as well as concerns that limited access and quality of dual-credit courses for disadvantaged students could exacerbate already large inequities in college enrollment and completion.

A large and growing body of national research on the impact of dual-credit education sheds light on some of these issues, but significant gaps remain. Indeed, a recent Intervention Report from the U.S. Department of Education's What Works Clearinghouse (WWC) concluded that the national research on dual-credit education has been largely positive but is lacking in many ways (U.S. Department of Education, 2017). The vast majority of the 35 studies of dual-credit considered by the WWC for the Intervention Report found that dual-credit education programs are related to positive student outcomes. However, most studies of general dual-credit education were descriptive in nature, with just three studies (An, 2013; Giani, Alexander, &

Reyes; 2014; Struhl & Vargas, 2012) employing quasi-experimental methods that met WWC standards “with reservations.” Although two experimental studies of ECHSs (Berger, Tuck-Bicacki, Garet, Knudson, & Hoshen, 2014; Edmunds et al., 2015) met WWC “without reservations” and found positive impacts on high school completion and college enrollment, it is unclear how those results translate to dual-credit education generally—where models of advising and instruction are less prescribed. Moreover, nearly all studies of dual-credit education and ECHSs focused overwhelmingly on short-term outcomes like high school completion and college enrollment, so lawmakers know very little about the extent to which dual-credit programs improve college completion or the degree to which it reduces credits or time to degree, particularly for students who are traditionally less likely to pursue a postsecondary credential after high school.

Our causal impact study addresses a number of gaps in the research base. In particular, it is one of the first studies to use methods designed to isolate the causal impact of general dual-credit programs at scale short- and long-term student outcome, and is one of the first to examine the impact of dual-credit participation on time and semester credit hours (SCH) to degree.

Organization of Chapter

We begin by describing the data we used to address each of the three RQs. Next, we describe the general approach to the descriptive analyses we used to address questions 1 and 2 and present results related to each of those questions. Next we describe our econometric approach to addressing question 3 and go on to present relevant findings from the causal impact study. We end the chapter by summarizing the key findings from the quantitative analyses.

Data

Our analyses draw on administrative databases from THECB and TEA that allow us to track Texas public high school students through high school and into any public college or university in Texas.² For FY 2000–17, we can use these files to capture individual-level information on student demographics and student participation in dual credit in high school, including the number of SCH earned in high school as dual-credit. During these years, we are also able to capture information on enrollment SCH earned and degree completion at any public or private college in Texas. For all college-level courses completed in 2012–17, which include those

² As described in the Appendix A, some analyses also track students into any private colleges in Texas, while others also track students into out-of-state colleges. We only have this data for some cohorts and outcomes, so not all analyses track students to these colleges.

delivered for dual-credit, we can also capture more detailed course-level information, including information about the course modality (face-to-face, online, or hybrid), faculty characteristics (tenured, adjunct, and whether the instructor of record was also employed as a high school teacher), and location of delivery (on a college campus, on a high school campus, or at an ECHS). We also draw on data from the National Student Clearinghouse, which allows us to capture enrollment and degree completion during Academic Year (AY) 2008-17.

We use the files above to develop two analytic data files that we draw upon for various analyses. Our primary analytic data file that we use for questions 1 and 3 tracks the 2001–16 cohorts of juniors at Texas public high schools through high school and into Texas colleges and universities, capturing information on demographics, dual-credit participation, college enrollment and completion, and SCH and time to degree. Because HB 505 was not passed until 2015, we use a different analytic file to address question 2. Specifically, we observe dual-credit participation and success for all then-current Texas public high school students from 2012–17.

We define a student being enrolled in an ECHS if the high school they attend is an ECHS or if it shares a campus with an ECHS. Prior to 2015, we cannot directly see if a student attending a high school that shares a campus with an ECHS is enrolled in dual-credit through the ECHS or through the traditional high school. As such, we treat all students on a campus with an ECHS as attending an ECHS. For questions 1-2, we omit students attending an ECHS from the analysis. For descriptive analyses in question 3 that examine the prevalence of ECHS relative to other forms of dual-credit, our estimates can be taken as an upper bound.

We describe the individual administrative data files that we draw on and the approach we used to link them to develop our analytic data files in Appendix A.

Approach to Questions 1 and 2

We use our two analytic data files to paint a rich descriptive picture of patterns in dual-credit participation, delivery and course taking in Texas over time, and we primarily rely on simple descriptive statistics presented in intuitive figures and tables to achieve this. However, where appropriate, we employ regression methods to make more nuanced comparisons. Throughout this section, unless otherwise noted, all reported differences in relevant variables are statistically significant at conventional levels (95%).

Racial Disparities

Findings Related to Question 1: What Factors Contribute to Disparities in Dual-Credit Participation?

In Phase I of the dual-credit study, RAND found disparities in dual-credit participation across race / ethnicity and income. Figure 1.1 that follows is taken from RAND's Interim Report and shows dual-credit participation rates by race/ethnicity for the 2001–15 cohorts of Texas public high school graduates. The results demonstrated that Whites and Asians had higher participation rates than Blacks and Hispanics throughout the study period. Dual-credit participation rates of White high school graduates peaked at about 30% in 2011 and declined to 26% in 2015. Dual-credit participation rates of Blacks peaked at about 13% in 2009 and declined to approximately 10% by 2015. Similarly, dual-credit participation rates of Hispanics peaked at about 20% in 2011 and declined to approximately 16% by 2015.

Figure 1.1. Dual-Credit Participation Rates by Race/Ethnicity (2001–15)

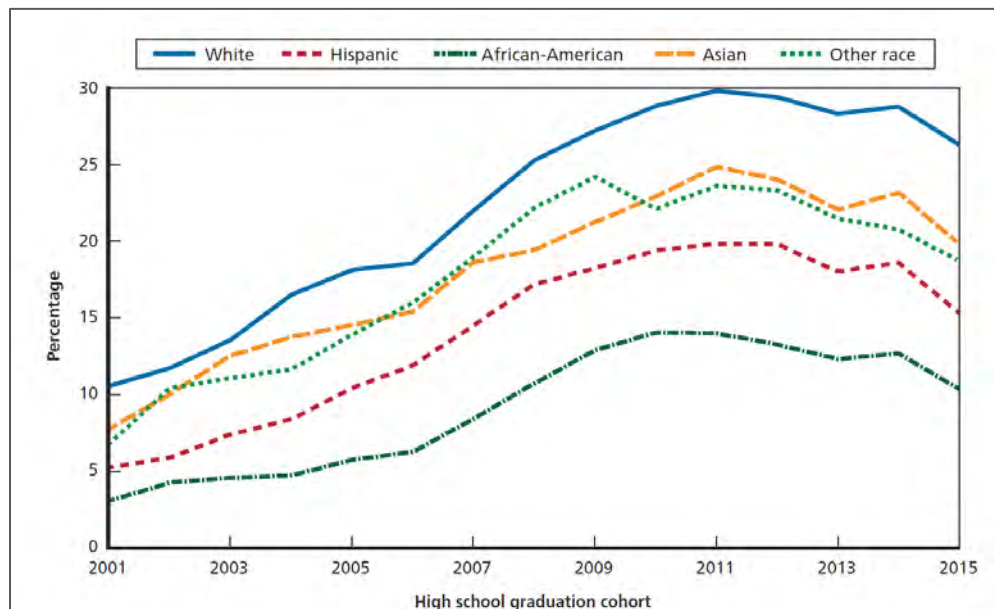
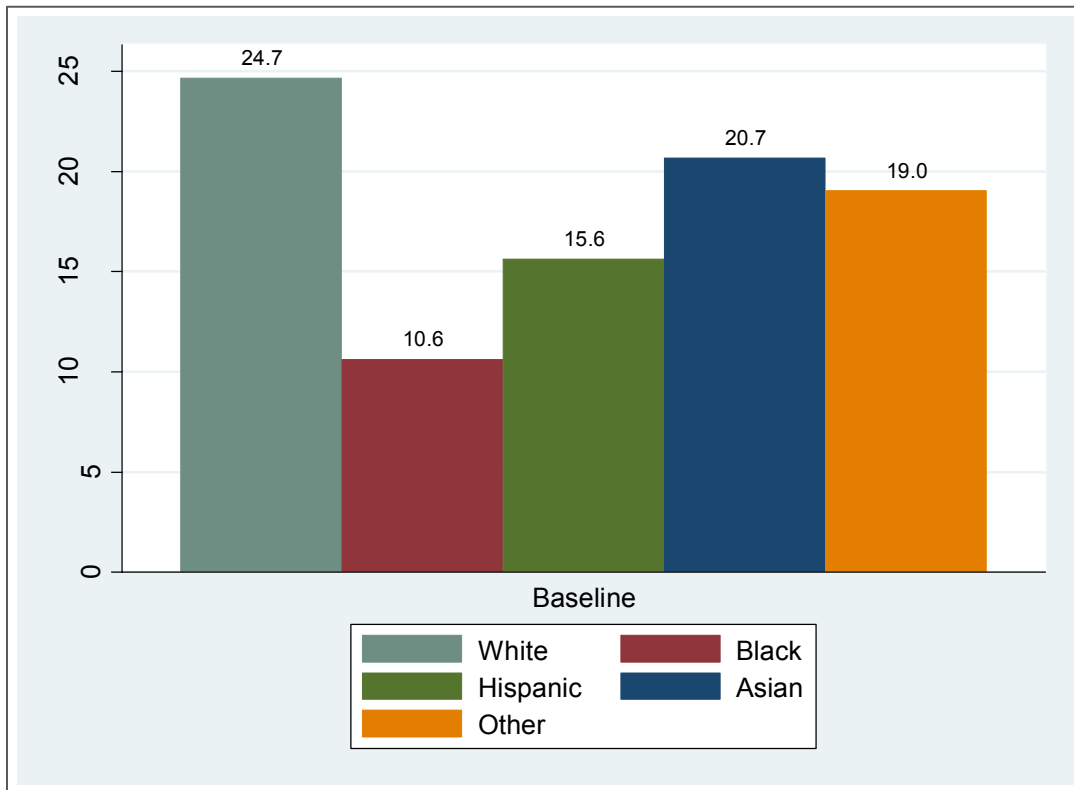


Figure 1.2 reports the dual-credit participation rate by race/ethnicity for the 2001–16 cohorts of Texas high school juniors using our updated data and confirms gaps in dual-credit participation by race/ethnicity. Specifically, while 24.7% of White Texas public high school juniors took a dual-credit course during their junior or senior year of high school, the corresponding figure for Blacks and Hispanics was 10.6% and 15.6%, respectively.

Figure 1.2. Dual-Credit Participation by Race/Ethnicity (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)



While Phase I documented the persistent disparities in dual-credit participation, it was only able to hypothesize about potential reasons underlying their existence. In this section, we use descriptive analyses to assess the extent, if any, to which different factors underlying gaps in dual-credit participation across race/ethnicity. Our analysis focuses on the following potential factors: (1) differences in dual-credit access across high schools in Texas, (2) differences in academic preparation, (3) differences in income, (4) differences in access to alternative forms of college-level coursework in high school, such as AP and IB courses, (5) differences in access to tuition and fee waivers for dual-credit students across high schools, and (6) differences in the types of high schools they attend. We also investigate in Chapter 2 whether dual-credit advising practices may contribute to disparities in dual-credit participation by race/ethnicity.

To assess the extent to which different factors contributed to the gaps shown in Figure 1.2, we began by running a series of Ordinary Least Squares (OLS) regression models predicting the probability of dual-credit participation as a function of a student's race/ethnicity, holding each factor considered constant. We then use the results of these regression models to replicate the analysis used to create Figure 1.2, holding the factor constant at the mean value for White

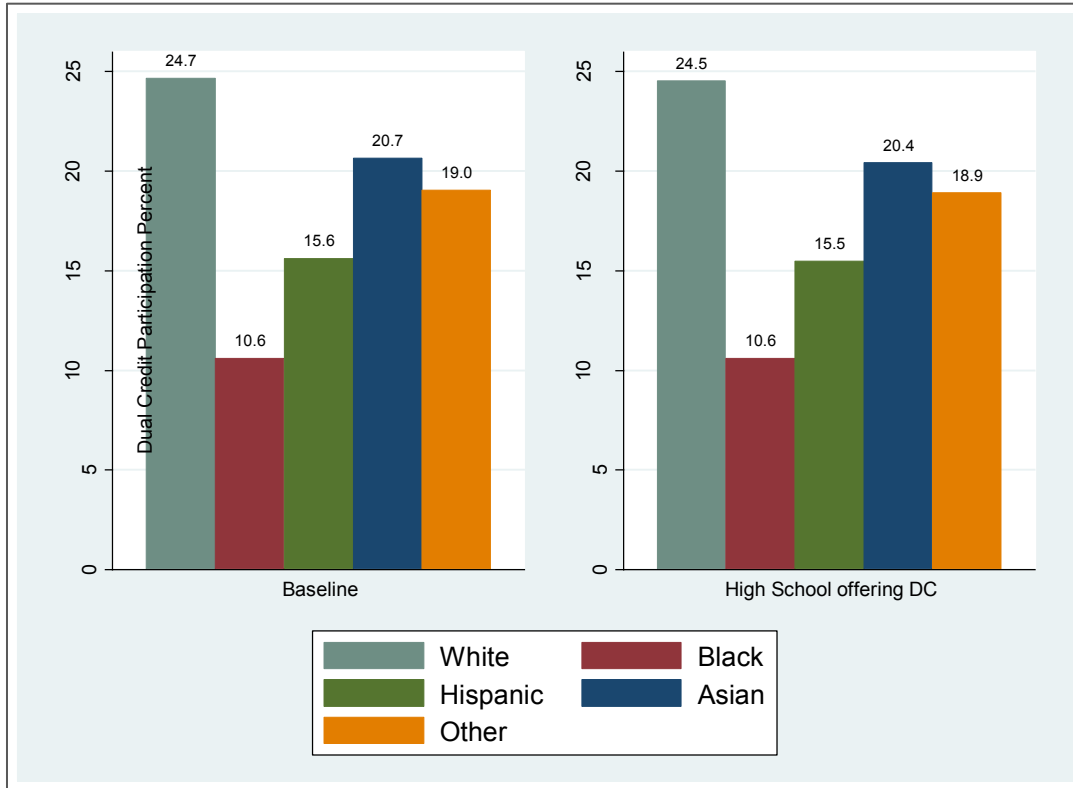
students across race and ethnic groups. We describe these models and the process used to develop the adjusted figures in greater detail in Appendix A.

Differences in Dual-Credit Access Explains Very Little of the Gap in Dual-Credit Participation Across Race/Ethnicity

One factor that could partially explain gaps in dual-credit participation across race/ethnicity is differential access to dual-credit courses. Our analysis shows that during the 2015–16 academic year, 93% of high schools in Texas offered at least one dual-credit course³. Although the rate is high statewide, it is possible that underrepresented minorities are more concentrated in schools without dual-credit programs, which would contribute to the gap in dual-credit participation across race/ethnicity. To explore this hypothesis, the rightmost set of columns in Figure 1.3 shows the predicted difference in dual-credit participation across race and ethnic groups in Texas when holding differences in dual-credit access constant across race and ethnic groups. Here, we say a student has dual-credit access if, during his/her junior year, s/he attended a high school that offered at least one dual-credit course. The leftmost set of columns in Figure 1.3 show the raw unadjusted difference in dual-credit participation by race/ethnicity that are reported in Figure 1.2. The fact that the adjusted and unadjusted dual-credit participation rates are nearly identical suggests that differences in dual-credit access across race/ethnicity explains very little of the observed gaps in dual-credit participation across those groups.

³ The majority of high schools that did not offer dual-credit courses were non-traditional schools such as alternative, charter, or disciplinary schools.

Figure 1.3. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Dual-Credit Access (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)

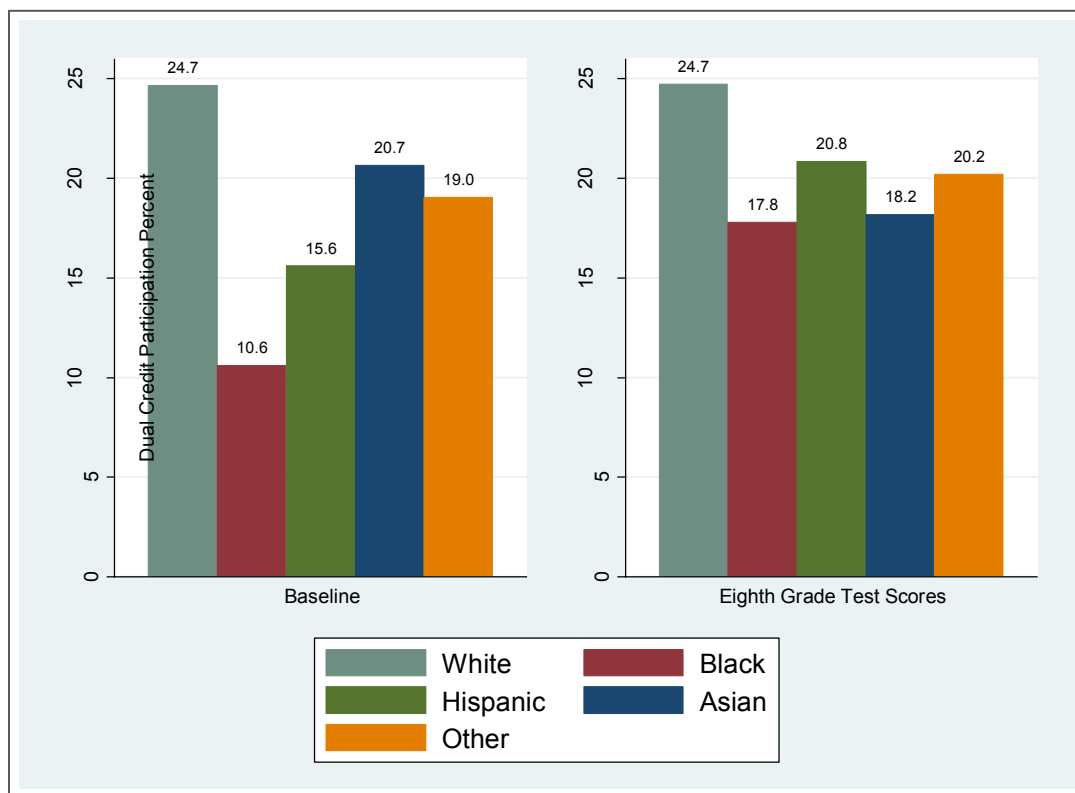


Differences in Academic Preparation Explain Some, But Not All, of the Gap in Dual-Credit Participation Across Race/Ethnicity

Another factor that could partially explain differences in dual-credit participation across race/ethnicity is differences in academic preparation. Dual-credit participation is limited to students who are academically prepared to take dual-credit courses, and eligible students with lower levels of baseline preparation may be less likely to participate in dual credit due to the difficulty of the course or lower desire to enroll in college after high school. Because we know that underrepresented minorities tend to have lower achievement test scores compared to Whites on average, this factor is likely to contribute to the observed differences in dual-credit participation across race/ethnicity. To examine this, the rightmost columns of Figure 1.4 shows the predicted difference in dual-credit participation across race and ethnic groups in Texas when holding differences in academic preparation constant across race and ethnic groups. We proxy for academic preparation in a student's junior year by controlling for his/her score on that state mathematics and reading achievement tests, the Texas Assessment of Academic

Skills (TAAS), Texas Assessment of Knowledge and Skills (TAKS), or State of Texas Assessments of Academic Readiness (STAAR) exams, in the eighth grade. The results suggest that differences in academic preparation across race/ethnicity contribute significantly to the observed gaps in dual-credit participation. For example, if Hispanic students had the same eighth grade mathematics and reading scores as the typical White student, then their dual-credit participation rate would increase from 15.6% to 20.8%. Similarly, if Black students had the same eighth grade mathematics and reading scores as the typical White student, then their dual-credit participation rate would increase from 10.6% to 17.8%. The adjusted participation rates for underrepresented minorities are still below the dual-credit participation rate of 24.7% for White students, suggesting that differences in academic preparation do not fully explain the dual-credit participation gap.

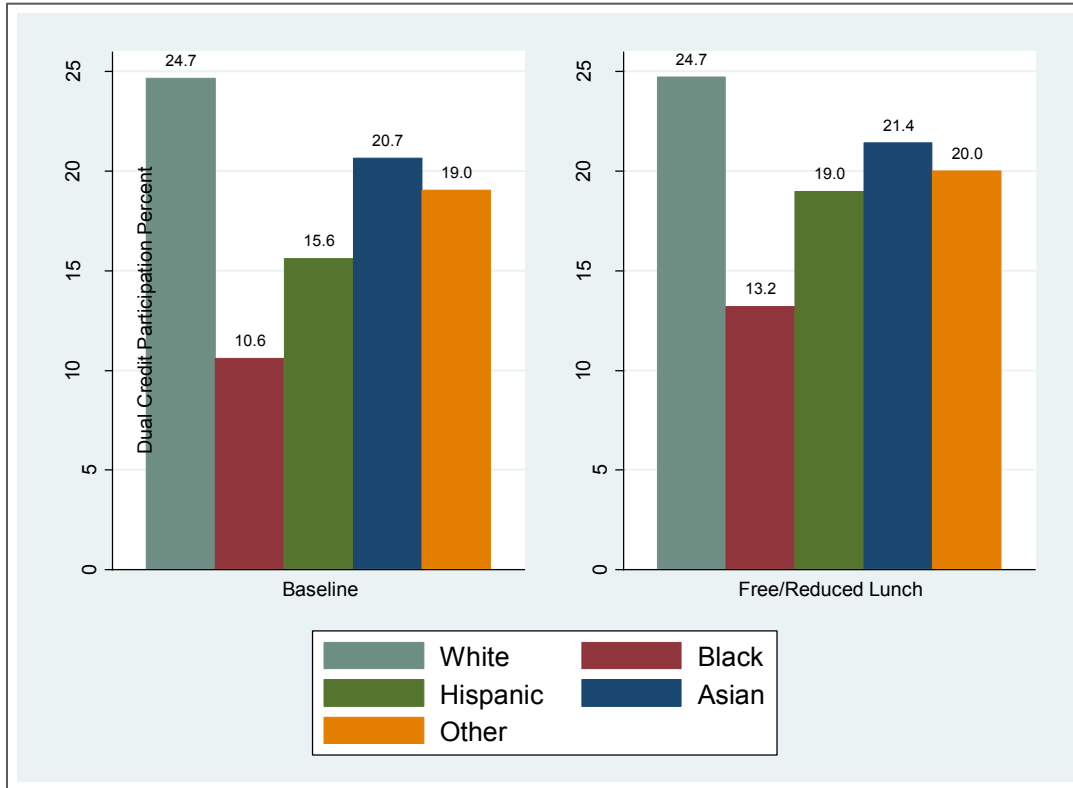
Figure 1.4. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Eighth-Grade Achievement Test Scores (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)



Differences in Income Explain Some, But Not All, of the Gap in Dual-Credit Participation Across Race/Ethnicity

Another factor that could partially explain differences in dual-credit participation across race/ethnicity is differences in income. In many cases, dual-credit participants must contribute to tuition and fees or purchase books and other course materials for dual-credit courses. In other cases, students may need transportation to attend dual-credit courses on college campus. Because we know that underrepresented minorities tend to have lower income compared to Whites on average, this factor is likely to contribute to the observed differences in dual-credit participation across race/ethnicity. To explore this factor, Figure 1.5 shows the predicted difference in dual-credit participation across race and ethnic groups in Texas when holding differences in income (measured by free or reduced-price lunch eligibility) constant across race and ethnic groups at the mean value for White students. The results suggest that differences in income across race/ethnicity contribute significantly to the observed gaps in dual-credit participation. For example, if Hispanic students had the same rate of free or reduced-price lunch eligibility as the typical White student, then their dual-credit participation rate would increase from 15.6% to 19.0%. Similarly, if Black students had the same rate of free and reduced price eligibility as the typical White student, then their dual-credit participation rate would increase from 10.6% to 13.2%. The adjusted participation rates for underrepresented minorities are still well below the dual-credit participation rate of 24.7% for White students, suggesting that differences in income do not fully explain the dual-credit participation gap.

Figure 1.5. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Free or Reduced-Price Lunch Eligibility (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)

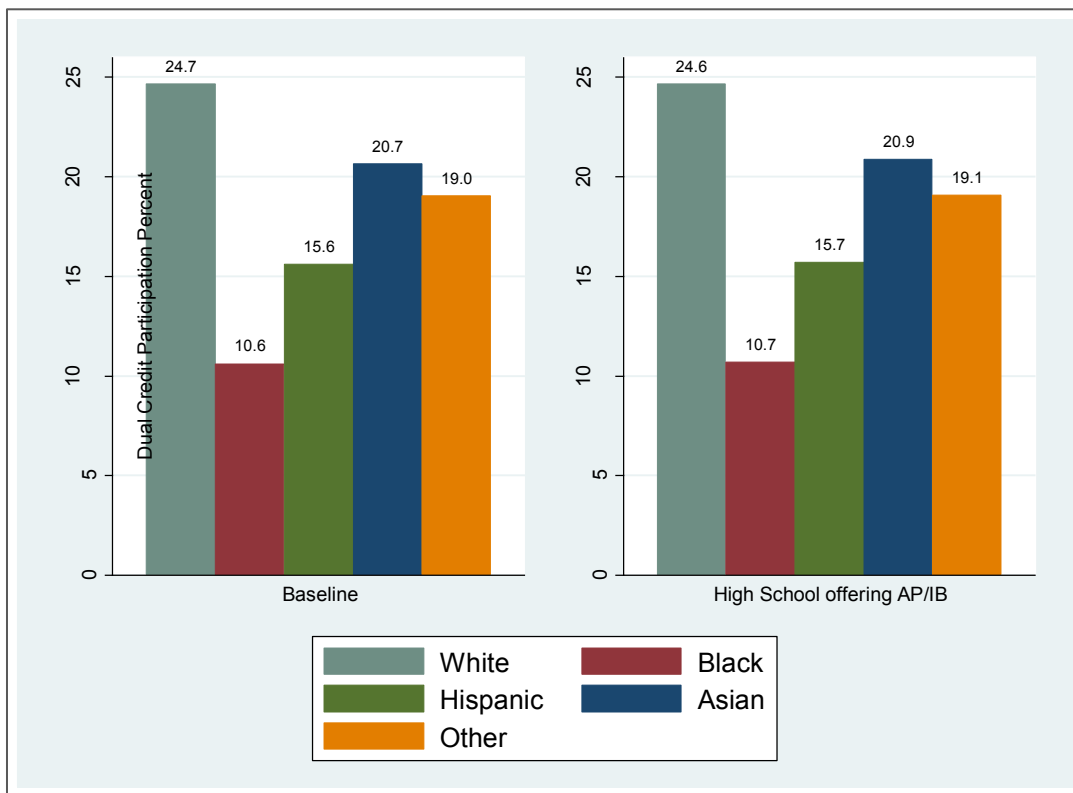


Differences in Access to AP or IB Coursework Explains Very Little of the Gap in Dual-Credit Participation Across Race/Ethnicity

Another factor that could partially explain gaps in dual-credit participation across race/ethnicity is differential access to other forms of advanced coursework like AP and IB courses. When such courses are present, students may opt to take them in lieu of dual-credit courses. Not all high schools in Texas offer AP or IB courses to their students. Indeed, our analysis shows that during the 2015–16 academic year, 94% of high school juniors in Texas attended a high school that offered at least one AP or IB course. If White students are more likely than underrepresented minorities to attend high schools that offer AP or IB courses, this might explain part of the gap in dual-credit participation across race/ethnicity. The rightmost set of columns in Figure 1.6 below shows the predicted difference in dual-credit participation across race and ethnic groups in Texas when holding differences in access to AP and IB courses constant across race and ethnic groups. As with previous figures, the leftmost set of columns replicates the baseline dual-credit participation rates from Figure 1.2. Here, we say a student has access to AP or IB

courses if, during his/her junior year, s/he attended a high school that offered at least one AP or IB course. The fact that adjusted participation rates in the rightmost columns of Figure 1.6 are nearly identical to the baseline dual-credit participation rates in the leftmost columns suggests that differences in access to AP and IB courses across race/ethnicity explains very little of the observed gaps in dual-credit participation across those groups.

Figure 1.6. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Access to AP and IB Courses (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)



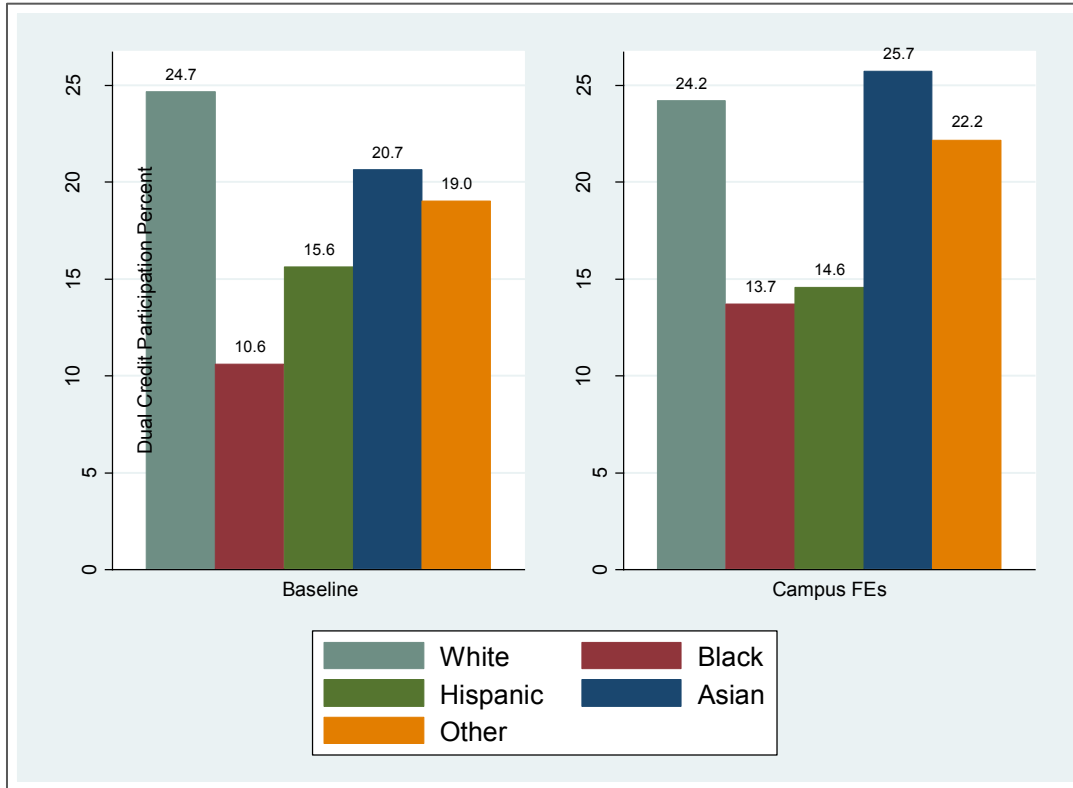
Differences in High Schools Attended by Students of Different Race/Ethnic Groups Explains Some, But Not All, of the Gap in Dual-Credit Participation

Another factor that could explain some of the gap in dual-credit participation across race/ethnic groups is differences in the high schools attended across race/ethnicity. White students are more likely to attend better resourced schools in more affluent areas. Attendance at such schools may promote dual-credit participation by better preparing students for dual-credit coursework, by more actively promoting dual-credit programs to students, or by exposing students to more peers with college aspirations. To explore this factor, Figure 1.7 shows the

predicted difference in dual-credit participation across race and ethnic groups in Texas when holding high school attendance patterns constant across race and ethnic groups at the mean value for White students.⁴ The results suggest that differences in high school factors across race/ethnicity contribute significantly to the observed gaps in dual-credit participation for Black students, but not much for Hispanic students. For example, if Black students attended the same high schools in equal rates as White students, then their dual-credit participation rate would increase from 10.6% to 13.7%. Although the results suggest that if Hispanic students attended the same high schools in equal rate as White students, then their dual-credit participation rate would decrease slightly from 15.6% to 14.6%, this difference is not statistically significant. In either case, the adjusted participation rates for underrepresented minorities are still well below the dual-credit participation rate of 24.7% for White students, suggesting that differences in where students go to high school do not fully explain the dual-credit participation gap.

⁴ To do so, we run an OLS model predicting dual credit participation by race/ethnicity and including a high school fixed effect. We then project the dual credit participation rate for each race/ethnic group for a student with a weighted average of the high school fixed effects, where the weight for a given high school is the share of White students at the high school divided by the total number of White students in the state.

Figure 1.7. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Where Students Attended High School (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)

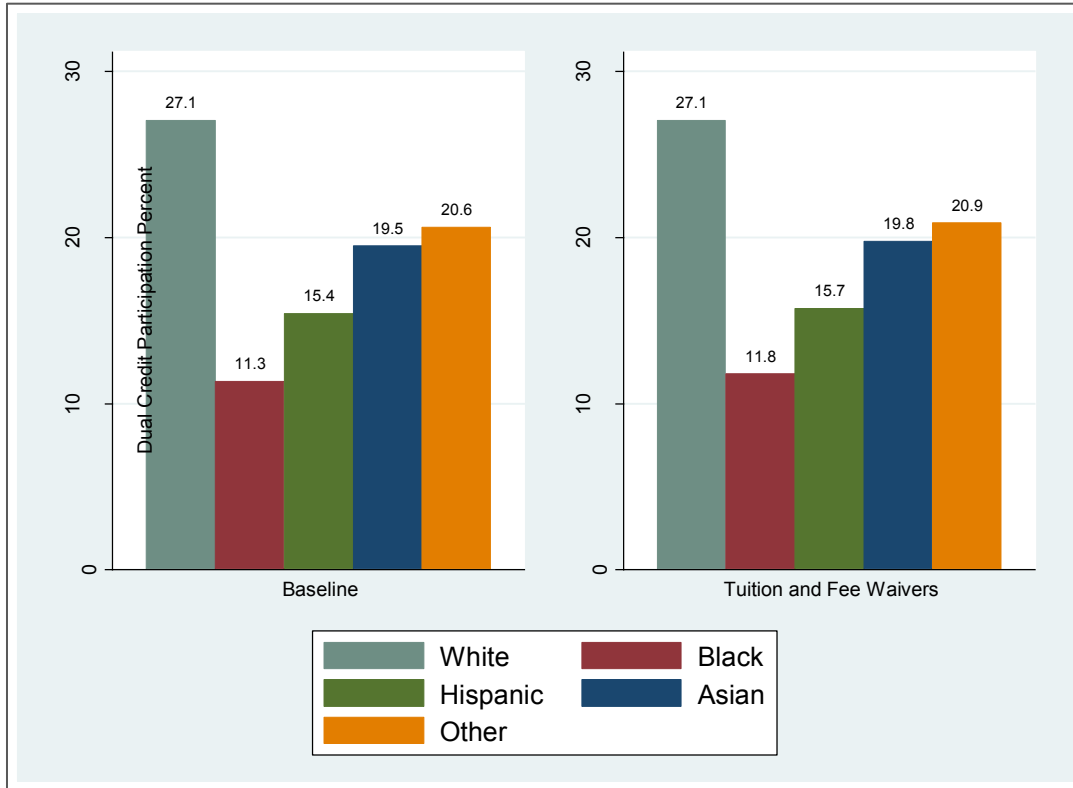


Differences in Access to Tuition and Fee Waivers Across High Schools Within Texas Explains Very Little of the Gap in Dual-Credit Participation Across Race/Ethnicity

Another factor that could explain some of the gap in dual-credit participation across race/ethnicity is access to tuition and fee waivers for dual-credit courses. As described later in Chapter 4, policies governing the charging of tuition and fees for dual-credit students varies considerably across dual-credit programs. Many community colleges do not charge tuition to any of their dual-credit students, some charge the same tuition for a dual-credit course as they would for a college credit only course, and still others charge some tuition but a lower rate than is charged for the equivalent college-credit only course. In some cases, community colleges offer tuition and fee waivers or discounted tuition to some dual-credit students but not others. If White students are more likely to attend high schools with community college partners that offer tuition and fee waivers than are underrepresented minorities, this could explain some of the gap in dual-credit participation across race/ethnicity. To explore this factor, we obtained data from the Texas Association of Community Colleges on tuition and fee waiver policies for

the 2016–17 academic year at all community colleges in Texas. The data provide information on whether each community college provided a full or partial tuition and fee waiver to all or some of the students taking dual-credit courses at their institution. The rightmost set of columns in Figure 1.8 below shows the predicted difference in dual-credit participation across race and ethnic groups in Texas when holding differences in access to tuition and fee waivers constant across race and ethnic groups. Figure 1.8 was only calculated using AY 2015–16 junior students, and the baseline figure was replicated with the changing sample. Here, we say a student has access to a tuition/fee waiver if, during his/her junior year, s/he attended a high school that that partnered with a community college that offered a full or partial tuition and fee waiver to all of its students. Although the adjusted participation rates for underrepresented minorities in the rightmost columns of Figure 1.8 are slightly higher than the corresponding unadjusted rates in the leftmost columns, the difference is never statistically significant. This suggests that differences in access to tuition and fee waivers across high schools in Texas explains little of the gap in dual-credit participation by race/ethnicity. It is important to note that this does not mean that tuition and fees are not a barrier to dual-credit participation for underrepresented or low-income students. In particular, our analysis only examines whether differences in access to tuition and fee waivers across race/ethnicity explain gaps in dual-credit participation; it does not examine whether tuition and fee waivers improve dual-credit participation rates overall or for underrepresented minorities or low income students.

Figure 1.8. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in Dual-Credit Tuition and Fee Waivers (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2016; $n = 311,383$)

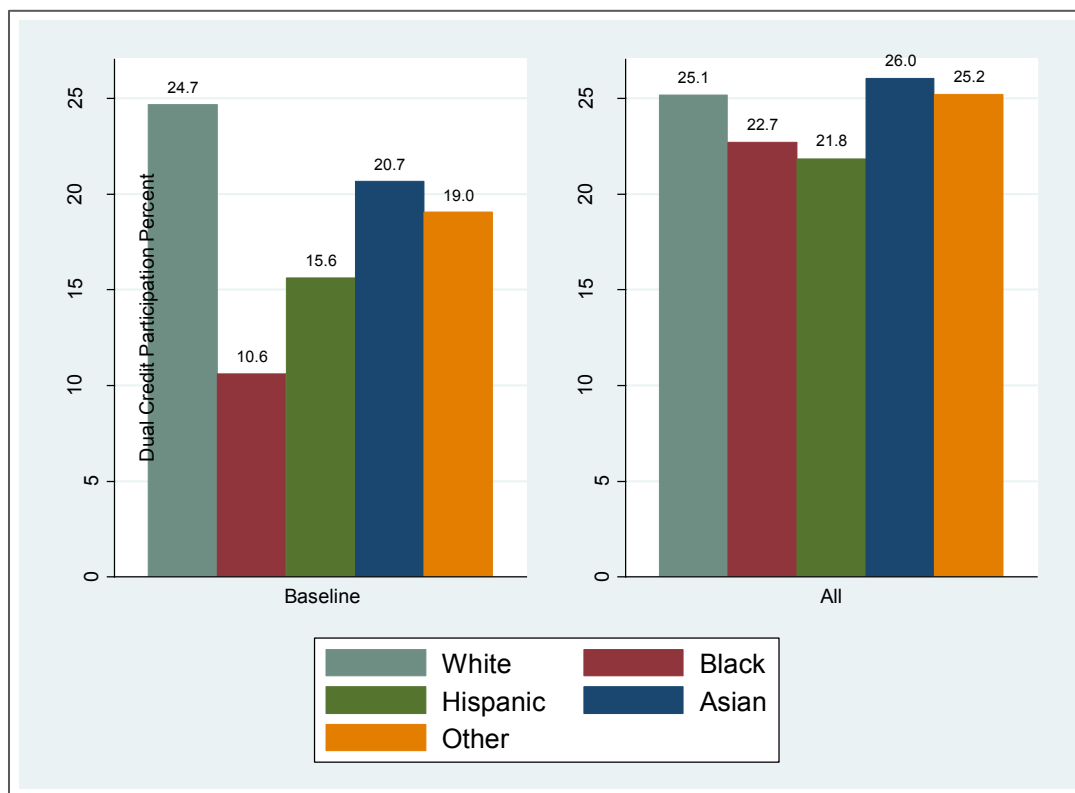


Combined, the Six Observable Factors Considered Explain Most, But Not All, of Gap in Dual-Credit Participation Across Race/Ethnicity

The previous analysis has shown that differences in academic preparation, income, and high school attendance patterns each explain some, but not all, of the gap in dual-credit participation across race/ethnicity. At the same time, differences in access to dual-credit and AP and IB courses and tuition and fee waivers do not appear to explain much of this gap. The analysis so far has examined each of these factors on its own. To take the analysis a step further, we used a similar approach to assess the extent to which all of these factors combined contribute to gaps in dual-credit participation. To do so, we ran a regression model predicting the probability of dual-credit participation as a function of a student's race/ethnicity, holding all of these observable factors considered constant, and then used the results to project the dual-credit participation rate by race/ethnicity holding all factors constant at the median value for

White students.⁵ Figure 1.9 displays these results graphically and demonstrate that the factors we considered explain most, but not all, of the dual-credit participation gap. For example, if Hispanic students had the same value for all factors as the typical White student, then their dual-credit participation rate would increase from 15.6% to 21.8%. Similarly, if Black students had the same value for all factors as the typical White student, then their dual-credit participation rate would increase from 10.6% to 21.8%. The adjusted participation rates for Black and Hispanic students are only slightly lower than the White participation rate of 24.7%, suggesting that the factors explain most of the overall gap in dual-credit participation. Overall, this suggests that if underrepresented minorities were equally prepared academically, had similar incomes to and attended similar schools as white students, then gaps in DC participation would be quite small.

Figure 1.9. Dual-Credit Participation by Race/Ethnicity, Adjusting for Differences in All Factors Considered Previously (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,422,095$)



⁵ Note that to implement this approach for all cohorts, we could not include access to tuition and fee waivers in the model. This is because we had data on tuition and fee waivers only for the 2016-17 academic year.

One additional factor that could contribute to differences in dual-credit participation across race/ethnicity is differences in advising practices. If high school and college staff who advise students for dual-credit courses exhibit explicit or implicit biases that disadvantage underrepresented minorities, this could contribute to gaps in dual-credit participation. We were unable to explore this factor quantitatively but assess it qualitatively in Chapter 2 and find little evidence to support the existence of biases in advising practices.

HB 505 Study

What Changes in Dual-Credit Participation, Success, and Delivery Have Occurred Since the Passage of HB 505?

In 2015, the 84th Texas Legislature passed HB 505, which loosened prior restrictions on dual-credit access in a number of ways. Specifically, HB 505 did the following:

1. Removed limitations on the number of dual-credit courses a student may take during high school
2. Removed limitations on the number of dual-credit courses a student may take each academic year
3. Allowed ninth and 10th grade students to enroll in dual-credit coursework that is not delivered in an ECHS

Phase I did not examine trends in dual-credit participation, success, and delivery since the passage of HB 505. In this section, we address that gap by using THECB and TEA data⁶ to descriptively examine changes in student participation and outcomes, as well as changes in how institutions are delivering dual-credit education to high school students.

Note that data examining trends in student participation and outcomes, and in the delivery of dual-credit education prior to the passage of HB 505 include the 2012–15 fiscal years; data examining these same trends after the passage of HB 505 include the 2016–17 fiscal years.

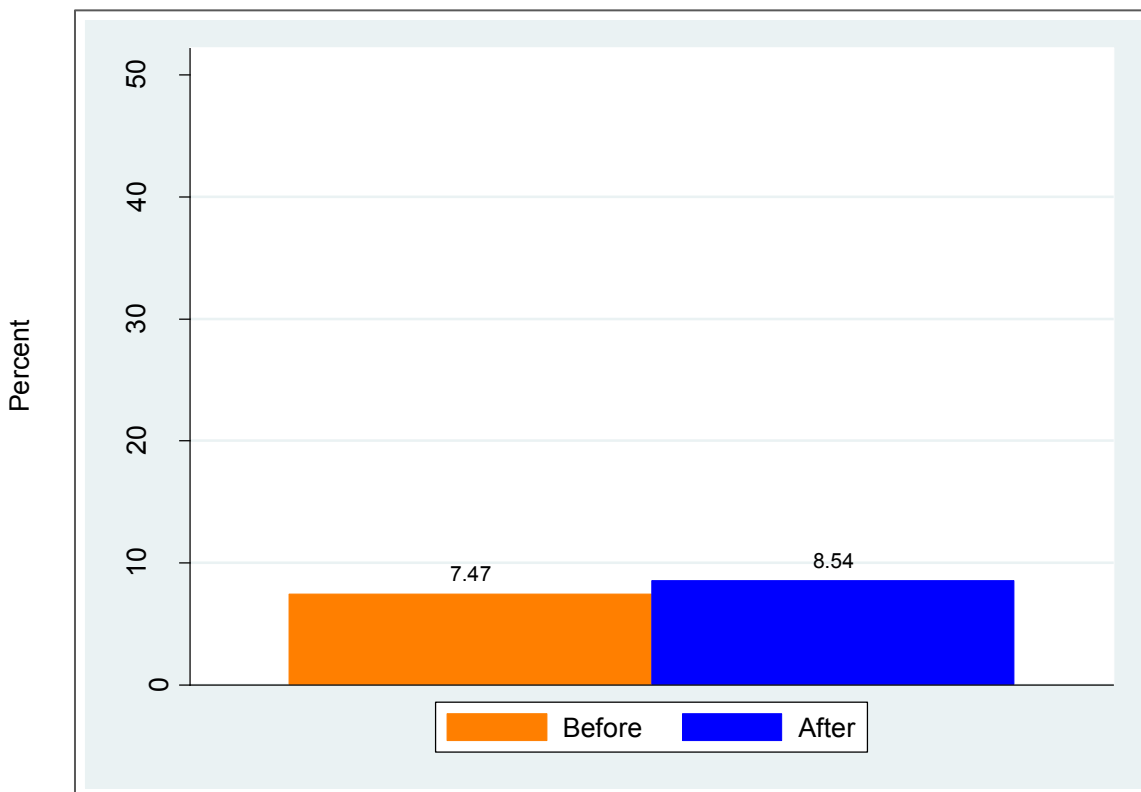
⁶ As described in Appendix A, given how recently HB 505 was passed, we use an analytic file that observed dual credit participation and success for all Texas public high school students from 2012–17. This allowed us to capture trends in dual credit participation by grade for the 2012–17 academic years.

Changes in Dual-Credit Participation Since HB 505

Overall Dual-Credit Participation Rate Held Relatively Steady Since HB 505

Given that HB 505 loosened restrictions on dual-credit participation in a number of ways, we were interested in whether dual-credit participation had increased since the bill's passage. Figure 1.10 shows trends in the overall dual-credit participation rate from 2012–17 and demonstrates that dual-credit participation held relatively flat over that time frame. The participation rate among all ninth to 12th grade students was 7.47% prior to the passage of HB 505 from 2012–15, and increased slightly to 8.54% from 2016–17.

Figure 1.10. Dual-Credit Participation Rate Among All Texas Public High School Students (2012–17; $n = 8,580,735$)

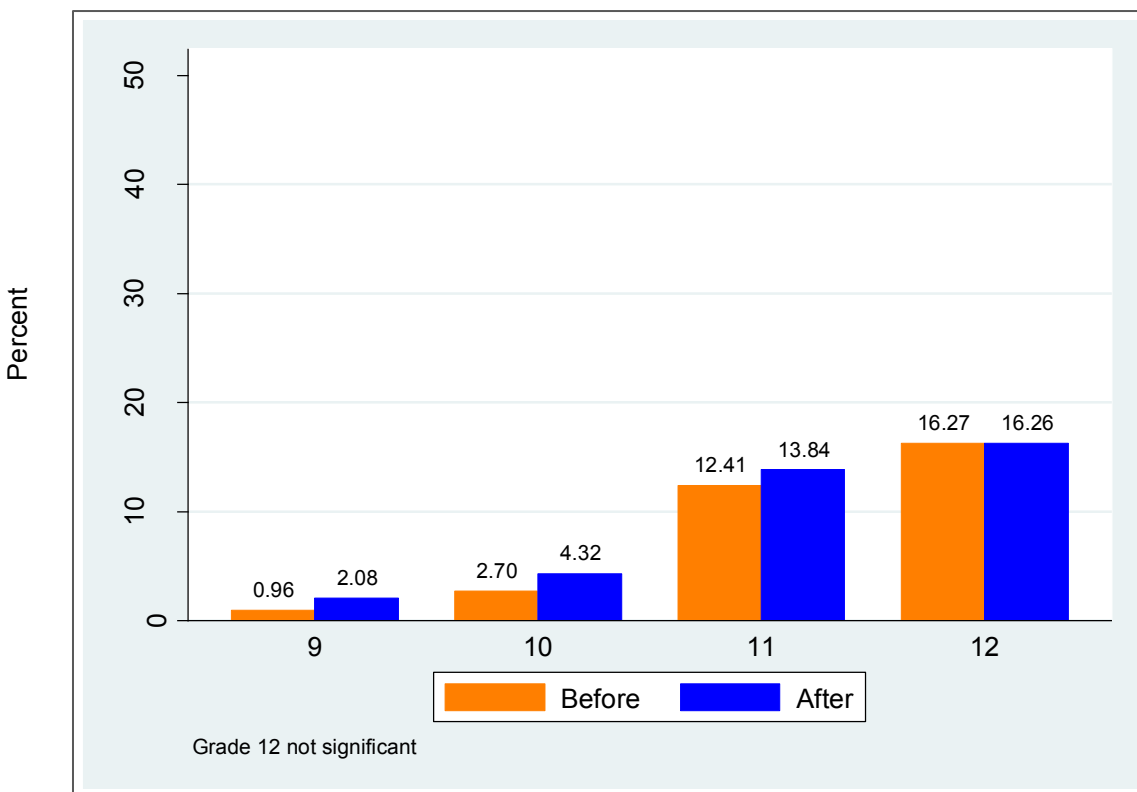


Dual-Credit Participation Among Ninth and 10th Graders Increased Significantly But Is Still Low Overall

Since HB 505 specifically loosened restrictions on dual-credit participation among ninth and 10th graders, we also assessed trends in dual-credit participation rates by grade from 2012–17.

These trends are presented in Figure 1.11 and demonstrate that dual-credit participation held relatively flat over that time frame for 11th and 12th graders, who make up the vast majority of dual-credit participants. Specifically, from 2012–17, the participation rate among 11th graders hovered around 13% and around 16% for 12th graders. In contrast, while the participation rate among ninth and 10th graders was low before and after the passage of HB 505, the rate increased considerably in percentage terms among these two groups. In particular, the participation rate more than doubled from 1.0% to 2.1% among ninth graders (from 4,479 to 7,721 students annually) and increased by 60% from 2.7% to 4.3% among 10th graders (from 8,445 to 19,192 students annually).

Figure 1.11. Dual-Credit Participation Among Texas Public High School Students by Grade (2012–17; $n = 8,580,735$)

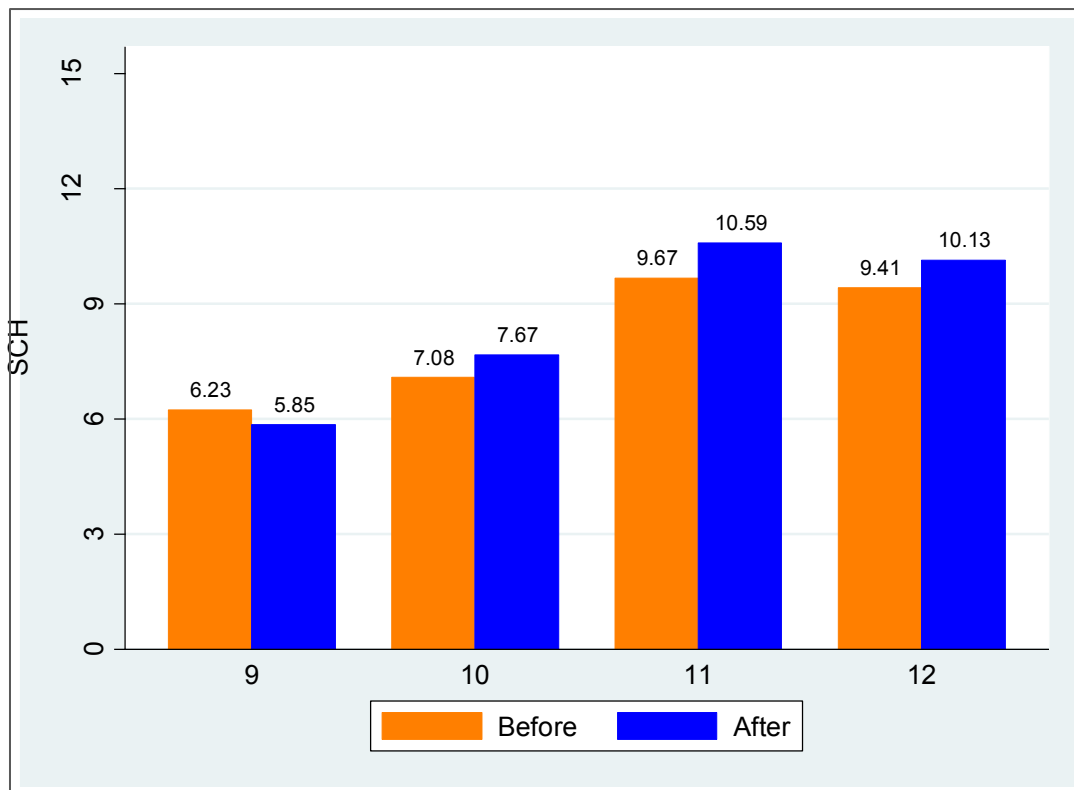


Semester Credit Hours of Dual Credit Taken Among Dual-Credit Participants Increased Since HB 505

HB 505 also loosened restrictions on the number of dual-credit courses a student could take each academic year and overall during high school, so we were interested in whether the number of SCH of dual credit taken among dual-credit participants increased after the passage

of HB 505. Figure 1.12 presents trends in the number of SCH of dual credit taken among dual-credit participants by grade before and after HB 505. The results demonstrate that the number of SCH of dual credit taken by dual-credit participants increased among 10th–12th graders, but declined slightly among ninth graders after HB 505. Overall, the number of SCH of dual credits taken by dual-credit participants was highest among 11th and 12th participants who took an average of 9.7 and 9.4 SCH of dual credit prior to HB 505 versus 10.6 and 10.1 SCH after HB 505. Although the overall dual-credit participation rate was low among ninth and 10th graders, the number of SCH of dual-credit taken by participants in those grades was relatively high (6.2 and 7.1 SCH before HB 505 versus 5.9 and 7.7 SCH afterward).

Figure 1.12. SCH of Dual Credit Taken Among Dual-Credit Participants by Grade (2012–17; $n = 673,151$)



Changes in Dual-Credit Context Since HB 505

Dual-Credit Course Offerings Similar Since HB 505 and Are Concentrated Within the Academic Core

Table 1.1 presents the 10 most common dual-credit courses before and after the passage of HB 505. The most common dual-credit courses include English Composition (English 1301 and 1302), government, history, economics, and College Algebra and have remained relatively unchanged since the passage of HB 505. This suggests that while HB 505 loosened restrictions around the number of dual-credit courses that students can take, postsecondary institutions and partner high schools may be nevertheless implementing advising policies that restrict the types of dual-credit courses that students can take. This finding is consistent with qualitative evidence on advising practices that is presented in Chapter 2. In addition, it is consistent with the fact that the state restricts the actual courses that can be offered and / or funded for dual credit.

Table 1.1. Most Common Dual-Credit Courses for All Students (2012–17)

Before HB 505		After HB 505	
Course	Percent of all DC SCH represented by course	Course	Percent of all DC SCH represented by course
ENGL 1301	10.69%	ENGL 1301	9.67%
ENGL 1302	10.00%	ENGL 1302	8.59%
HIST 1302	7.30%	HIST 1302	6.47%
HIST 1301	6.79%	GOVT 2305	6.25%
GOVT 2305	5.74%	HIST 1301	6.24%
ECON 2301	4.30%	ECON 2301	3.77%
MATH 1314/1414	3.57%	MATH 1314/1414	3.48%
PSYC 2301	1.90%	PSYC 2301	2.09%
ENGL 2322	1.71%	ENGL 2322	1.88%
ENGL 2323	1.42%	GOVT 2306	1.73%

Dual-Credit Course Offerings Among Ninth and 10th Graders Are Rarely Within the Academic Core

We also examined the most common dual-credit courses before and after HB 505 by grade. These results are presented in Table 1.2 and show little differences in common dual-credit courses over time across grades. However, more interestingly, Table 1.2 also demonstrates that while 11th and 12th graders mostly take courses within the academic core, ninth and 10th grade students take courses that help them build study skills or rarely require demonstrating college readiness, such as Learning Frameworks (Education 1300) and Art Appreciation (Art 1301). The course-taking patterns observed here are consistent with qualitative findings from Chapter 2, which suggest that high school guidance counselors tend to usher younger students into dual-credit courses that do not require students to demonstrate college readiness to prepare them for more rigorous dual-credit courses they will encounter as juniors and seniors.

Table 1.2. Most Common Dual-Credit Courses Before and After HB 505, by Grade (Percent of All DC SCH Represented by Course)

Ninth and 10th Grade				11th and 12th Grade			
Before HB 505		After HB 505		Before HB 505		After HB 505	
Course	% DC SCH	Course	% DC SCH	Course	% DC SCH	Course	% DC SCH
EDUC 1300	5.07%	EDUC 1300	6.09%	ENGL 1301	11.65%	ENGL 1301	10.99%
SPCH 1311	5.02%	ARTS 1301	4.36%	ENGL 1302	10.99%	ENGL 1302	9.85%
HIST 1302	4.40%	SPCH 1315	4.28%	HIST 1302	7.63%	GOVT 2305	7.03%
ARTS 1301	3.97%	HIST 1302	3.96%	HIST 1301	7.23%	HIST 1302	6.90%
SPCH 1315	3.35%	SOCI 1301	3.63%	GOVT 2305	6.16%	HIST 1301	6.84%
PSYC 2301	3.24%	PSYC 2301	3.40%	ECON 2301	4.65%	ECON 2301	4.31%
HIST 1301	2.97%	SPAN 1411	3.33%	MATH 1314/1414	3.69%	MATH 1314/1414	3.72%
COSC 1301	2.96%	SPCH 1311	2.95%	ENGL 2322	1.90%	ENGL 2322	2.21%
SPAN 1411	2.60%	HIST 1301	2.75%	PSYC 2301	1.75%	PSYC 2301	1.87%
MATH 1314/1414	2.51%	COSC 1301	2.71%	ENGL 2323	1.58%	GOVT 2306	1.80%

Characteristics of Dual-Credit Courses Changed Modestly Since HB 505

We also examined trends in characteristics of dual-credit courses after the passage of HB 505. Figure 1.13 shows changes in key design features of dual-credit courses that we can capture in administrative records before and after the passage of HB 505. The results show that there has

been very little change in the characteristics of dual-credit courses since the passage of HB 505. Specifically, the percentage of dual-credit courses taught in a face-to-face format held relatively constant at a little more than 80%. The percentage of dual-credit courses taught on a college campus (as opposed to a high school campus) held constant at roughly 54%.

Figure 1.13. Delivery of Dual-Credit Courses Among Dual-Credit Participants Before and After HB 505 (2012 –17; n = 1,868,920)

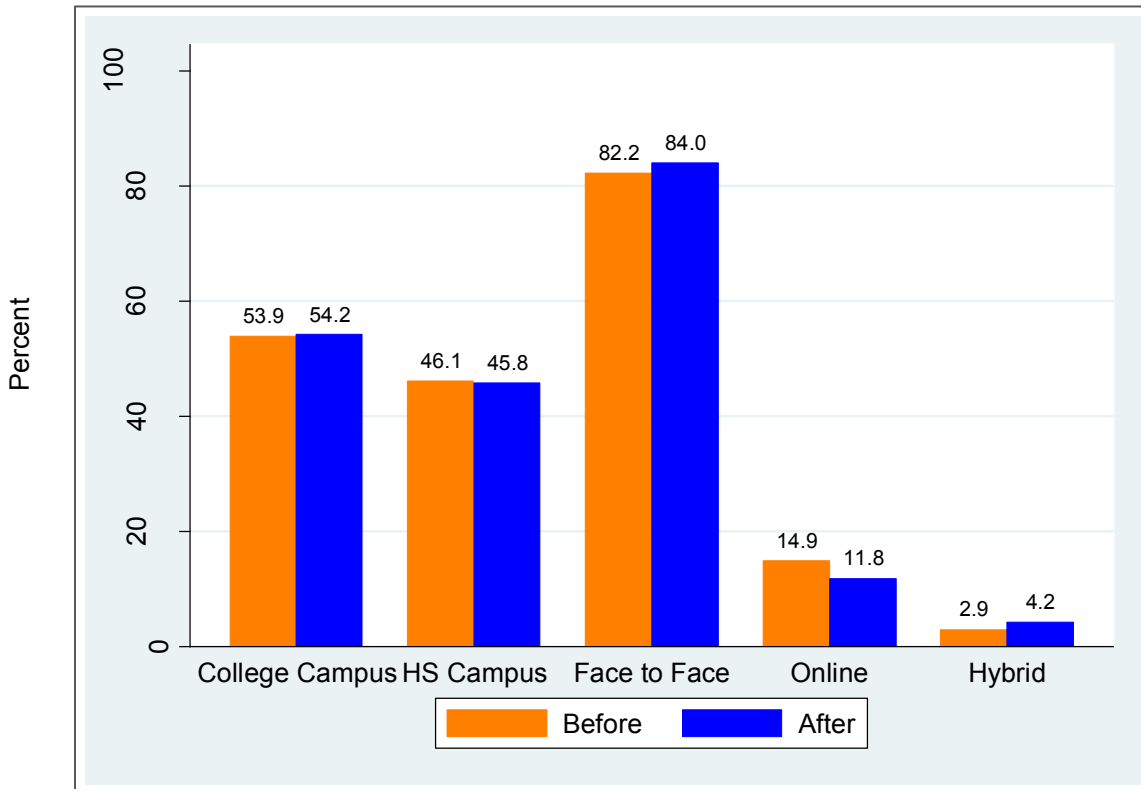
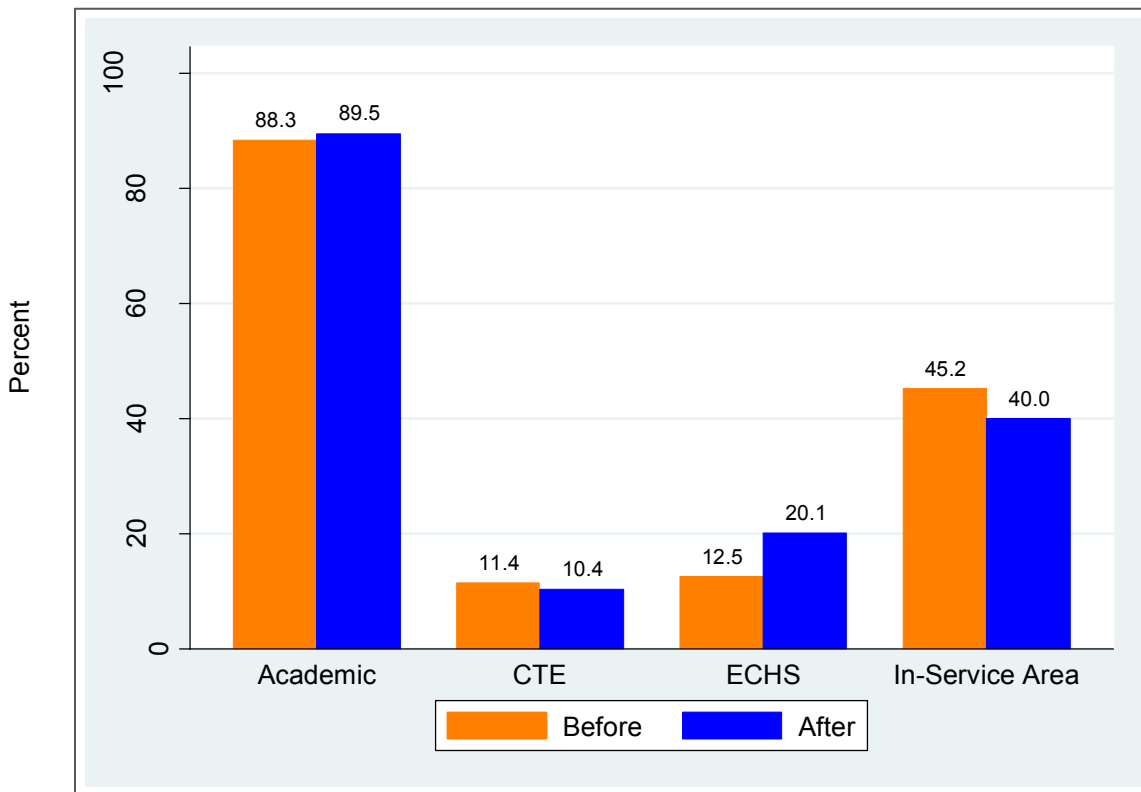


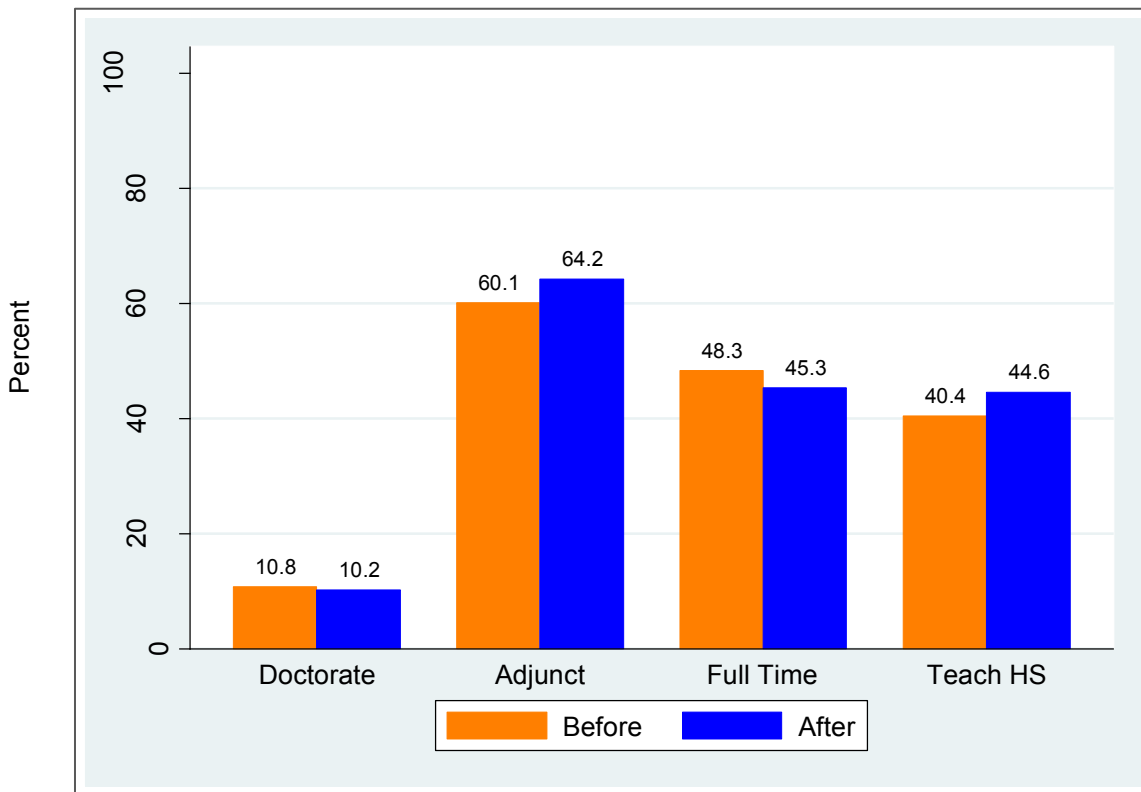
Figure 1.14 shows trends in other course features before and after HB 505. The share of courses that were academic (versus career and technical education [CTE]) held relatively stable at just under 90% (just over 10%). However, the share of courses delivered via an ECHS rose considerably from 12.5% before to 20.1% after HB 505. Finally, given that HB 505 loosened restrictions that required institutions to seek preapproval to develop dual-credit partnerships with high schools outside of their service area, we were interested in whether there was an increase in dual-credit courses delivered to students whose high school was not within the service area of the college. Figure 1.14 shows that the share of dual-credit courses delivered to a high school partner within the service area of the college declined from 45% to 40% since HB 505.

Figure 1.14. Type of Dual-Credit Courses Among Dual-Credit Participants (2012–17; n = 1,868,920)



We also examined whether the characteristics of faculty teaching dual-credit courses changed since HB 505. Figure 1.15 demonstrates that the share of dual-credit courses taught by adjunct instructors increased from 60.1% to 64.2% since the passage of HB 505. The share of dual-credit courses taught by high school teachers also increased from 40.4% to 44.6%. The share of dual-credit courses taught by an instructor with a doctorate held relatively stable at a little more than 10%.

Figure 1.15. Faculty Characteristics of Dual-Credit Courses at Two-Year Colleges (2012–17; $n = 1,268,365$)



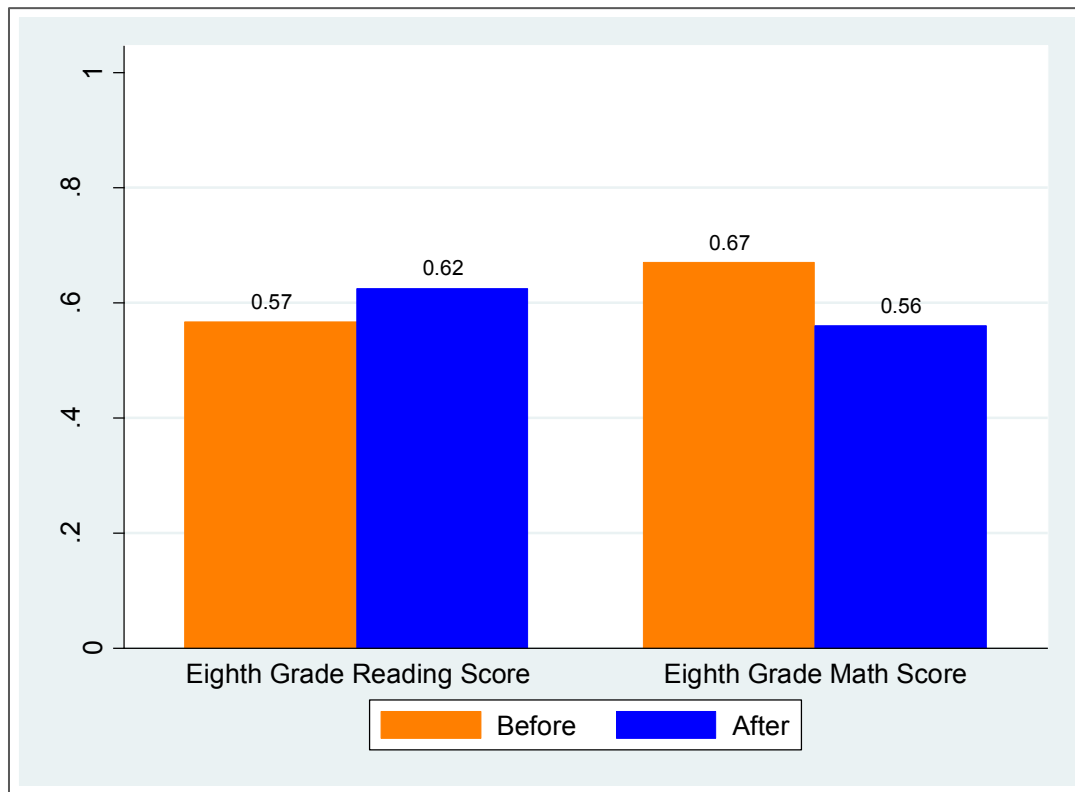
Changes in Academic Preparation of Dual-Credit Participants

Little Evidence That Overall Academic Preparation of Dual-Credit Participants Systematically Changed Since HB 505

Given that HB 505 allowed 9th and 10th graders to enroll in dual-credit courses and prevented the state from limiting the number of dual-credit courses that students could enroll in, some stakeholders voiced concerns that this might lead to an increase in the number of underprepared students taking dual-credit courses in high school. To assess this concern, we analyzed trends in academic preparation of dual-credit participants before and after the passage of HB 505. Figure 1.16 shows the average score on the 8th grade statewide assessment (the TAKS and STAAR) in both reading and mathematics among dual-credit participants before and after the passage of HB 505. Here, the scores were centered around the mean test score among all Texas public school eighth grade test takers, which is set at zero. Thus, a one-point increase represents a test score that is a full standard deviation above the mean. Figure 1.16 shows that before and after the passage of HB 505, dual-credit participants scored above the

average on eighth grade mathematics and reading standardized tests, which suggests that they are more academically prepared than the average eighth grade student. Examining changes after Texas loosened restrictions around dual-credit enrollment, our results show that, while the average eighth grade reading test scores of dual-credit participants marginally increased from 0.57 to 0.62 standard deviations above the mean, the average TAKS and STAAR mathematics score also slightly decreased from 0.67 to 0.56 standard deviations above the mean. These results provide little evidence that the academic preparation of dual-credit participants changed in a systematic way since the passage of HB 505.

Figure 1.16. Average Score on the Eighth-Grade Standardized State Assessment (TAKS and STAAR Examinations) Among Dual-Credit Participants (2012–17; $n = 620,716$)

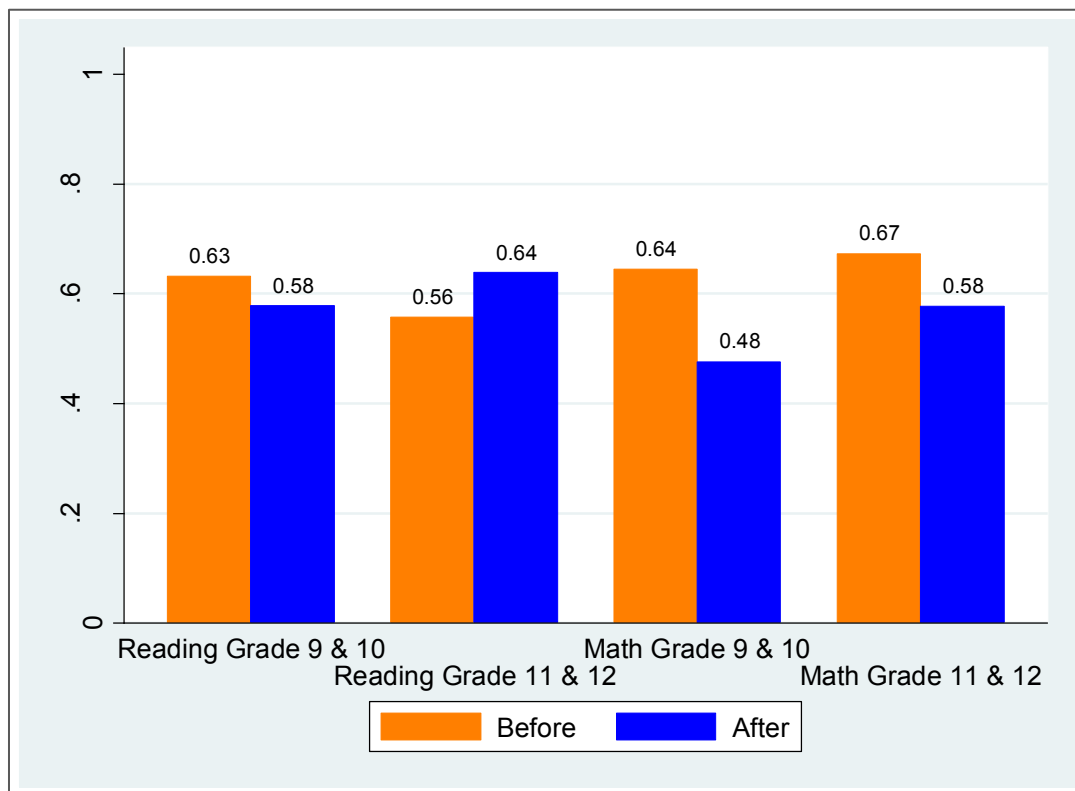


Academic Preparation of Ninth and 10th Grade Dual-Credit Participants Has Declined Since HB 505

HB 505 also prohibits the state from implementing rules that prevent ninth and 10th graders from enrolling in dual-credit education, so we investigated the extent to which the academic preparation of ninth and 10th graders has shifted given that younger students can now enroll in dual-credit coursework. Figure 1.17 breaks the data presented in Figure 1.16 out by grade. Akin

to results presented in Figure 1.16, results show that dual-credit participants across all grades scored about half a standard deviation above the average on the state’s standardized tests in eighth grade reading and mathematics, which shows that dual-credit students are academically superior students. However, results also show that the reading and mathematics test scores of ninth and 10th graders participating in dual-credit declined after the passage of HB 505. Notably, the typical ninth and 10th grade dual-credit student had a mathematics test score that was 0.64 standard deviations above the average before HB 505, but just 0.48 standard deviations above the average after HB 505. Results show a similar decline in reading, as the mean reading test score for ninth and 10th graders declined from 0.63 to 0.58 standard deviations above the mean after HB 505 passed. Although these results show that freshmen and sophomores who took dual credit before HB 505 were more academically prepared than those who took dual credit after HB 505, it is nevertheless important to note that students pre- and post-HB 505 scored significantly higher than the statewide average in both subjects.

Figure 1.17. Average Score on the Eighth-Grade Standardized State Assessment (TAKS and STAAR Examinations) Among Dual-Credit Participants by Grade (2012–17; $n = 620,716$)

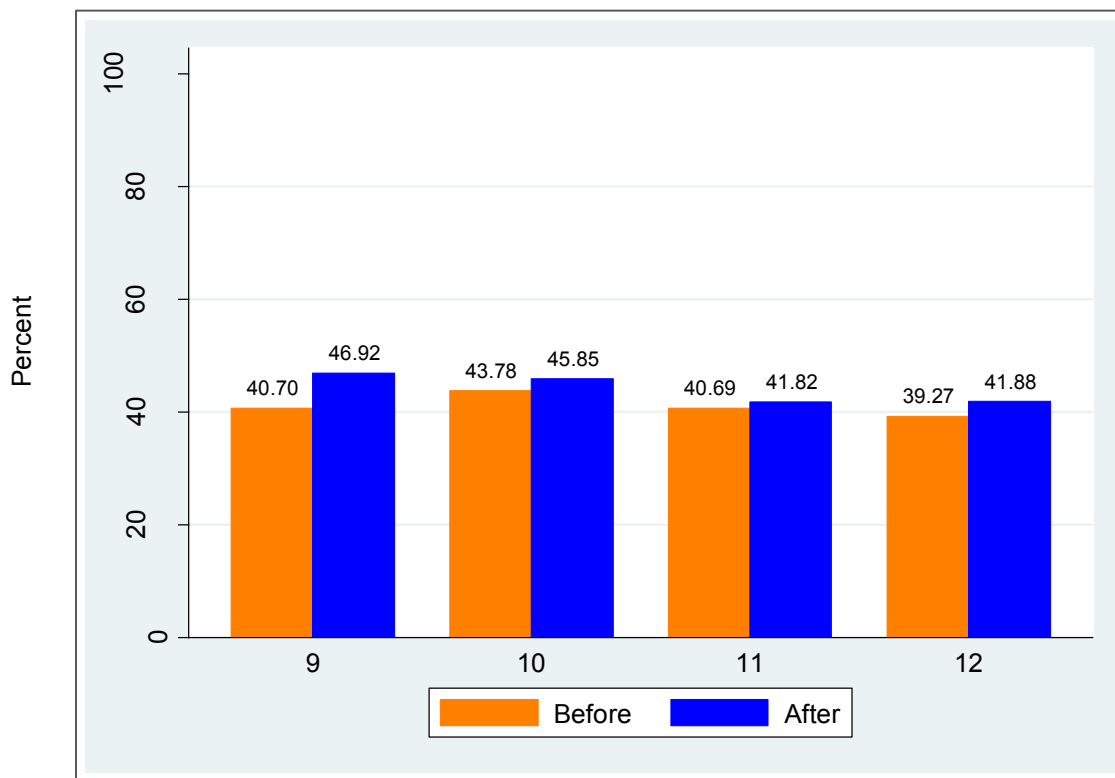


Changes in Dual-Credit Course Performance

Slightly Higher Grades in Dual-Credit Courses Since HB 505, Particularly for Ninth Graders

Given the decline in mathematics and reading test scores of ninth and 10th grade dual-credit participants since the passage of HB 505, one might be concerned that these less prepared students would have lower success rates in their dual-credit courses. To assess these concerns, Figure 1.18 shows the share of dual-credit participants receiving an A in their dual-credit course by grade. The results demonstrate that course grades increased slightly after HB 505 for all groups, but particularly for ninth graders. Prior to HB 505, about 40.2% of dual-credit course grades overall were As and that number increased to 42.5% after HB 505. Among ninth grade dual-credit participants, the share of course grades that were As increased from 40.7% to 46.9% since HB 505. This suggests that as less prepared ninth and 10th grade students have begun taking dual-credit courses since HB 505, instructors may have reduced course standards to keep success rates up, rather than letting pass rates decline as we had initially hypothesized.

Figure 1.18. Share of Dual-Credit Course Grades That Were As by Grade (2012–17; $n = 1,868,920$)



Higher Grades in College Algebra (Math 1314/1414) and English Composition I (English 1301) Since HB 505

To further assess trends in dual-credit course grades since the passage of HB 505, we looked at the distribution of course grades in two common dual-credit courses: College Algebra (Math 1314/1414) and English Composition I (English 1301). Figures 1.19 and 1.20 show the distribution of course grades in those subjects before and after the passage of HB 505. The results show that in both courses, the grade distribution shifted significantly upward, with more As and fewer Bs or lower. For example, the share of course grades that were As in Math 1314/1414 increased from 37.5% to 40.1% after HB 505, with grades that were Bs and lower correspondingly decreasing. A Kolmogorov-Smirnov test of distribution equality confirmed that this upward shift in the dual-credit course grade distribution for both courses was statistically significant. The fact that HB 505 lessened restrictions around access to dual-credit courses suggests that these patterns are more consistent with an overall pattern of grade inflation in college courses, as opposed to an improvement in actual course performance after HB 505.

Figure 1.19. Distribution of Dual-Credit Course Grades in College Algebra (Math 1314/1414) (2012–17; $n = 87,853$)

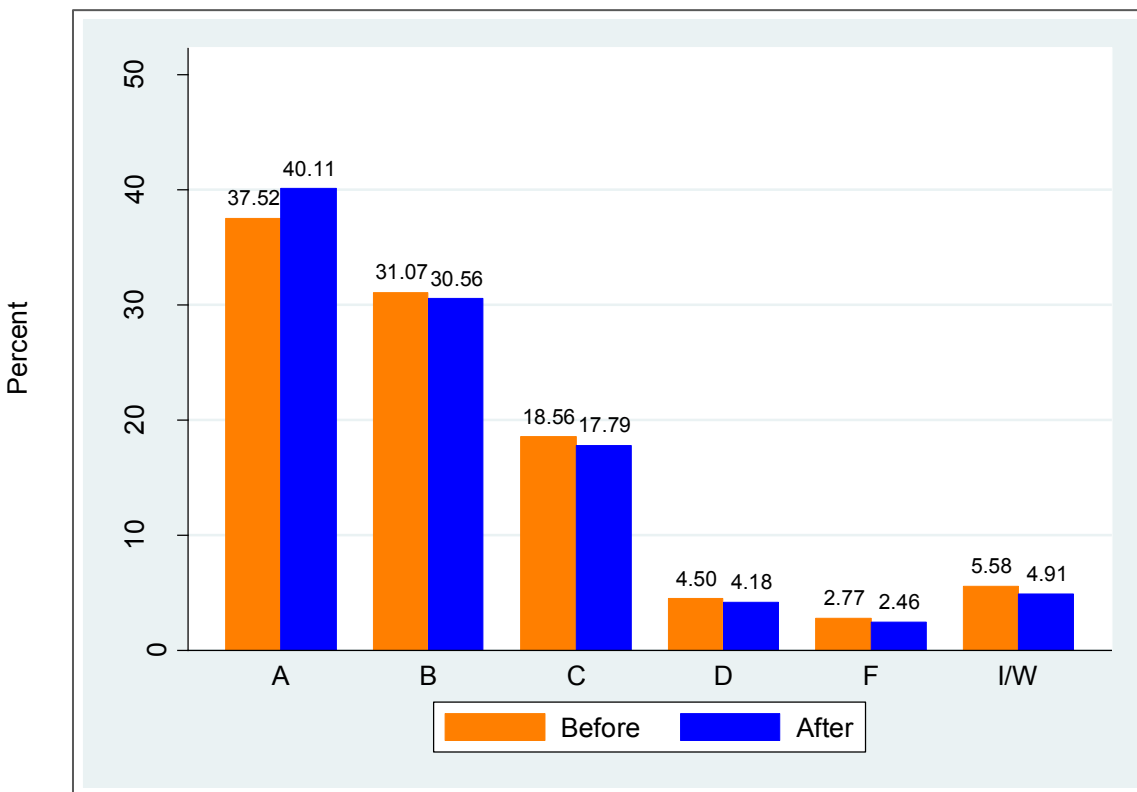
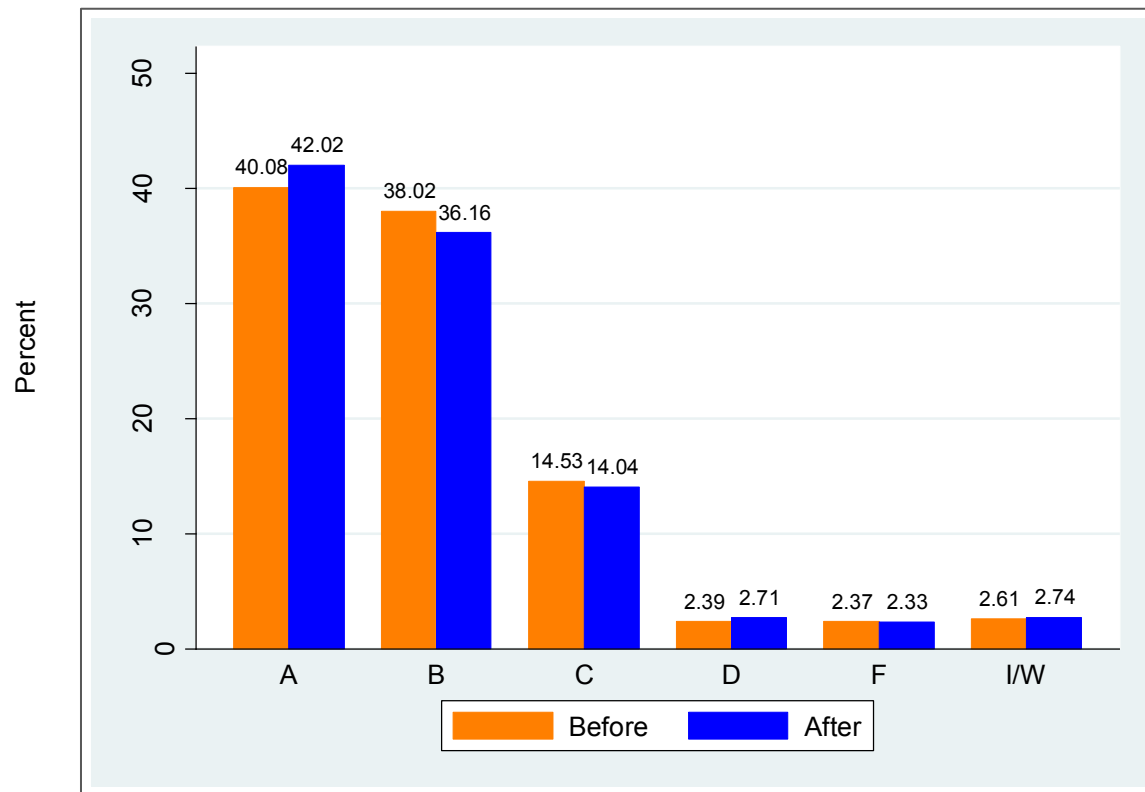


Figure 1.20. Distribution of Dual-Credit Course Grades in English Composition I (English 1301) (2012–17; n = 192,174)



Causal Impact Study

Approach to Question 3

In Phase I, RAND found that prior to HB 505, students who participated in dual-credit outperformed students who did not. Results from Phase I showed that dual-credit students had higher grades in dual-credit courses in the same subject as their nondual-credit peers and higher grades in follow-on courses in the same subject. Dual-credit students also had higher college enrollment rates after they graduated from high school, particularly at four-year colleges, and were significantly more likely to persist in and complete college. Moreover, dual-credit students took, on average, half an academic year less to complete a four-year degree, yet completed their degrees with roughly the same number of SCH as students who did not take a dual-credit course, which suggests that dual-credit students, like their counterparts, equally suffer from the problem of excess credit hours

Although the findings from Phase I suggest that dual-credit education may usher in more success for students, they also demonstrated that students who took dual-credit courses were less likely than nonparticipants to be underrepresented minorities or eligible for free or reduced-price lunch and more likely to be considered gifted and talented—all factors that are generally positively related to academic outcomes. Taken together, these results raise the question of whether dual-credit participants would have performed just as well even if they had not participated in dual-credit education programs because they enter dual-credit with above average academic skills. Based on the descriptive analysis conducted in Phase I, RAND could not determine the extent to which the benefits experienced by dual-credit participants were directly attributable to their participation in dual-credit education or to other factors such as their level of academic preparation or motivation to succeed.

To isolate the impact of dual-credit education on student outcomes, we designed a quasi-experimental approach that takes advantage of changes in the timing and the rate of students participating in dual-credit education programs across high schools in Texas. By employing this advanced approach, or what economists call an *instrumental variable identification strategy*, we are able to compare outcomes for similar students, the only difference being that one group of students had more access to and enrolled in dual-credit education whereas the other group of students did not have the same access and did not enroll in dual credit. In our estimation, we also control directly for a number of student characteristics, including race/ethnicity, free or reduced-price lunch eligibility, eighth grade standardized test scores, and differences across high schools and cohort years. For the sake of continuity, we focus on the same set of outcomes from Phase I, namely, college enrollment and completion, time-to-degree, and SCH-to-degree, and add new ones, namely, high school graduation, and completion of a workforce certificate. For this analysis, we examine outcomes for juniors enrolled in Texas public high schools starting in 2001 and ending in 2016. We describe our econometric approach in detail in Appendix A.

It is important to note that our causal impact study focuses only on the impact of traditional academic dual-credit courses that were delivered prior to HB 505. As such, we are unable to speak to the impact of ECHSs, dual-credit CTE, or the impact of dual credit since HB 505. Although ECHS is a large and growing form of dual-credit in Texas and nationally, our study design, which leveraged differences over time and across schools in the share of students participating in dual-credit, did not allow us to assess the impact of dual-credit courses delivered by ECHSs. This is because, by design, all students within an ECHS take dual-credit courses. As we have noted previously, while prior experimental research has documented the positive effects of ECHS participation on a range of student outcomes, there is less rigorous evidence on the impact of general dual-credit programs, so we do not see this as a major

limitation of our study. Similarly, although CTE dual-credit is promising, Phase I documented that it accounted for just 7% of all SCH of dual credit delivered in Texas from 2012–15, so the overwhelming majority of dual-credit courses delivered in Texas are academic. Finally, because HB 505 was just passed in 2015, there is an insufficient number of junior cohorts that experienced dual-credit since HB 505 to observe postsecondary outcomes. Each of these topics is worthy of future research.

Dual-Credit Participation Is Strongly Associated With Positive Student Outcomes

In Phase I, RAND’s analysis was based on cohorts of Texas public high school graduates, whereas ours is based on cohorts of Texas public high school juniors. To document that our data exhibits similar patterns as those reported by RAND in Phase I, Table 1.3 presents data on the outcomes of Texas public high school juniors by dual-credit participation status. The results confirm those from Phase I and demonstrate that dual-credit participants had much better outcomes on average than did nonparticipants. In particular, while 80.3% of high school juniors who did not take dual-credit graduated from high school within two academic years, the corresponding figure for dual-credit participants was 94.5%. With respect to college enrollment, 48.5% of nonparticipants enrolled in any postsecondary program three years after their junior year, whereas the corresponding figure for dual-credit participants was 79.4%. With respect to college completion, 21.6% of nonparticipants had completed any postsecondary credential within 10 years of their junior year of high school, whereas the corresponding figure for dual-credit participants was 54.6%.

Table 1.3. Mean Student Outcomes by Dual-Credit Participation (2001–16)

Outcome	No Dual Credit	Dual Credit	Cohorts
Graduate high school	80.3%	94.5%	2001–16
Enroll two-year	29.8%	31.9%	2001–15
Enroll four-year	20.3%	51.7%	2001–15
Enroll four- or two-year	48.5%	79.4%	2001–15
Complete two-year	14.3%	26.3%	2001–13
Complete four-year	19.7%	51.4%	2001–08
Complete two- or four-year	21.6%	54.6%	2001–08

Positive Association Between Dual-Credit Participation and High School Completion Is Mostly Driven by Selection

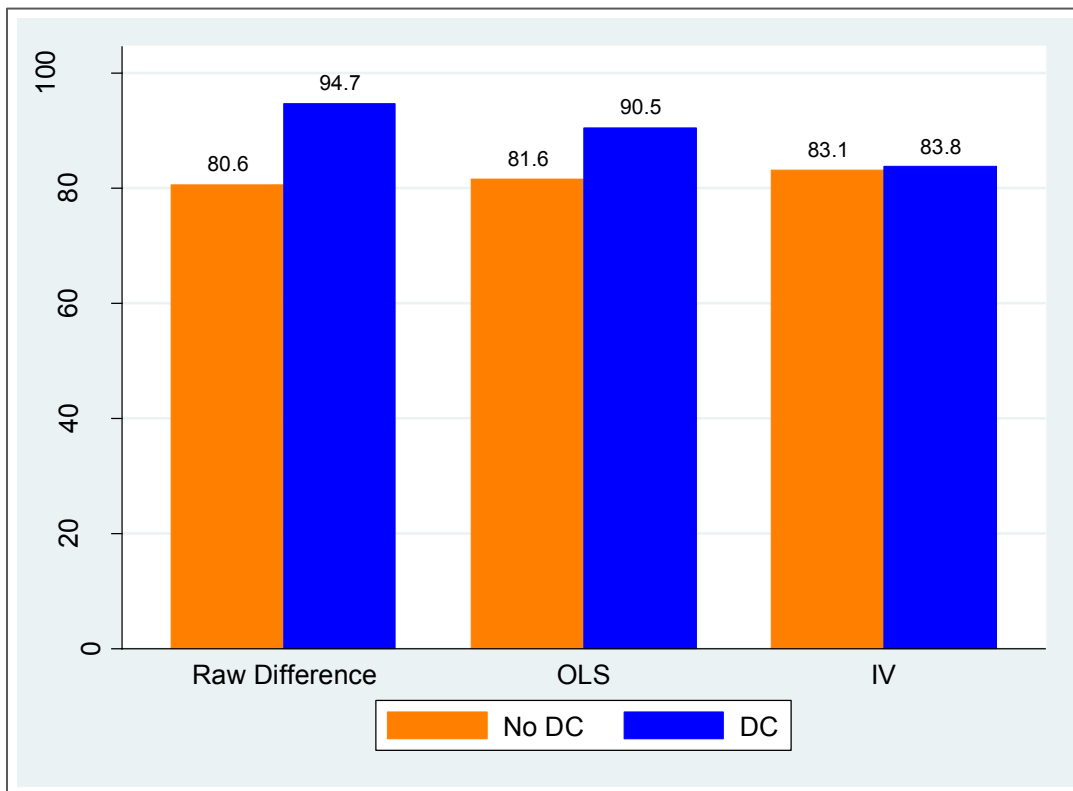
Although the results presented in Table 1.3 suggest that students respond positively to dual-credit education, they do not provide proof that dual-credit participation directly improves student outcomes. After all, we know that dual-credit students are more academically prepared than nondual-credit students, so we would expect them to have better outcomes even if they had never enrolled in dual-credit education. To improve the analysis presented previously, we directly compare outcomes for dual-credit and nondual-credit students who are similar across a range of dimensions. We accomplish this by running simple Ordinary Least Squares (OLS) regression models that control directly for a student's level of academic preparation, race/ethnicity, and gender, among other dimensions. Although these models match students on what economists call observable characteristics, or factors that can be easily documented with quantitative data, they do not include other dimensions students may differ on, including motivation, self-efficacy, or desire to go to college. To account for these dimensions in our analysis, we employed our Instrumental Variable (IV) model that is described in detail in Appendix A.

Figure 1.21 presents results estimating the impact of dual-credit participation on high school degree completion. The first set of columns shows the raw, unadjusted high school completion rate for dual-credit participants and nonparticipants. The second set of columns presents results from our OLS models that adjust differences in high school completion rates by dual-credit participation status based on differences in observable student characteristics including race/ethnicity, free or reduced-price lunch status, and standardized test scores in eighth grade reading and mathematics. The models also include a high school fixed effect, which accounts for differences in the types of high schools attended by dual-credit participants and nonparticipants and a cohort fixed effect, which accounts for differences across junior cohorts. The third set of columns, present the results from our IV models, which account for unobserved factors like motivation, self-efficacy, and desire to go to college, and can be interpreted as the causal impact of dual-credit participation on high school completion. Results presented in Figure 1.21 clearly indicate that models that do not control for the characteristics of students who enroll in dual credit produce biased estimates of the impact of dual-credit education programs. In column 1, we see that the high school completion rate among dual-credit participants was 94.7%, noticeably higher than nonparticipants at 80.6%: a difference of 14.1 percentage points. When we control for factors like race, free or reduced-price lunch eligibility and prior academic preparation, the estimate of the impact of dual-credit education on student decreases, suggesting that observable characteristics account for some, but not all, of the

difference in high school completion rates among dual-credit participants and nonparticipants. Specifically, although the adjusted high school completion rate among dual-credit participants was 90.5%, the corresponding rate among nonparticipants was 81.6%, a difference of 8.9 percentage points.

Finally, the third set of columns present results from our IV model, which account for unobserved factors and can be interpreted as the causal impact of dual-credit participation on high school completion. At first glance, we notice that estimates presented in the third column are significantly smaller than those in the first and second set, which suggests that most of the observed differences in high school completion by dual-credit participation are driven by selection on unobservable variables that OLS and descriptive statistics are unable to account for. Although the fully adjusted high school completion rate among dual-credit participants was 83.8%, the corresponding rate among nonparticipants was 83.1%. The difference of 0.7 percentage points is not statistically different from zero in this case. We thus find no evidence that dual-credit participation increases high school completion.

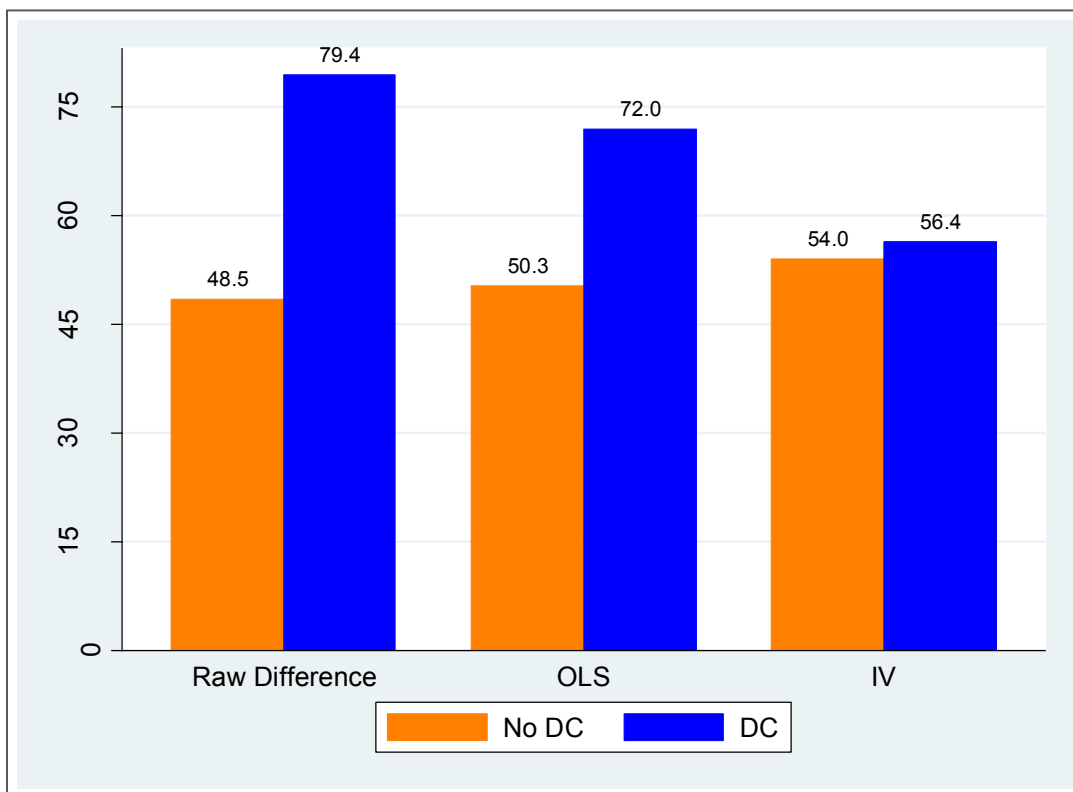
Figure 1.21. Causal Impact of Dual-Credit Participation on High School Completion (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–16; $n = 3,411,286$)



Modest Positive Impact of Dual-Credit Participation on College Enrollment

Figure 1.22 replicates Figure 1.21 using college enrollment as the outcome. Results suggest that most, but not all, of the difference in college enrollment rates among dual-credit participants and nonparticipants is driven by self-selection into dual-credit programs or, in other words, the characteristics of students who enroll in dual-credit programs. The raw unadjusted difference in college enrollment rates, presented in the leftmost columns, show that dual-credit participants were 30.9 percentage points more likely to enroll in a two- or four-year college within two years after their junior year of high school. However, the rightmost columns demonstrate that once we fully account for observable and unobservable characteristics of students who enroll in dual-credit education into the model, this difference drops to just 2.4 percentage points. Although this represents a large and meaningful increase in college enrollment that is attributable to dual-credit participation, it is much more modest than what has been found in past descriptive research, including the results that were presented in the Interim Report.

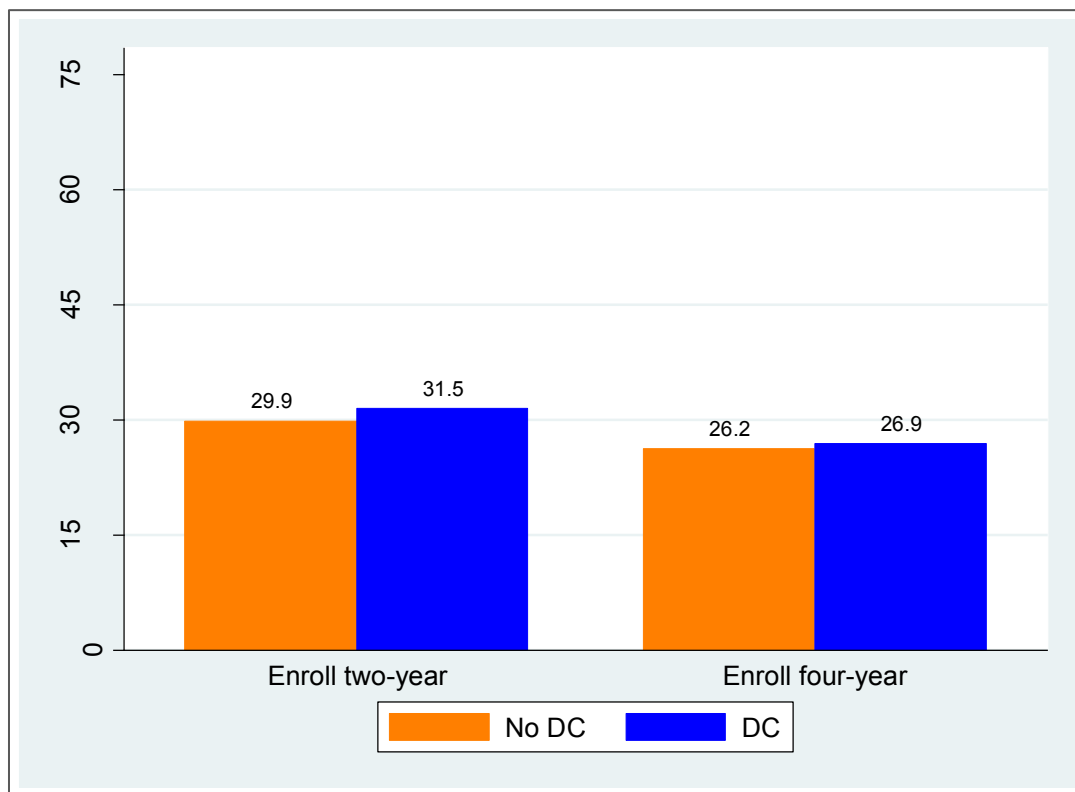
Figure 1.22. Causal Impact of Dual-Credit Participation on College Enrollment (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–15; $n = 3,223,430$)



Impact of Dual-Credit Participation on College Enrollment Driven by Enrollment at Two-Year Colleges

We wanted to assess the extent to which the increase in college enrollment attributable to dual-credit participation channels through two- versus four-year colleges, so we ran our favored IV model separately for enrollment in a two-year college and enrollment in a four-year university. Results from both models are presented in Figure 1.23 below. The leftmost set of columns shows the predicted enrollment rate at two-year colleges for dual-credit participants and nonparticipants. The rightmost set of columns replicates the analysis for four-year universities. Results demonstrate that participation in dual-credit education increased the probability of enrolling at a two-year college by 1.6 percentage points, but we do not find a statistically significant impact on enrollment at four-year colleges. This suggests that the increase in college enrollment attributable to dual-credit participation primarily channels through two-year colleges.

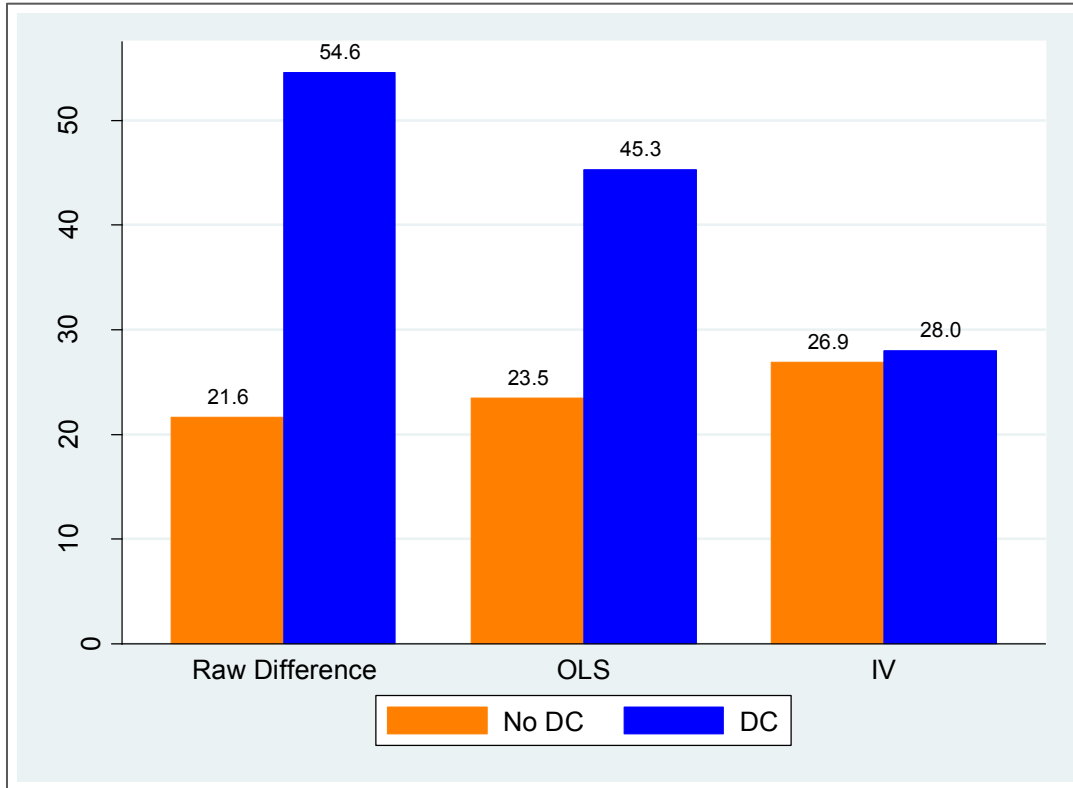
Figure 1.23. Causal Impact of Dual-Credit Participation on Two- Versus Four-Year College Enrollment (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–15; $n = 3,223,430$)



Modest Positive Impact of Dual-Credit Participation on College Completion

Figure 1.24 replicates Figure 1.21 using college completion as the outcome. Here, we define college completion as completing a four- or two-year degree or any certificate program at a public or private nonprofit college in Texas within 10 years of a student's junior year of high school. We use a 10-year follow-up window to ensure sufficient time for nondual-credit participants to catch up with participants and also because many students who start at two-year colleges take upward of eight years to complete a four-year degree and may never obtain a two-year degree along the way. The results suggest that most, but not all, of the difference in college completion rates among dual-credit participants and nonparticipants is driven by selection. The raw unadjusted difference in college completion rates, presented in the leftmost columns, show that dual-credit participants were 33.0 percentage points more likely to complete a college credential within 10 years after their junior year of high school. However, the rightmost columns demonstrate that once we fully adjust for selection into dual credit, this difference drops to an insignificant 1.1 percentage points. Although this represents a meaningful increase in college completion rates that is attributable to dual-credit participation, it is much more modest than what has been found in past descriptive research, including the results that were presented in the Interim Report.

Figure 1.24. Causal Impact of Dual-Credit Participation on College Completion (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–08; $n = 1,542,629$)

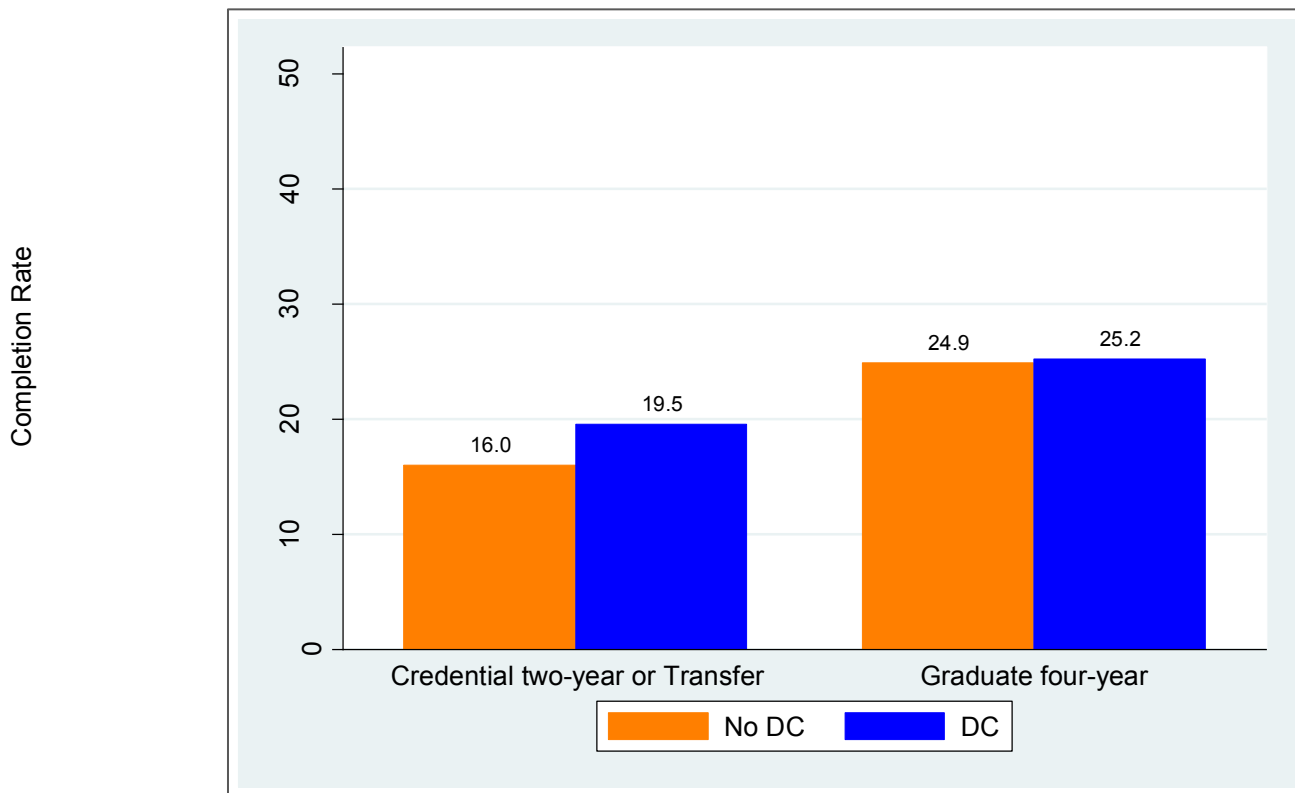


Slightly Larger Impact of Dual-Credit Participation on Upward Transfer or Completion of College Credential from a Community College and Completion of a Four-Year Degree

Figure 1.25 presents estimates measuring the impact of dual-credit education on completing a college credential from a community college and also on a four-year degree. To measure college completion from a community college, we track students five years after their junior year and consider them as “completers” if they obtain a two-year degree or any certificate or if they transfer up to any public nonprofit college in Texas during that time frame. To measure college completion from a four-year university, we examine whether they completed at a minimum a bachelor’s degree within 10 years of initially enrolling as a high school junior. Figure 1.25 presents our results. The leftmost set of columns shows the predicted completion rate at two-year colleges for dual-credit participants and nonparticipants. The rightmost set of columns replicates the analysis for four-year colleges. The results demonstrate that dual-credit participation increases the completion rate at two-year colleges by 3.5 percentage points. In contrast, we find that dual-credit participation increases the probability of completing a four-

year degree by a more modest 0.3 percentage points. This suggests that the increase in college completion attributable to dual-credit participation primarily channels through two-year colleges, but dual-credit participation does modestly increase the probability of completing a four-year degree.

Figure 1.25. Causal Impact of Dual-Credit Participation on Two- Versus Four-Year College Completion (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–13; $n = 2,754,765$)

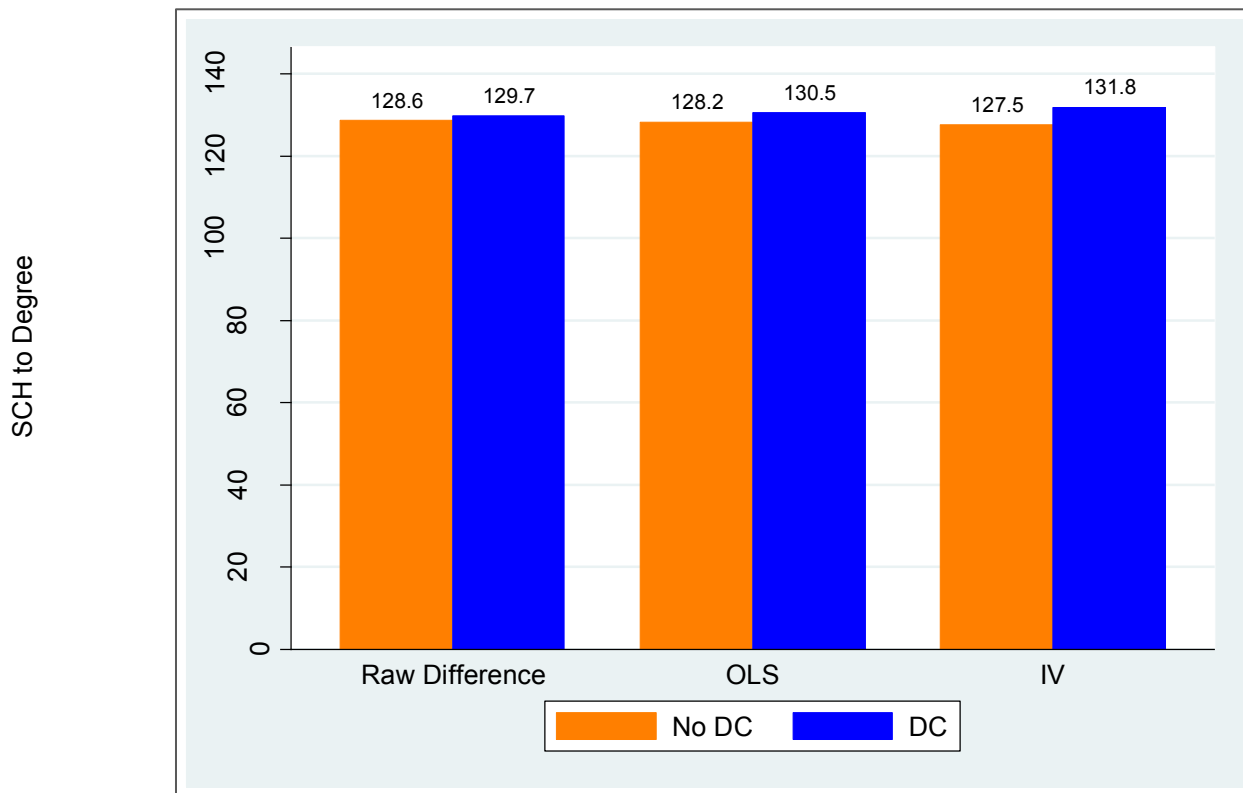


Dual-Credit Participation Slightly Increases SCH-to-Degree

Figure 1.26 replicates Figure 1.21 using SCH-to-degree as the outcome. Here, we restrict our sample to students who completed a four-year degree within 10 years after their junior year of high school and count the total number of SCHs that students earned, including those earned as dual-credit in high school, before obtaining their degree. The results in Figure 1.26 suggest that the difference in SCH-to-degree among dual-credit participants and nonparticipants is not as sensitive to selection patterns as the outcomes we have examined so far. The raw unadjusted difference in SCH-to-degree, presented in the leftmost (blue) columns, show that dual-credit participants completed their degrees with an average of 129.7 SCH, while nonparticipants

completed their degrees with an average of 128.6 SCH. The difference is a modest 1.1 SCH. The rightmost columns demonstrate that once we fully adjust for selection into dual credit, this difference increases to 4.3 SCH. Although this is a modest increase in SCH-to-degree, it is important to note that SCH-to-degree among both dual-credit participants and nonparticipants is quite high and well above the 120 SCH required under most four-year degree plans.

Figure 1.26. Causal Impact of Dual-Credit Participation on SCH-to-Degree (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade Who Graduated From a Four-Year College: 2001–08; $n = 384,658$)

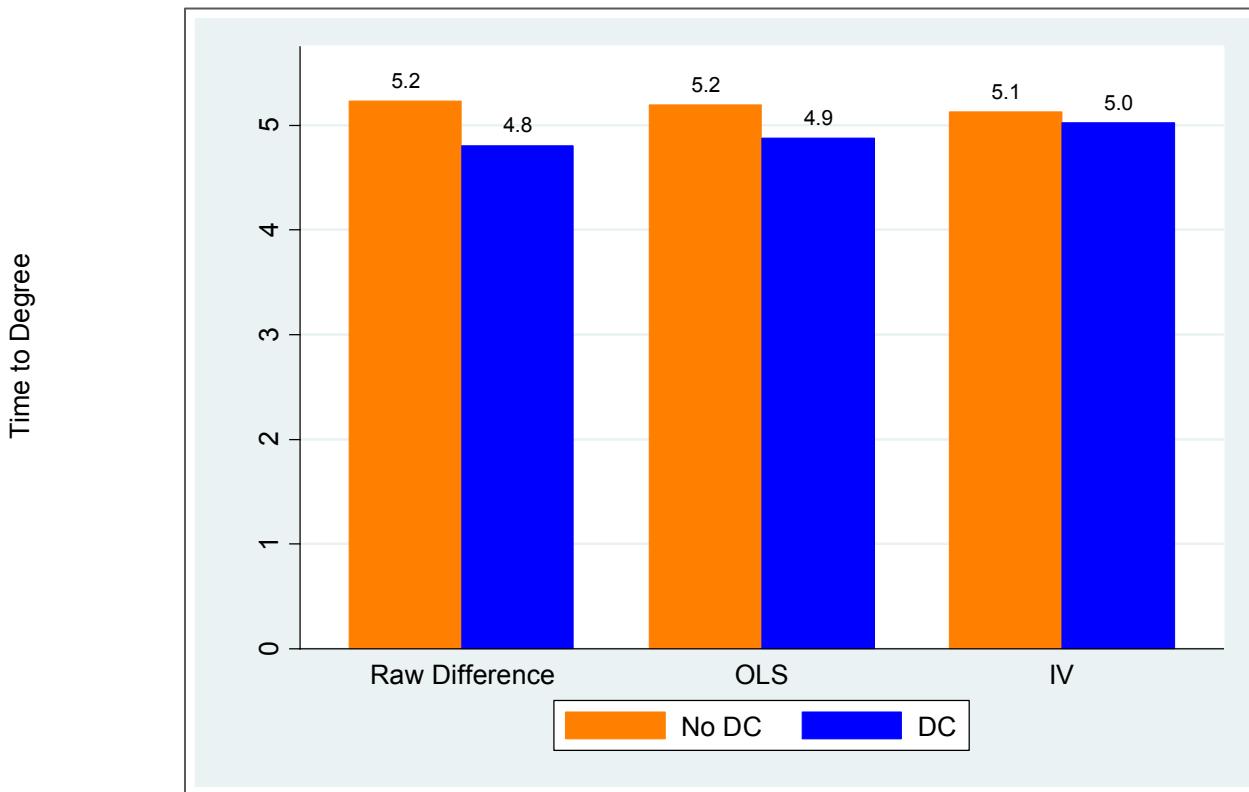


Dual-Credit Participation Slightly Reduces Time-to-Degree

Figure 1.27 replicates Figure 1.21 using time-to-degree as the outcome. Like those for SCH-to-degree, the results in Figure 1.27 suggest that the difference in time-to-degree among dual-credit participants and nonparticipants is not as sensitive to selection patterns as other outcomes. The raw unadjusted difference in time-to-degree, presented in the leftmost columns, show that dual-credit participants completed their degrees in an average of 5.2 years after high school, while nonparticipants completed their degrees in an average of 4.8 years. The difference is a modest 0.4 years. The rightmost columns demonstrate that once we fully adjust

for selection into dual credit, this difference decreases to 0.10 years, or approximately five fewer weeks or the length of one summer term.

Figure 1.27. Causal Impact of Dual-Credit Participation on Time-to-Degree (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade Who Graduated From a Four-Year College: 2001–08; $n = 375,715$)



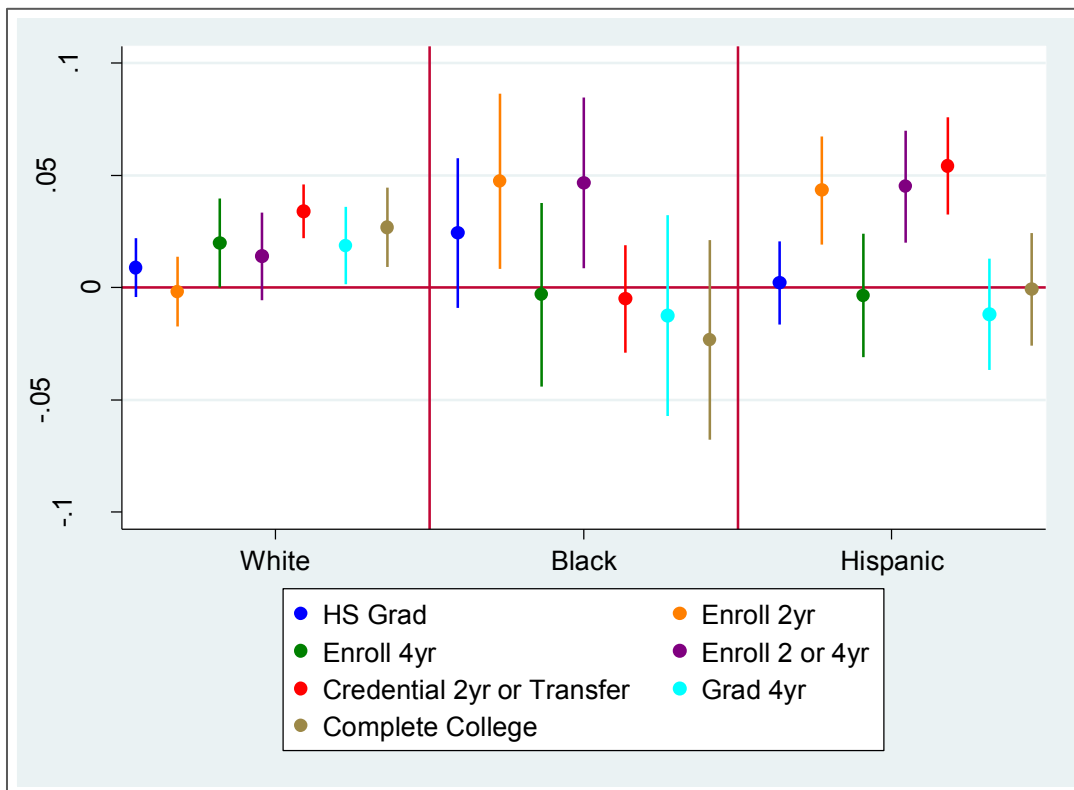
Larger Impact of Dual-Credit Participation on Two-Year College Enrollment but No Impact on Degree Completion for Underrepresented Minorities

Figure 1.28 shows results that assess the extent to which all students benefit from participating in dual-credit education. The leftmost section shows our estimates for the causal impact of dual-credit participation on high school completion, college enrollment (overall, two year, and four year) and degree completion for White students. The center section presents these results for Black students, while the rightmost section presents the results for Hispanic students. Here, the dot represents our estimate of the causal effect of dual-credit participation on the outcome, while the line above and below it represents the 95% confidence interval, which is a range of statistically plausible estimates. When the line crosses zero on the figure, we say that the estimate is not statistically distinguishable from zero, which means that we are unable to

say with a reasonable degree of certainty that there is an effect of dual-credit participation on the outcome. The results suggest that dual-credit participation modestly increased enrollment at four-year colleges for White students (by 2.0 percentage points), but significantly increases enrollment at two-year colleges for Black (by 4.7 percentage points) and Hispanic (by 4.3 percentage points) students. We do not find a statistically significant effect of dual-credit participation on two-year college enrollment among White students or on four-year college enrollment among underrepresented minorities.

The results for college completion suggest that dual-credit participation significantly increases completion by 2.7 percentage points among White students, with the increase channeling through both two- and four-year colleges. We do not find an increase in college completion at two- or four-year colleges among Black and Hispanic students.

Figure 1.28. Causal Impact of Dual-Credit Participation on Key Outcomes by Race/Ethnicity (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–08; $n = 1,542,068$)



Negative Impact of Dual-Credit Participation on Low Income Students That Is Largely Due to Lower Academic Preparation Among Low Income Students

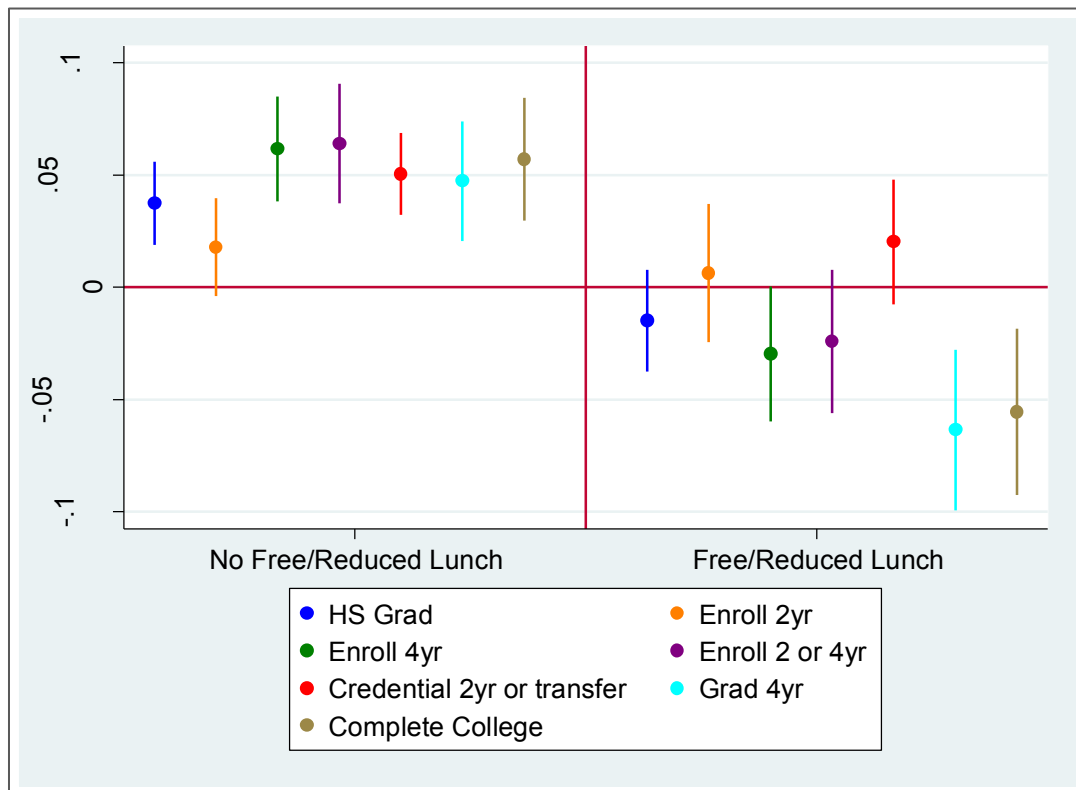
To assess the extent to which the impact of dual-credit participation varied by the student's economic status, we ran our IV model by whether the student was eligible for free or reduced-price lunch in high school. Results are presented in Figure 1.29. The rightmost section shows our estimates for the key outcomes we used in Figure 1.29 for students who were not eligible for free or reduced-price lunch, while the leftmost section show results for students who are eligible for free or reduced-price lunch. The results suggest that the effect of dual-credit participation varies considerably by the student's economic status, with large positive effects among those who are ineligible and large negative effects for most outcomes among those who are eligible. For example, we find that dual-credit participation increased college enrollment by 5.5 percentage points and college completion by 4.5 percentage points for students who are ineligible for free or reduced-price lunch. Conversely, participating in dual-credit education significantly decreases college enrollment by 3.2 percentage points and significantly decreases college completion by 6.7 percentage points for free or reduced-price lunch eligible students. It is worth noting that our estimate for the effect of taking a dual-credit course on completing a two-year degree or certificate or transferring upward to a four-year college within three years for free or reduced-price lunch eligible students is positive overall but not statistically significant.

To further probe these findings, we also estimated the effect of participating in dual credit for students who are free or reduced price lunch eligible and had eighth grade standardized test scores one standard deviation above the mean. We present these results in Appendix A. The results from this analysis suggest that the negative results for free and reduced price lunch eligible students were likely due to the fact that free and reduced price lunch eligible students were more likely than ineligible participants to have lower eighth grade standardized test scores that hindered their success in dual credit education courses. In particular, we find that free or reduced price lunch eligible students with above average standardized test scores largely benefited from participating in dual credit education, while those with average eighth grade standardized test scores did not.

Finally, it is also important to reiterate that our causal impact analysis does not include dual-credit courses delivered by ECHS. Thus, the negative findings for free and reduced price lunch eligible students with average eighth grade standardized test scores speak only to the impact of traditional dual credit education programs. Rigorous experimental studies that have included

some Texas ECHSs have documented the positive impact of ECHSs on a range of student outcomes for traditionally underrepresented students.

Figure 1.29. Causal Impact of Dual-Credit Participation on Key Outcomes by Free or Reduced-Price Lunch Eligibility (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–08; $n = 1,542,068$)



Larger Impact of Dual-Credit Participation on Four-Year College Enrollment and Degree Completion Among Better Academically Prepared Students

We also wanted to assess whether the impact of dual-credit participation varied by academic preparation, so we ran our IV model, interacting the main effect with a student’s normed score on the eighth grade TAKS and STAAR exam in mathematics and reading. The results are presented in Figure 1.30 and Figure 1.31. The left panel shows our estimates for the key outcomes for a student scoring at the statewide average on the TAKS or STAAR mathematics and reading standardized test, and the right panel shows results for a student with statewide mathematics and reading scores one standard deviation above the mean. The results indicate that students with better academic preparation benefit more from participating in dual credit. For example, we find that dual-credit participation increases college enrollment and completion

by 5.8 and 5.3 percentage points, respectively for students with standardized reading scores that were one standard deviation above the mean. While we find no evidence of an effect of dual-credit participation on college enrollment among students with mean standardized reading scores, we find a significant 3.2 percentage point reduction in college completion. A similar pattern holds for standardized mathematics scores. Interestingly, an opposite pattern holds when considering high school completion as the outcome. In particular, we find that dual-credit participation increases the high school completion rate by 1.8 percentage points among students with average standardized reading scores, but we find no evidence that dual-credit participation increases high school completion rates among students with standardized reading scores that are one standard deviation above the mean.

Figure 1.30. Causal Impact of Dual-Credit Participation on Key Outcomes by Eighth-Grade Reading TAKS and STAAR Scores (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–08; $n = 1,542,068$)

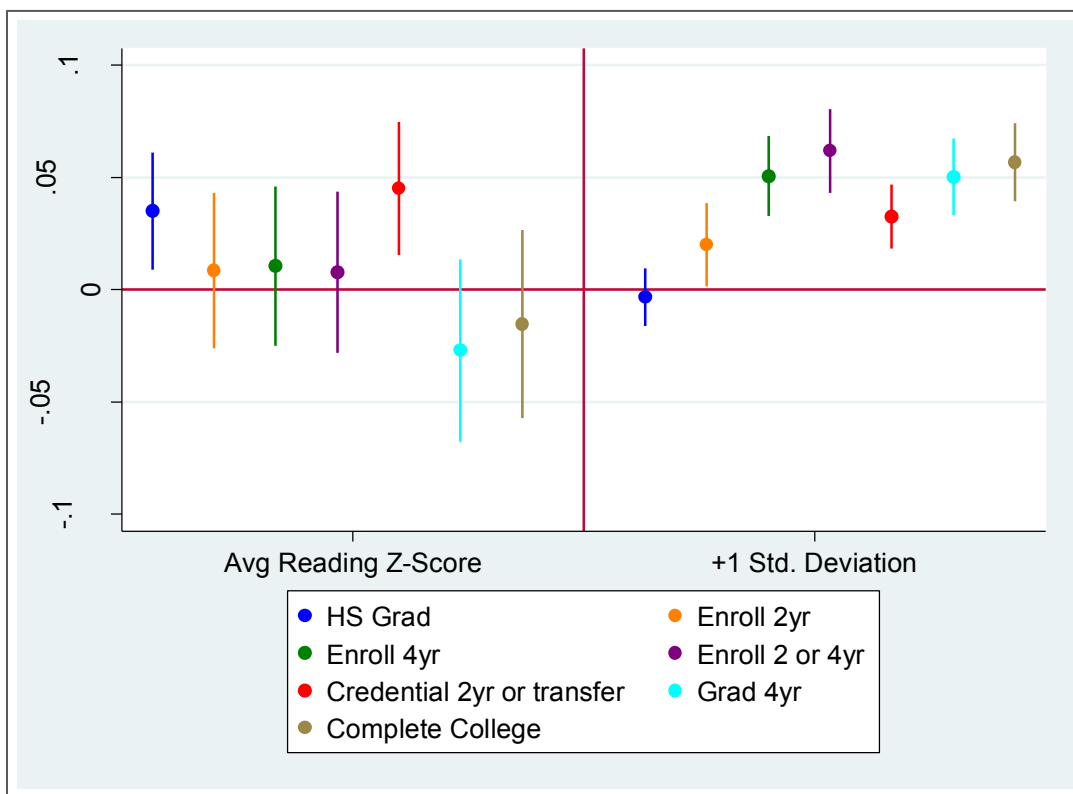
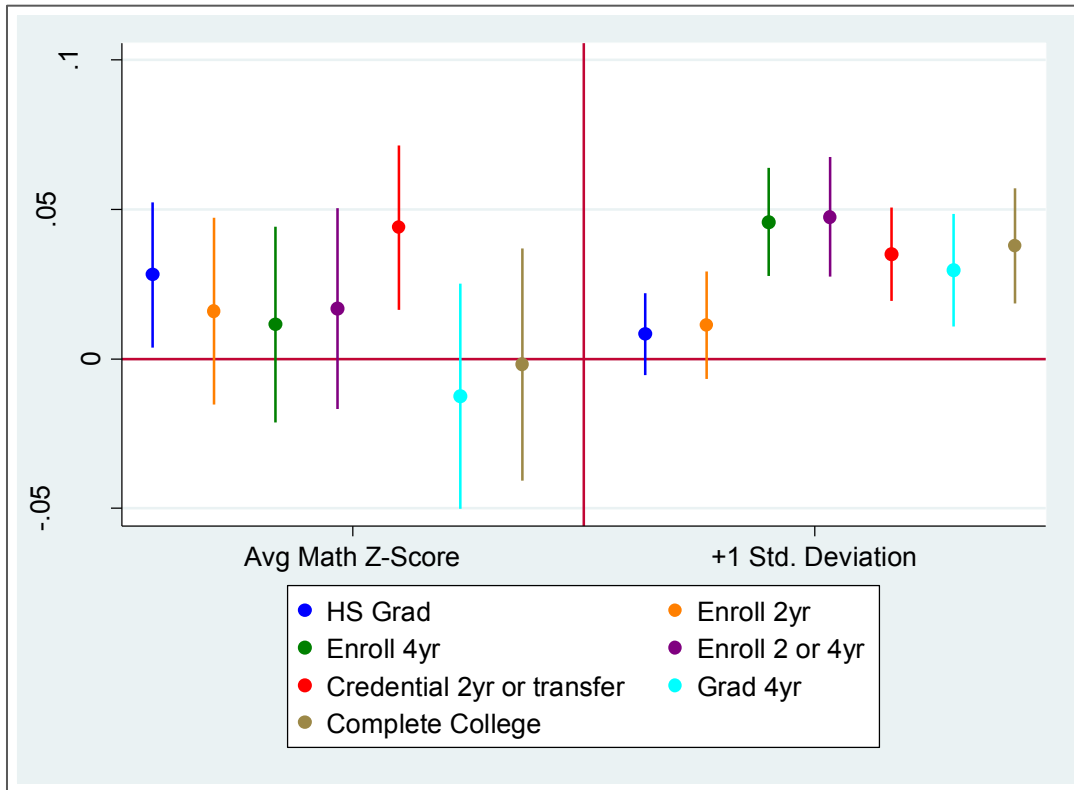


Figure 1.31. Causal Impact of Dual-Credit Participation on Key Outcomes by Eighth-Grade Mathematics TAKS and STAAR Scores (Student Cohorts of Juniors Enrolled in Dual-Credit Education in 11th and / or 12th Grade: 2001–08; $n = 1,542,068$)



Limitations

First, it is important to reiterate that the analyses used to address questions 1-2 are descriptive in nature, and we cannot make any causal claims based on the results. In particular, our analysis of patterns in dual-credit participation, success, and delivery before and after the passage of HB 505 was descriptive in nature. Importantly, there may be other factors aside from HB 505 that drove the changes reported.

Second, although our causal impact study provides strong evidence on the impact of dual-credit education on a wide range of academic outcomes, the study is limited in several ways. First, the scope of the study is limited to focus only on the impact of regular academic dual-credit courses that were delivered prior to HB 505. As such, we are unable to speak to the impact of ECHSs, CTE dual credit, or the causal impact of dual credit since HB 505. Although ECHS is a large and

growing form of dual credit in Texas and nationally, our study design, which leveraged differences over time and across schools in the share of students participating in dual credit, did not allow us to assess the impact of dual-credit courses delivered by ECHSs. This is because, by design, all students within an ECHS take dual-credit courses. However, while prior experimental research has documented the positive effects of ECHS participation on a range of student outcomes, there is less rigorous evidence on the impact of general dual-credit programs, so we do not see this as a major limitation of our study. Similarly, while CTE dual credit is a promising and growing intervention, Phase I documented that it accounted for just 7% of all SCH of dual credit delivered in Texas from 2012–15, so the overwhelming majority of dual-credit courses delivered in Texas are academic. Nevertheless, as described next, we are currently working to adapt our IV model to be able to identify the effect of CTE dual credit from that of academic dual credit and plan to incorporate those results into the final report. Finally, because HB 505 was just passed in 2015, an insufficient number of junior cohorts experienced dual credit since HB 505 to observe postsecondary outcomes.

Third, there are a number of ways in which the assumptions underlying the causal interpretation of our model may not hold. As described previously and in detail in the Appendix A, our econometric model essentially compares two students with similar characteristics, one who participated in dual credit because a large share of other students in his junior cohort did so and another who did not participate because a smaller share of students in his junior cohort did so. For this approach to be valid, we must believe that, conditional on the other variables included in the model, the share of other students in a student's junior cohort who participate in dual credit does not independently influence the student's academic outcomes. A primary concern relates to peer effects. If the dual-credit participation rate of one's peers is positively related to the academic preparation of those peers and having more academically prepared peers increases a student's academic outcomes, then the dual-credit participation rate of one's junior cohort would have a positive impact on the student's academic outcomes. To address this concern, we ran models that used the dual-credit participation rate of the prior junior cohort as the instrument. This mitigates concerns over peer effects because students from the prior cohort are likely to have less influence on the student. The results are qualitatively similar to those presented in the report.

Finally, it is important to note that the IV model we used does not isolate the causal impact of dual credit for all students, but rather a weighted effect where the students who are most responsive to the instrument are weighted the most; this is what economists refer to as the local average treatment effect (LATE). In our case, this means that we identify the effect of dual credit for students who would be most likely to switch from a nonparticipant to a dual-credit

participant because they moved from a school with a larger share of dual-credit participants to one with a smaller share.

Summary, Limitations, and Conclusions

In this chapter, we used quantitative analyses to assess three primary RQs:

- RQ 1 What factors contribute to disparities in dual-credit participation?
- RQ 2 What changes in dual-credit participation, success, and delivery have occurred since the passage of HB 505?
- RQ 3 To what extent does dual-credit participation increase college enrollment, degree attainment, and efficient degree completion?

Racial Disparities Analysis

Differences in academic preparation, income, and high school attendance patterns serve as major contributors to racial and ethnic disparities in dual-credit participation. Our descriptive analyses showed that the dual-credit participation rate of White students was 24.7%, while the corresponding rate for Blacks (Hispanics) was 10.6% (15.6%)—a gap of 14.1 percentage points (9.1 percentage points). However, when we used regression methods to account for differences in academic preparation and income, those gaps narrowed significantly. For example, our analysis suggested that if Black (Hispanic) students had the same eighth Grade TAKS and STAAR scores as White students, then the gap in dual-credit participation would decrease from 14.1 percentage points (9.1 percentage points) to 6.9 percentage points (3.9 percentage points). We also ran similar models to assess whether differences in access to dual credit, access to AP/IB courses, and access to tuition and fee waivers for dual-credit students also contributed to gaps in dual-credit participation; however, we found little evidence that that these factors made any difference in narrowing these disparities.

HB 505 Analysis

Increase in dual-credit participation and SCH since HB 505, primarily for ninth and 10th graders. Our descriptive analysis showed that dual-credit participation among all ninth through 12th grade students was 7.5% prior to the passage of HB 505 from 2012–15, and increased to 8.5% from 2016–17. This represents a 13% increase in the dual-credit participation rate over a 6 year period. The rate of growth of dual-credit participation was particularly strong for ninth and 10th graders. Ninth graders increased their dual-credit participation rate from 1.0% before

HB 505 to 2.1% after, an increase of 110%. Tenth graders increased their dual-credit participation rate by 60% from 2.7% before HB 505 to 4.3% after. There was also a significant increase in the number of SCH taken per dual-credit participant, leading to a continued increase in the number of SCH of dual-credit delivered statewide from 2012–17.

Suggestive evidence that standards in dual-credit courses for ninth and 10th graders may have declined since HB 505. While ninth and 10th grade dual-credit participation remains low relative to participation of 11th and 12th graders, our descriptive analysis showed that dual-credit participation rates of ninth and 10th graders increased significantly in percentage terms after the passage of HB 505. We examined whether there were concomitant changes in academic preparation and dual-credit course pass rates among ninth and 10th-grade dual-credit participants. The results demonstrated that academic preparation among ninth and 10th grade dual-credit participants declined over this period, while dual-credit course pass rates increased for those groups. These patterns were not evident among 11th- and 12th-grade dual-credit participants. Taken together, these results are concerning and suggest that standards in dual-credit courses for ninth and 10th graders may have declined since HB 505.

Causal Impact Analysis

Dual-Credit participation improves a range of student outcomes on average, but the causal effect of dual-credit participation is much more modest than what has been reported in past descriptive studies, including the Phase I Interim Report. Past studies have documented that dual-credit participants have better outcomes than nonparticipants. For example, in Phase I, RAND found that, after accounting for some observable characteristics, dual-credit participants had college enrollment (completion) rates that were 17 (21) percentage points higher than those for nonparticipants. Our study replicated these descriptive findings but also used more rigorous econometric methods for causal inference to address selection into dual-credit participation. The results indicated that most, but not all, of the observed difference in student outcomes is due to differences in characteristics of dual-credit participants and nonparticipants. After accounting for selection, dual-credit participation had the following effects:

Increased college enrollment by 2.4 percentage points primarily through an increase in enrollment at two-year colleges

Insignificantly increased college completion by 1.1 percentage points by increasing attainment of all types of postsecondary credentials

Increased total SCH-to-degree by 4.2 but decreased time-to-degree by 0.1 years or 1.2 months.

The effect of dual-credit participation on student outcomes is more positive for White students, higher income students, and students with higher levels of academic preparation; the effect is negative in some cases for less advantaged groups. Our analysis indicated that dual-credit participation increased enrollment and completion primarily at four-year colleges for White students. For Black and Hispanic students, dual-credit participation increased enrollment at two-year colleges but did not meaningfully influence college completion rates. We also found that students with eighth grade standardized test scores that were one standard deviation above the mean in mathematics and reading benefited significantly more from dual-credit participation than did students with lower scores. Of particular concern, we found that, on average, the impact of dual-credit participation for students who were eligible for free or reduced-price lunch was negative for most outcomes. However, further analyses suggest that these patterns were likely due to the fact that free and reduced price lunch eligible students were more likely than ineligible participants to have lower 8th grade standardized test scores that hindered their success in dual credit education courses.

Additional Analyses

We are currently working on two additional analyses that we plan to incorporate into the final report.

An Examination of the Effect of CTE Dual Credit Relative to Academic Dual Credit

Currently, our causal impact analysis does not distinguish the effect of CTE dual credit separately from that of academic dual credit. Given that more than 90% of dual-credit courses are academic, the effect is mostly driven by participation in academic dual-credit courses. Beginning in 2012, THECB began collecting course-level information that allows us to identify CTE vs. academic dual-credit courses. We are working to adapt our IV model to identify the short-term effect of CTE versus academic dual credit using the 2012–16 cohorts of high school juniors.

An Examination of TSIA Data

An important issue that we have not yet fully examined is how high school students became eligible for dual-credit education before and after HB 505. We recently gained access to Texas Success Initiative Assessment (TSIA) score data for all administrations of the TSIA since 2013 from the College Board, but we have not had sufficient time to incorporate and analyze the data. We will use

this data to determine the extent to which average scores on the TSIA have changed since HB 505 and the extent to which students entered into dual-credit education through other means.

Chapter 2. Dual-Credit Advising Practices and Models

As states, districts, and education institutions look for ways to improve the effectiveness of dual-credit education to boost students' college access and completion, the dual-credit advising process is an important consideration. College advisors and high school counselors may serve as the primary source of information about dual-credit education for students and families as they navigate the complexities of determining the best path forward to postsecondary attainment and career success. The 2015 passage of HB 505 in Texas, which significantly lowered restrictions on institutions delivering dual-credit courses, has heightened the potentially important role of advisors and counselors in reducing the number of excess semester credit hours dual-credit students obtain and ensuring course credits earned through dual-credit transfer toward the requirements of a particular major or certificate. Indeed, a 2012 study of dual-credit and high school advising on student persistence in college suggests there are two critical components to advising. These include: strong advisor support and finding the balance between supporting students and giving students the tools to problem solve and advocate for themselves during the advising process (Raia-Taylor, 2012).

In this chapter, we present the findings from a set of qualitative interviews we conducted with a sample of high school counselors and college advisors involved in dual-credit student advising. We conducted these interviews with the goals of better understanding advising within the current environment of dual-credit education in Texas, and offering practical, evidence-based suggestions on how to improve dual-credit advising processes and practices.

Background and Policy Context

The wide variation in dual-credit education approaches across the state of Texas has resulted in a vast array of dual-credit education contexts that affect the advising process, including the types of students counselors and advisors target and encourage to pursue dual-credit education and how they guide student course taking. The various contexts are shaped by the different district policies, dual-credit partnership agreements between colleges and high schools, dual-credit course delivery modes and range of course offerings, distance between the colleges and their high school partners, financial supports for dual-credit education, school philosophies, and student demographics. Dual-credit administrators interviewed as part of Phase I of this study, for example, reported differences in student advising across programs stemming from factors such as distance from the partner college, whether the high school was an ECHS, and to resource availability (Miller et al., 2017). The wide array of approaches that are used to deliver dual-credit coursework and advise students into the various course options raises questions about how

differences in the roles advisors on the college and high school sides play affect the quality of advising in dual-credit programs. Indeed, although college advisors and high school counselors carry out their responsibilities within the requirements and guidelines of their particular dual-credit partnership agreement, the manner with which these individuals interpret local dual-credit policies and implement their practices will inevitably depend on their familiarity with the dual-credit model and the benefits and potential pitfalls for dual-credit students in taking certain courses or a certain number of courses, and also contain a degree of subjectivity that can affect student participation, persistence, and outcomes.

This component of our Phase II study aims to deepen understanding about the dual-credit advising process and seek to build on the results of Phase I, which raised some important issues and questions. The Phase I study reported that, according to dual-credit administrators at the community college level, the extent to which college advisors provided specialized and individualized guidance to students and families hinged on available resources. In cases of limited resources, high school counselors took on a more prominent advising role. For some dual-credit administrators, this was a concern because they perceived the high school counselors as having limited knowledge about the rigor and transferability of college-level courses. In addition, concerns were raised among dual-credit administrators about high school students taking dual-credit courses when they had not yet selected a major and the emotional and academic preparation of high school students succeed in college-level coursework (Miller et al., 2017). Specifically, this component of the study was designed to examine the following RQs:

- RQ 1 How are high school students advised into dual-credit education programs and courses?
- RQ 2 How might different advising practices or models contribute to disparities in dual-credit education participation?
- RQ 3 What are some promising approaches to improve dual-credit advising to reduce the average number of semester credit hours students who took dual-credit in high school ultimately earn toward a college degree?

Framed by the theories of policy sociology (Gerwitz & Cribb, 2002), public management (Gray & Jenkins, 2006), and sensemaking (Spillane, Reiser, & Reimer, 2002), this component of the study examines how the scope, depth, and quality of advising of dual-credit students are influenced by macro- and micro-level system pressures; resource constraints; governance structures; and advisors' and counselors' prior knowledge, beliefs, and perspectives about dual-credit education. The interviews were also used to explore the extent to which these factors may influence student access to and participation in dual-credit education.

The findings presented in this chapter contribute to a stronger understanding of dual-credit advising policies and practices in Texas to help identify where improvements in advising can be made to help reduce excess semester credit hours, ensure credit transfer to degree, and promote equitable student access to dual-credit education opportunities.

Data Collection and Analysis

Data Sources and Collection Activities

The research team conducted semistructured telephone interviews with college advisors and high school counselors across the state of Texas who were involved in dual-credit student advising. Prior to each scheduled interview, the respondents completed an online questionnaire, which gathered basic contextual information about their advising roles, the students they served and their dual-credit partnership. (See Appendix B for the preinterview questionnaire and interview protocols.) We used these data to tailor and streamline the interview protocol and ask probing questions regarding their practices and the factors that affected how they carried out their responsibilities.

The interviews took place between November 2017 and February 2018. The interview protocols collected data on high school counselors' and college advisors' respective roles and responsibilities in the dual-credit advising process, the factors they considered in advising students into dual-credit education and into specific dual-credit courses, how they shared information with students and families, and how they coordinated advising-related activities with their dual-credit partners. In addition, the interviews asked college advisors and high school counselors to describe the challenges they experienced in advising dual-credit students and identify the supports they believed would help them overcome these challenges. The interviews were audio recorded and transcribed to ensure accuracy and completeness of data.

Sample

The research team selected a purposeful sample of 52 IHEs and 50 high schools with dual-credit partnerships to ensure the sample captured the variation of dual-credit delivery models represented in the state. The criteria for selection included the following:

- Type of IHE partner (two-year versus four-year institution)
- Size of the dual-credit education programs—operationalized as the number of partnering districts and schools and the number of dual-credit SCHs delivered, wherein the number of

SCHs is defined as the number of contact hours per week delivered for a given course over a semester

- Type of dual-credit education delivered (academic versus CTE)
- Approach to delivering dual-credit courses (ECHS designation)
- Geographic region in the state
- Location of partnering high school (rural versus urban)
- Demographic characteristics of student population served (including socioeconomic status of students and percentage students of color)

Our final interview sample included counselors and advisors from 50 high schools and 52 IHEs. The characteristics of the final sample are provided in Appendix C.

Analytic Procedures

The analytic team developed a codebook and coded the transcribed interview data using NVivo 11 Plus, a qualitative data analysis software. The codebook development entailed two major steps: (1) we first established a preliminary set of codes, based on our key constructs of interest and associated questions in the preinterview form and interview protocol (e.g., roles and responsibilities, targeted students, coordination between partners); (2) we used this preliminary set of codes to code a sample of the interview transcripts, using both inductive and deductive coding methods to generate a final set of codes. The final codebook is presented in Appendix D. The final set of codes were structured so that analysts could apply more than one code to the same interview passage as applicable and to facilitate within and cross-case analyses. Throughout the analytic process, the team engaged in regular communications throughout the coding process to ensure consistent application of the coding structure, strategies, and rules for coding the data. Major emergent patterns and themes were also shared and discussed to confirm a shared understanding and interpretation of the coded data.

The team's approach to analysis was purposefully integrated, leveraging the data from both the set of college advisor interviews and the set of high school counselor interviews to enhance our understanding of dual-credit advising as a whole and to detect patterns among colleges and high schools with different characteristics. Specifically, we undertook iterative thematic coding of each major topic and interview question to surface recurring patterns and common themes (Maxwell, 2013; Merriam, 1998) across all college advisor and high school counselor respondents to assess the prevalence of practices across sites and to identify examples of

advising practices and models that may be of interest to policymakers, school leaders, and other educators. This same coding approach was used to conduct subgroup analyses to explore advising practices overall and differences in advising approaches and experiences between high school counselors and college advisors and to explore any differences in advising specific to partnerships with an ECHS partner, with CTE making up 75% or more SCH delivered, and those serving rural student populations.

These subgroup analyses were of interest based on the findings that emerged from the Phase I study (Miller et al., 2017) and other scholarly literature suggesting that the types of students targeted for dual-credit education, the factors that are considered when counseling students into dual-credit education programs and courses, and the challenges and supports needed to improve dual-credit student advising may be affected by these factors.

Limitations

Readers should note some limits to the interpretation and generalizability of the interview data because the study sample did not fully reflect the total population of dual-credit partnerships, and the large number of college advisors and high school counselors involved in dual-credit student advising. The data obtained through these interviews also are limited to the recall and perceptions of the individual respondents at the time of the interview. Thus, the full range of advising practices, processes, procedures, and experiences may not have been captured. However, it is expected that these limitations had a negligible effect on the findings.

Organization of Chapter

The remainder of this chapter is organized around key findings that address the three primary RQs. We first report on the students targeted for dual-credit education, then the roles and responsibilities of high school counselors and college advisors in the advising process and the extent to which and how advising activities were coordinated between partners. We next discuss the dual-credit course selection process, including how students were counseled into specific dual-credit courses and the latitude students are afforded in the selection process. The chapter concludes with a discussion of the reported challenges and supports needed to improve student advising, particularly related to reducing risks of excess credit, increasing the likelihood of dual-credit course transfer to a specific major and postsecondary degree, and ensuring greater equity in dual-credit participation and outcomes for dual-credit students.

Findings

Students Targeted for Dual-Credit Education

The extent to which high school counselors and college advisors actively targeted students for dual-credit education varied based on district policies and school philosophies about which students could benefit from and succeed in dual-credit courses.

All respondents indicated that they targeted students for dual-credit programs based on district policies for dual credit and the MOUs that were in place with their partners. Within these parameters, there was some variation in the extent to which high school counselors and advisors actively recruited or encouraged certain types of students to apply. For example, about three-quarters of the respondents reported that their partnerships encouraged all students to participate in dual-credit education while close to one quarter reported partnerships that were more selective, targeting only those students who were excelling in their high school classes and demonstrating high levels of emotional maturity.

With respect to counselor's and advisor's direct involvement in selecting students for dual-credit, nearly half of the respondents reported that they monitored student participation and their eligibility for dual-credit programs but were not technically involved in "selecting" students. Rather, students self-selected into dual credit if they were interested and met the test score requirements on the TSIA or additional criteria. These counselors described their role in the selection process as largely

telling [students] whether they can or cannot take it based on their TSI results or their ACT or SAT exemption. We don't tell who can and who can't. We will make the presentation to an entire classroom and then the only thing that we say is, "Yes, you can take it based on your academic TSI test" or "No, you can't because you're not qualified."

This finding is consistent with other studies of dual-credit student advising showing that students were not specifically selected for dual-credit programs, but primarily sought out dual-credit courses on their own initiative, with the college readiness placement test serving as the gatekeeper to participation (Osumi, 2010; Piontek, Kannapel, & Stewart, 2016). This finding is also consistent with a study of one Texas high school that reported more than 70% of Southeast Texas high school dual-credit students named themselves as their greatest influence in deciding to take a dual-credit class. Just 5% of students said their high school counselor had the greatest influence on their decision to enroll in a dual-credit course (Ozmun, 2013).

The other half of the high school counselors indicated that they played a larger role in selecting students into dual-credit programs but still described their roles as fairly minor. For example, most of these respondents said their schools maintained an “an open-door policy” but that they were required to sign off and officially approve students for participation after reviewing evidence of their readiness for dual credit. This occurred most often in districts that had additional criteria to restrict access to dual credit beyond the basic eligibility standards established by the state.⁷ Frequently in these cases, student behavior, discipline, attendance records, or past performance in dual-credit courses (if applicable) were considered.

The majority of the high schools primarily targeted juniors and seniors, using grade level as the proxy for ensuring students were academically prepared and mature enough for the dual-credit class environment. The advisors and counselors in these partnerships targeted their information sessions and reported that the districts designed their dual-credit course offerings accordingly. For example, they started sharing information about dual-credit during students’ sophomore year and offered courses that aligned with the typical course sequences for juniors and seniors.

As mentioned, close to one-quarter of the respondents described their dual-credit programs as more selective in their approach student selection. Among these sites, academic performance and student discipline, responsibility, time management, and emotional maturity were emphasized during dual-credit information sessions and during more individual counseling sessions. Several college advisors described using the information sessions with students and families to communicate what types of students are good candidates for dual-credit as an indirect way of “encouraging” certain students to apply. As one advisor reported, “We try to be very frank with [the students] upfront and.... we try to make sure the parents have information as well to understand that dual credit may not be the perfect choice for every student...they need to be able to operate on their own in a self-motivated way especially in the online courses.” The high school counselors in more selective dual-credit settings echoed this sentiment and reported having candid conversations with parents and students about their dual-credit prospects and potential risks. When asked about whether there were any students she advised against taking dual credit, one counselor noted:

⁷ Basic eligibility standards do not require high school students to demonstrate college readiness through the TSIA or other alternative tests, but they do mandate students to exhibit some level of academic proficiency in reading, writing, or mathematics. Some of the tests used to assess readiness for dual credit courses are ones that high school students can take before they reach the 11th or 12th grade and include the PSAT, PLAN, and the STAAR EOC in Algebra I and English II, courses typically offered in the first two years of high school (Miller et al., 2017).

I wouldn't say, "advised against it," but we have long talks with them and their parents, students who have poor study skills or have low academic grades, especially in the subject that they're wanting to take the course in.... I tell them, I say, "Dual-credit can be doubly good or doubly bad." I say, "If you don't pass it, then you don't get credit in high school and you also don't get credit in college, and you have an F on the transcript.

Another explained,

All students have an opportunity to say, "Hey, this is the program that I think I might be interested in." However, what we might market as a good candidate for dual credit is a student who has an overall B average or higher in their high school courses. ... They must've passed all their state exam requirements or their EOCs, earned all their credit.... If they're already struggling at a high school level, we don't want to put anything on them that's going to create more of a stress or more of a challenge or something that's going to stand in the way of them meeting those requirements that they need.... We do let them know that they have to have good attendance. Their discipline record, obviously they take these classes over at the college so being that independent learner.

Although nearly all college advisors and high school counselors stressed the importance of emotional maturity and academic discipline during interviews, these more selective partnerships more directly encouraged or discouraged students based on a student's high school rank, performance in high school courses (e.g., GPA), attendance and behavior, and input from teachers. As one high school counselor stated,

We've got groups of students who are not academically successful...we don't want them taking dual-credit classes if they're going to end up failing or dropping or getting a W on their transcript or even getting a D. We don't want them to do it just to do it. We want to make sure they can be successful and then it's going to pay off in the end.

In most cases, these schools targeted and encouraged the same students for dual credit as for AP and IB programs, leaving it up to the student and their families to determine if they wanted to enroll in both or one or the other. In a few cases, however, high school counselors indicated targeting the highest performing students (those in the top 10%) for AP versus dual credit because they perceived the rigor of AP courses as higher and then targeting those performing in the top 20% to 25% for dual credit.

Some schools, particularly those serving disadvantaged populations, had a clear focus on access and encouraging all students to participate in dual-credit education.

The ECHS schools that, by design, target all their students (Grades 9–12) for dual-credit education, followed this approach, but so did close to one quarter of the traditional high schools in the sample. Many of these schools served first-generation or low-income students, and counselors emphasized their school’s commitment to developing students’ awareness of the postsecondary options available to them and to fostering a college-going culture. As one high school counselor reported, “We try to encourage our kids to reach their highest potential and realize that maybe we see something more in them than they might see in themselves and so we talk to all of our kids about dual-credit classes and we differentiate between those classes and how it’ll benefit them and how it won’t.” Similarly, another stated, “We really [encourage] our dual-credit programs, so that the students who may be all their lives at home have been told, ‘You’re not going to college. I didn’t go to college. We don’t need to go to college,’... we really try to open those doors and [help students] realize that, ‘I can go to college. I am smart enough.’” As a final example, one high school counselor described how the only students they really went out of their way to encourage into dual-credit programs were the students on free and reduced-price lunch because these were the students that often weren’t as aware of the dual-credit opportunity as other students and/or as likely to perceive dual-credit as an option even if they were strong candidates. She stated, “If they’re free/reduced lunch, we do try to focus on our dual-credit student that is qualified one way or the other. [If] they’re in the top 2%, we really seek those kids out that are meeting free/reduced lunch, try to encourage them to use fee waivers for ACT and take advantage of those opportunities.”

Similarly, a few high school counselors indicated that, based on their prior observations and experiences in advising students, they believed all students have the potential to succeed in dual-credit courses. One explained,

my five years as a dual-credit advisor that students come whether they have physical disabilities, whether they have mental disabilities, whether they have straight As or they have a 2.2 GPA. I found that any type of these students can be successful in a college class pending having the desire and the motivation to do so.... I’ve also seen students who with their 3.5 GPA and have been in pre-A.P. classes all their lives who are right now dropping their college course because they were not successful.

The counselor from another high school shared this sentiment noting that students were not directly advised against dual-credit education because of the unpredictability of what types of

students would be successful: “We have some students who are very immature or sheltered, and I have thought they’re probably not going to do well, but then they really seem to enjoy the challenge or the different atmosphere, different teachers.”

Rural schools, the schools with CTE dual-credit programs, or schools with a wider range of dual-credit courses beyond the core were also more likely encourage a greater variety of students to participate. In some cases, counselors perceived that any college course experience would benefit their students by allowing them to more deeply explore or progress in a certain field of interest or gain exposure to the college environment. One high school counselor indicated, for example, that she believed dual-credit welding and art classes could challenge students to meet the expectations of a college course and develop important skill sets that could benefit students in their future endeavors while providing students with opportunities to “express themselves in a little bit of a different way.” This counselor went on to explain, “We think all kids are capable of that type of rigor and that type of level of thinking, even those that might take a little longer to get there.”

Despite the variation in the extent to which certain types of students were actively targeted or encouraged to pursue dual-credit education opportunities, we found no evidence to suggest that implicit biases or discrimination in advising practices was leading to disparities in dual-credit student participation. District policies and school philosophies appeared to have the largest effect on which students were targeted and selected for dual-credit education.

Cost and extracurricular activities were most frequently reported barriers to student participation in dual credit.

High school counselors and college advisors most commonly reported that the TSI, as the primary gatekeeper to dual-credit education, was the only major barrier to student participation in dual-credit programs. For the students to which dual-credit programs were targeted, however, most did not perceive significant barriers to access. Respondents attributed the lack of barriers to the school’s open-door policy to dual-credit education, which allowed all interested students to apply; financial supports for students such as tuition waivers, discounts, or scholarships; and proactive efforts to encourage all students to participate in dual credit coupled with intervention and support services to prepare students for the rigor and expectations of dual-credit classes. One respondent described how a local foundation helped ensure equitable access to dual-credit:

We have an extremely generous community and foundation that offer an ample amount of scholarship opportunities to our students of all backgrounds...so they encourage

every student that's interested in dual-credit to fill out college scholarship applications and then of course any student on a [free or reduced-price] lunch, that particular grant will cover six hours or the typical two courses that they would enroll in here at [the] high school and so a lot of that credit is free to those kiddos. I would definitely say this is very open to kids from various backgrounds.

Approximately one quarter of respondents, however, did report that some of their qualified students were not able to participate in dual-credit education. The costs associated with taking dual-credit classes was mentioned most frequently, particularly by advisors and counselors serving rural communities where many of the students were economically disadvantaged. One high school counselor remarked, "The other problem is our district does not pay students or pay for students' dual-credit classes like a lot of them do around here. I believe that we have a lot of students that could take dual-credit and benefit from it, but they are unable to afford it."

Another commonly perceived barrier among these respondents was the number of other activities (including jobs) and extracurricular activities, such as sports, performances, and honors societies, in which students were involved. High school counselors described the difficulty some students had in fitting dual-credit courses into their daily schedules, with one counselor explaining, "Those kids are also your NHS [National Honor Society] kids, your kids that are involved in our National Technical Honor Society that are in band or cheer and now they're adding one more thing to their plate, which in turn affects their grades, which in turn – it's a cycle." One school had taken action to help remedy this type of barrier by establishing class periods during which students could work on their dual-credit coursework. According to the high school counselor, in past years the students had to complete their online dual-credit courses on their own time, but the new class periods gave them dedicated time during the school day to complete their work, and she had seen an increase in student participation.

Counselors working at ECHS high schools and a few of the counselors at traditional high schools also reported a more active advising role when students were not performing well in a course. ECHS schools had a number of support systems on site, including college prep classes, study skills classes, tutoring, and some social-emotional supports into which counselors could direct struggling students. The traditional high school counselors more frequently described advising students struggling in their dual-credit courses about the supports and services available to them through the college, although one traditional high school had started a middle school bridge program that continued into the high school to prepare and support dual-credit students. Similarly, another high school counselor reported on a new school-based intervention that they counseled students into if they needed support with their dual-credit courses:

We've actually started something this spring, kind of a mentoring program with some of our weaker students that are not maybe making the grades that they should be and they're struggling in some classes and/or they're new to dual-credit and they're taking on a lot of classes all at once. We have a teacher assigned to maybe two students, and they check on them weekly, if not daily, and get to know them better, know what makes them tick, get to them on a personal level.

Roles of High School Counselors and College Advisors

The majority of high school guidance counselors played the primary role in advising dual-credit students, with one quarter sharing this responsibility with college advisors.

Overall, high school counselors played a vital role in coordinating dual-credit student registration, course scheduling, activities to build dual-credit awareness, and student participation. They were the central point of contact for enrolling students and served as the main liaison between the high school and the college with respect to dual-credit education. In addition, with few exceptions, high school counselors served as the primary advisors for dual-credit students, both with respect to selecting or determining student eligibility for dual-credit education and working with students to select dual-credit courses.

Nearly all of the college advisors reported relying on the high school counselors or administrators to identify the students for dual-credit participation per the partnership agreement and district policies. Rarely were they reported as being involved in the actual selection of students into dual-credit programs beyond confirming that students met the dual-credit college application requirements. As one high school counselor indicated, "We pretty much do the advising. Our college advisors are there to answer any questions that we may have.... They typically don't meet with the students face to face. We're that mid person." Similarly, a college advisor reported, "We rely very much on the school counselor to say, 'Yes, the student can be successful in this course,' because they know those kids much better than we do. It's the way that we operate. If the school says, 'Yes. We feel like they're mature and they can handle it. They're self-motivated. They can do this,' then we go ahead and put them in."

This overall reliance on high school counselors may be significant in its implications for ensuring high school counselors are armed with the knowledge and training they need to: assess the academic and emotional readiness of their high school students for college-level coursework, while still promoting equitable access to dual credit; and the have understanding of postsecondary degree programs and requirements to help ensure students are streamlining

their postsecondary pathways and not taking on excess credit. Moreover, high school counselors are typically tasked with serving large numbers of students and not just dual-credit students. As will be discussed later in this chapter, high school counselors frequently reported struggling to find balance their dual-credit advising responsibilities with their other responsibilities, resulting in less one-on-one advising time with dual-credit students. College advisors typically played a secondary role, serving as the key point of contact for high school counselors and sharing information about dual-credit with prospective students and their families, except in special circumstances.

College advisors were most frequently involved in delivering in-person dual-credit education information sessions to prospective students and their families, usually annually or biannually. They presented on the key features of the dual-credit program, student eligibility, course offerings, the registration process and required forms, and answered questions. Most college advisors indicated that they also used these sessions to emphasize the important differences in instructor expectations and rigor between dual-credit courses and traditional high school courses. For example, one advisor reported,

I go heavy on the idea of their schedules with college-level courses and the rigor and the expectations that the professors are going to have for them as college students. No missed days, no excused absences, that kind of thing. ... We go over the importance of a syllabus and communicating with their professor.

College advisors also consistently described being in regular contact with the high school counselors; so, even if they were not directly working with students, they were greatly involved in coordinating activities and sharing information with these individuals.

A few college advisors reported becoming more involved in selecting or advising students if they were “accelerated,” pursuing CTE dual-credit programs, or if they were freshmen or sophomores.

College advisors became more directly involved in special circumstances, including in the case of “accelerated students” or advising outside of the core, CTE dual-credit programs, freshmen and sophomores, and poor performance. When a student was “accelerated,” or on track to earn an associate’s degree at the same time as their high school diploma, college advisors reported playing a larger role in advising. In such cases, the college advisor would typically meet individually with the student to make sure they enrolled in the courses they needed to complete their degree, while the high school counselor would continue to ensure students were enrolling in courses that would satisfy high school graduation requirements. Similarly,

some college advisors noted that they were not involved in advising students unless students were interested in courses outside of the core. One of the partnerships in the sample, for example, required that students looking outside of the core participate in an advising session with a college advisor.

As another example, a college advisor talked about how she was not at all involved in the advising process for students pursuing the academic dual-credit program because the courses were limited to the academic core, but much more engaged in the CTE dual-credit advising because of how customized those programs are in terms of coursework. She reported that the high school counselor “gains their interest in the field, but I advise on what the next courses to take and where they are in their level of certification because with each course and each program, it’s more specialized... I work with her and the students individually to say, ‘These are the courses you need here, and this is what you’ll accomplish with that in this certification.’” Likewise, another college advisor indicated that she was more involved in advising for CTE students stating,

It’s really only the workforce students that we help, and by that I just do some probing questions. I ask them what their career goals are, I ask them why they’re thinking that dual-credit is a good option for them, just trying to get to the reason behind why they came to see me or why they told their counselor they were interested in talking about dual-credit.

Others mentioned that they only became involved in the selection of students if they were freshmen or sophomores, largely to help ensure the students were academically and socially prepared to meet the demands and expectations of college-level course work. As one of these advisors explained:

For [ninth and] 10th graders who are trying to enter dual-credit.... We do have a process in place where I do individual assessment of their attendance records or discipline records, their TSI scores, their high school transcripts, letters of recommendation to let them into the program. Juniors and seniors, they’re just meeting the general admission requirements for the college and they come in, but for our freshmen and sophomores, there is a more hands-on direct advising experience.

College advisors also described becoming more directly involved in the advising process when students were not performing well in their classes or there were concerns about attendance, although their involvement remained primarily with the high school counselor. In these cases, college advisor reported the concerns to the high school counselor who then took the lead on

intervening with the student. One high school counselor reported, “[The college advisors] tell us if a student is not doing very well in class. Throughout the school year, we are the mediators between the professors and students and their parents as far as like their grades and things like that, if they’re not doing well.”

About one quarter of the college advisors and high school counselors described more of a shared responsibility in advising, with both parties equally involved in the process.

In these cases, both the college advisors and high school counselors had direct contact with students or were more actively engaged in regular communications to make decisions about how to guide students’ dual-credit course selections. One of the high school counselors describing the advising process as “shared” stated,

[College advisors] meet with us twice a year...I [first] meet with kids and advise them based on what pathway that they’re on [and] what class they should take. Then [the students] meet with a [college] advisor as well, and the [advisors] will either agree with me or they’d recommend them taking something else based on where they want to go to school...and what they want to study.

In another case, a college advisor played an active role in student advising by talking often with the high school counselors to make sure that the courses students were taking would apply not just to a high school degree, but to a university or college degree.

In these cases of shared responsibility for advising, the college and high school were often located close to one another, allowing college advisors more frequent access to students and direct involvement. One of the high school counselors in this type of situation described how their partner college was located just two blocks from the high school and the college advisor had two offices—one at the college and one in the high school. This arrangement led to the college advisor and high school counselor working in tandem to counsel students into dual-credit and dual-credit courses. The high school counselor went on to explain, “[she] and I work very closely...she assists in all of the advising so [she] and I will meet with [students] together so they hear the same thing from both of us.” Similarly, another partnership had established an advising structure where the college advisors had a dedicated high school counselor contact for CTE dual-credit and one for academic dual-credit. The CTE counselor’s office was on the college campus, which “offers a lot of convenience,” according to the college advisor; and on the academic side, the college advisor reported having face-to-face meetings with the high school counselor at least once or more a semester. Although the high school counselors still took the lead on student recruitment, the college advisor indicated working very closely with the school

to provide students with the information they needed and that they maintained an open-door policy with dual-credit students. High school counselors referred students to the college advisors if there were any questions or parent concerns related to a student's participation in dual-credit programs.

This more infrequent shared approach to advising dual-credit students may warrant further exploration to determine the potential value add of having the college and high school perspectives guide student selection and course taking.

Coordination of Advising Activities

Overall, high school counselors and college advisors described close working relationships, most commonly to coordinate school visits and dual-credit information sessions, registering students, and course scheduling.

All of the high school counselors and college advisors in the study described coordinating dual-credit activities with their partners. They primarily coordinated efforts related to students' application materials, registration, course scheduling, and transcripts and grades. They also reported coordinating joint dual-credit information sessions for students and families, as discussed earlier. These information sessions were usually held on the high school campus once or twice a year and, in some cases, included presentations by both the high school counselor and college advisor to share both perspectives.

Many counselors and advisors also reported that they worked with each other to develop materials to help counsel students into certain courses or to help monitor and track students' progress toward meeting their high school graduation requirements or an associate's degree. For example, high school counselors typically developed a course crosswalk to share with advisors so they could see how the dual-credit courses mapped to high school graduation requirements. Likewise, college advisors reported providing high school counselors with their academic catalog "so that they're familiar with any changes in our degree requirements and they can also look at course descriptions to determine if they can crosswalk certain classes. We also sometimes provide them with the syllabus for different courses if they're needing to compare student learning outcomes again to determine if they can crosswalk classes."

In a few cases, advisors and counselors worked more closely together to decide which classes would be offered as dual-credit each year. For example, one high school counselor described being in the process of planning with the college advisor for the following year to put together

the dual-credit course guidebook and a “choice sheet” for students that would outline the classes available for the fall semester.

Nearly all advisors and counselors reported being in regular, if not constant, e-mail or phone communication as advising questions, concerns, or other issues arose. They described open lines of communication to check in on how students were doing in dual-credit courses, ask questions about credit-transfer or course credit toward degree, relay questions from parents, provide updates on new initiatives or policies, or to share scholarship and financial support opportunities for dual-credit students. Some partners held more formal check-in meetings throughout the year to review procedures and troubleshoot any concerns. One college advisor reported holding counselor meetings with the high school every fall and spring semester

where we’ll go over all of the general housekeeping items, any concerns that are coming up. We do this in group sessions and then I am out visiting face-to-face, at least a few times a semester, to talk to them about different things, pass along information to see what their concerns are and assist them with any questions, and then we provide support and coordination via phone and e-mail, sometimes on a daily basis.

Another counselor described visiting the high school at least two or three times a semester to have direct contact with the dual-credit students and meet in person with the counselors. This counselor stated that these visits, as well as other activities such as college fairs, were planned and coordinated in close collaboration with the high school counselor.

Close proximity to one’s partner was perceived as fostering effective coordination.

Although being far away from one’s partner was not reported as a major barrier to coordination, the college advisors and high school counselors that were in close proximity to one another emphasized the benefits of the face-to-face interactions they were afforded. As one college advisor stated, “Conversations and e-mails are great, but when you’re able to sit down with somebody and just deepen what’s already there, there’s benefits to that.” Many others talked about how valuable it was for the partners to be “a familiar face” among students and for both sides to have a firsthand knowledge of their respective campus cultures, students, staff, and procedures. The opportunity for students to visit and spend time on the college campus was also seen as helping ease students’ transition into dual credit, including their ability to adapt to the college environment and raise their comfort level with being on a college campus.

Course-Taking Considerations

Students' postsecondary plans and likelihood of credit transfer were most commonly considered in advising students into dual-credit courses; high school counselors also frequently reported considering students' grade level and high school graduation requirements.

Postsecondary plans and credit transfer. Regardless of the extent of their involvement in advising students, nearly all of the counselors and advisors emphasized the importance of students' postsecondary plans, including their planned major or desired CTE-degree certificate and where they were interested in attending college in guiding dual-credit course taking decisions. Respondents described how having this information allowed them to better counsel students into taking courses that would transfer to a specific degree plan, whether they would be seeking an associate's degree or a four-year degree. Many high school counselors and advisors expressed concern that if students were undecided in their major or uncertain about their post-high school plans, they would be at risk of taking and spending money on courses that would not transfer to a specific degree or college, particularly if they elected to attend an out-of-state school or highly selective university.

Indeed, credit transfer was reported as a major advising consideration by the majority of high school counselors and college advisors and many reported sharing resources with students about credit transfer; however, for the most part students were strongly counseled to conduct their own research on credit transfer. For example, as one counselor described:

We don't specifically review [credit transfer] ourselves. It's indicated that the students need a little bit of legwork to go along with that. We talk about certain courses and how they transfer. As an example, political science, health, those can transfer to different institutions within the state of Texas. We talk about the common core's numbering system to look at how classes are going to transfer. Then we talk about instances where they might have to repeat a course depending on the institution that they transfer to and what their major is going to be within that.

High school counselors and college advisors taking this approach reported strongly advising students and their parents to call colleges directly to find out if a certain course would transfer and to review credit transfer policies on college websites. A small number of high school counselors and advisors, however, took a more active role in confirming credit-transfer information for students and used this information to guide their conversations with students.

One high school had developed templates to map certain courses onto specific majors and degrees at some colleges. Similarly, another respondent described how the counselors would pull the transfer sheets directly off college websites for students to “make sure that any class that they’re interested in is something that will be, one, be part of their degree plan and two, be something that’s commonly transferable.” One high school used a specific program called Naviance⁸ with students. The program offers an online career interest survey and, according to the high school counselor, “they match that career interest to a college major at a particular university, and this program automatically pulls up a degree plan, courses that they would need to take to graduate with that degree.... We can match their dual-credit to those courses.” At the same time, this counselor still emphasized, “I’m very careful to tell them that until they meet with their college advisor at that freshmen orientation, you really don’t know exactly what is going to be accepted and what’s not.”

High school graduation requirements. High school counselors also frequently reported considering the high graduation program of study and degree requirements when advising students into dual-credit courses. They indicated that a critical part of their role was ensuring that students were enrolling in dual-credit courses that were crosswalked to high school diploma requirements or their selected high school endorsement area. As one high school counselor explained, “If the student is a sophomore, for example, U.S. history is part of the 10th grade curriculum in the high school, so what we would try to do is swap out what they would take at the high school level for the equivalent dual-credit class.” Some college advisors also reported considering high school graduation requirements, but largely relied on the high school counselors to monitor students’ progress in satisfying those requirements.

Counselors working in high schools that offered a wider variety of course options, including CTE dual credit in addition to academic dual credit, described a higher level of involvement in counseling students into certain courses. In these cases, counselors described meeting individually with students to help them decide which courses best fit their interests, college, and career aspirations and to counsel them into courses that mapped to earning an associate’s degree or a certificate in a certain field. As one counselor put it, “We don’t mandate just a menu of classes, complete menu for everyone. We individualize it. So students sign up for classes then they have a three-to-four-week where we’re actually making class option changes, and we discuss with them if they have questions about why they should choose dual-credit over a regular AP class or vice versa.”

⁸ <https://www.naviance.com/>

Grade level. Counselors and advisors frequently indicated that students' grade level either dictated or strongly informed which courses they guided students into. In many cases, grade was used as a sort of proxy for determining students' academic readiness for certain courses, their maturity or preparation for the rigors and expectations of particular dual-credit courses. Freshmen and sophomores typically had less choice than juniors and seniors (if they were allowed to participate in dual-credit courses at all per district policy) and in some cases no choice. For example, one high school counselor explained how very little advising occurred for ninth and 10th graders because they were in sheltered classes "that are basically picked for them." Others noted that freshmen pursuing dual-credit education were automatically placed into a Learning Frameworks course to orient them to dual credit and get them use to the structure and expectations of dual credit.

Many other counselors and advisors working with freshmen and sophomores also described how grade level was used to place students into courses that they believed would "ease" their transition into dual-credit education or against specific courses that may be available for them to take. As one respondent stated, "I would never let a freshman take an economics course or a psychology course. I probably wouldn't even let a sophomore take a psychology course just because of the demand, and the rigor, and just the content of the subject." Another counselor stated, "We want to make sure that we get the students in the correct courses and if they can handle the course load along with being a high school student and whatever else activities they're enrolled in. We generally give them the easier classes at first semester...and see how they do with it. That way, we can always [recover] their credit if something were to happen." Likewise, a few respondents indicated that they guide freshmen away from taking any online course offerings because of the maturity level they believed was necessary for success in these types of learning environments

One counselor working with CTE dual-credit students also indicated new CTE dual-credit students (typically sophomores) were counseled into an exploratory class designed to provide an overview of the four CTE dual-credit programs available to students. According to the counselor, they recently switched to this approach because they found the vast majority of their students were selecting welding as a default, without having a full understanding of the work and career opportunities of the other fields, such as air conditioning and electrical and machine maintenance. Another counselor reported counseling younger students into the general core classes because "they aren't ready to declare a major" and to start mapping their dual-credit courses to a specific degree track.

Indeed, many counselors indicated that because juniors and seniors were typically more certain of their postsecondary plans, they provided more targeted counseling. As one counselor described, “grade level plays a big role, not so much with their first 6 to 12 hours. Because a lot of students, they’re going to take the first two history and the first two English, which is pretty much basic for everybody...But once we get past 9 to 12 hours, again then we’re going to start being a little more careful because we may do government, [but] not do Texas government [if] they’re going out of state.” Others noted that they advised juniors and seniors differently than younger students because of the greater number of courses available to juniors and seniors and, thus, the greater risk for excess credit. In addition, counselors and advisors indicated that less frequently considered factors were students’ academic performance in prior dual-credit courses and course load and extracurricular activities.

Students’ academic performance in previous dual-credit courses was raised as a key consideration among close to half of the high school counselors and a small number of college advisors. Some partnerships had stipulations in place that would not allow dual-credit students to take certain classes or continue in dual-credit programs if they were performing poorly. For example, one partnership did not let students sign up for another course in a specific discipline if they did not make a C or higher in one of the discipline-specific classes. Although students could try to take the course again, the counselor indicated students were often advised against doing so because they saw it as a risk to earning credit and to graduation. Similarly, a college advisor for another partnership reported that, for struggling students, “We might have a conversation with them about maybe transitioning to more of a general studies track where they would still complete the associate’s degree and the core curriculum, but maybe not necessarily that life science or mathematics major with us.”

Others reported that they reviewed students’ performance in dual-credit classes to determine whether to counsel them into academic support services. In some cases they referred students to the support services available on the college campus, including free tutoring and student success centers; in other cases, particularly at ECHS schools but not exclusively, students were counseled into academic intervention services available on the high school campus.

Advising Challenges

High school counselors and college advisors described challenges related to high school students' academic and emotional readiness for dual-credit education, the latitude given to students in dual-credit course selection, and the limited time they had to fulfill all of their dual-credit advising responsibilities.

High school counselors and college advisors reported a wide variety of challenges they experienced in advising students into dual-credit education or into specific dual-credit courses, describing some as relatively minor and others as more problematic. Addressing students' academic and emotional readiness for dual-credit education was the most frequently shared challenge, particularly among high school counselors. Approximately half of the high school counselors and about one third of the college advisors reported this challenge, but experienced it in different ways. Some, for example, experienced this type of challenge primarily during the registration process. Counselors and advisors described having to constantly remind students and parents to complete and submit their dual-credit paperwork in time and attributed this challenge with parents and students failing to understand the more rigid structure and requirements of college compared to high school. Or, in some cases, high school counselors talked about having to do the work for the students, which they perceived as harming the student in the long run. As one counselor noted,

It places a lot of the responsibility off of the students and puts it back on me. I think the students lose those—they lose that experience of their college because it's still all being done for them just like we do for high school...they're missing out on that college experience of you have a deadline, you have to get in there and choose your class, and get yourself registered for it."

Many others reported that it was difficult to effectively communicate to parents and students the importance of emotional maturity and the ability of students to responsibly conduct themselves in college classrooms, meet instructor expectations for academic performance and engagement, and responsibly manage interactions and communications with the instructor. This finding is consistent with the results of the previous Phase I study of dual-credit education in Texas (Miller et al., 2017), which also highlighted some concerns among community college respondents about the undue pressures placed on students to enroll in dual credit even if it might not be for the best for the student, especially for students who may need time to further develop their sense of responsibility and maturity (Miller et al., 2017).

According to counselors and advisors, feeding into this challenge was the various factors that push students into dual-credit education even if it is not the best fit. These factors included parental pressure, the weighting of dual-credit courses with respect to class rank and GPA, and students' feeling compelled because their peers were enrolling. One college advisor noted, for example, "students get points toward their class ranking or they're distinguished being towards valedictorian, salutatorian by taking these dual-credit classes. The more they have, I guess the better the points are and so they're concerned with being top in their class." A high school counselor also reported,

I think that students and their parents are really very interested in dual credit. It's been sold to them as a cost-effective measure to help them pay for their college, but I don't think we spend enough time talking to them about the maturity that it requires, the attendance that it requires, how it can negatively affect their degree plan on the college level if they have too many hours.

It is important to note, however, that as found in the Phase I study, the majority of the respondents in this study did not explicitly mention students' underpreparedness or immaturity as a challenge, suggesting that most high school counselors and college advisors believe that the majority of high school students participating in dual-credit programs are meeting college-level course expectations.

Nearly one quarter of both high school counselors and college advisors indicated that the sheer number of dual-credit courses available to their students to choose from challenged their abilities to guide students into efficient course-taking pathways. These counselors and advisors were working under partnerships that placed few limits on dual-credit course offerings and the number of courses students were allowed to take. These respondents suggested that this approach to dual credit compelled students to take as many dual-credit classes as available and were of interest, even if they were not likely to transfer to a specific degree. They reported instances where high schools wanted to offer more elective-type classes such as "two or three classes in mathematics or four classes of Spanish throughout the year because they have people on their campus that are eligible to teach those and like teaching them and so they offer them." One college advisor noted as another example,

[The high school] had a handful of students who finished their associate's degree at the same time they graduate from high school, and when you look at their degree plan and the course selections that they've taken, their electives are all over the place. It's an art appreciation, it's a music appreciation, it's a theatre class. They don't fit within a one-degree plan that a four-year institution would offer unless it is just a general studies

degree. Those students pay college tuition, they went through the course, and wherever they're going to transfer to, their four-year institution is going to utilize some of those credits, but they're not going to be able to utilize all of those credits.

The third most frequently reported challenge, by approximately one quarter of high school counselors and college advisors each, was the lack of time to complete all of their responsibilities and provide the individualized counseling they felt was needed. Respondents cited various reasons for these time constraints, but frequently reported that the logistics of registering dual-credit students, monitoring and tracking student progress, and coordinating activities with their dual-credit partners were very time consuming. In some cases, counselors or advisors did not just focus on dual-credit students, so they had to balance their dual-credit advising with the other roles they played. Time was particularly problematic for counselors serving large numbers of students and in schools where the dual-credit student population had grown in recent years. As one high school counselor reported, "We've grown from seven dual-credit graduates to 90 last year. We forecast to go over 100 this year. I think as we grow, the resources that are available now, we may need to change because we're not advising 20 students in dual credit anymore. We're advising over 500 or close to it." Other counselors serving large numbers of students frequently indicated that it was not possible to meet individually with all of the students interested in dual credit or taking dual-credit courses, although they perceived that students could benefit from more independent counseling sessions. This issue of time has been raised in previous research on dual-credit education and similarly found that high school counselors perceived the work of managing dual-credit programs, including the recruiting, advertising, communicating with postsecondary institutions, finding instructors, monitoring financial aid opportunities, and tracking grades, as a full-time job in itself (Piontek et al., 2016).

A couple of other challenges were raised by small numbers of high school counselors and college advisors, but these were typically described as relatively minor. Course scheduling and coordinating dual-credit courses with high schools' calendars was one. This reported challenge is consistent with the Phase I study finding that community college dual-credit coordinators encountered challenges related to the differences in the way colleges and high schools schedule courses and other logistics, such as bus schedules (Miller et al., 2017). In addition, the distance between the high school and college partner was raised as a minor challenge, most often when the high school partner was rural.

Suggestions to Improve Student Advising

According to respondents, greater clarity on credit-transfer policies, early advising, more college-advisor involvement, and robust training could improve student advising.

Greater clarity on credit transfer policies. Nearly half of the high school counselors and about one quarter of the college advisors sought more guidance and clarity on credit-transfer policies. Although these respondents reported having sources they could turn to for this information, primarily college websites and the Texas course numbering system, they would have preferred a more streamlined and uniform process for finding transfer policies, particularly transfer to a specific degree. Many reported that university websites were hard to navigate and sometimes not up to date. Others noted that while many of the dual-credit courses often transferred, they transferred only as electives and not to specific degree tracks, so more degree-specific crossover documents are needed. One high school counselor, for example, stated,

If I had, for every public college in Texas, a site where I could do and print off core curriculum, “Here are the courses you’re going to take. If you’re going to major in architecture, here’s a plan. Here’s your course descriptions and your plans.” I want to be the one to help the student make a choice or give them the information, but finding it and getting it in their hands so that they can understand it and take their time with it is challenging.

Many others reported wanting a similar sort of crossover document that would include information for specific majors and what they require. A potentially promising practice was described by one high school counselor who attended an event at the community college partner where a number of four-year universities were on-site to share information. Each university had its own station that students could visit and receive credit-transfer guide sheets for specific majors. A few college advisors also suggested that policies that required better alignment between the college and high school curriculum could lead to a greater likelihood of credit transfer and reduce the risk of excess credit.

Early advising. Approximately one quarter of high school counselors and college advisors each suggested a need to start advising students earlier about dual-credit education and dual-credit pathways into college. They indicated that students and their families would benefit from an introduction to dual-credit education options as early as sixth to eighth grade, depending on when students became eligible for dual-credit education in their districts. According to these

counselors and advisors, earlier advising that includes career exploration would better prepare students and families to make more strategic decisions about dual-credit education, including decisions about whether and when to pursue dual-credit education, and whether to take dual-credit or AP courses, depending on the student's maturity level, academic record, and postsecondary plans. This need to build career exploration into early advising practices was particularly emphasized among respondents. Although counselors and advisors noted that they did not want to "pigeon-hole" students into a particular major or degree path, they indicated it was important to "capture them earlier...and talk to them more about career and what their goals are after high school." As one college advisor that was supporting an initiative to promote earlier advising stated,

We're not trying to move the freshman and sophomore year of college in to the senior high school—we're not trying to shift college down a grade, if you will, but what we are trying to do is get the appropriate information to students earlier so that they can make more important decisions about the high school plan and what courses that they could—should take for dual-credit if that's what they want to do.

One high school counselor described a potentially promising approach to supporting students' dual-credit decision making. The school required students to participate in a mentorship program at the end of their junior year and one at the beginning of their senior year, "so they get an opportunity to work with some person out in the community who is in the field that they are interested in looking into. So, they get some practical experience just to help them."

More college advisor involvement. Many respondents indicated an interest in having college advisors play a more direct role in the advising process, either to fill gaps in the counselors' knowledge about what courses would map to a specific degree or certificate or to bring the college-level presence and perspective to the conversation. One counselor described the value of having a college advisor speak directly to students saying, "[The students] hear us tell them the same thing over and over, year after year, but when another outside person comes in and sits with them from the university, it's very eye-opening for the students." Similarly, other respondents further indicated that having a college presence helps "put a face to the university," gives more weight to the guidance students receive and allows for more strategic and informed dual-credit advising. As one high school counselor noted when asked about suggestions for improving advising: "I would like to see more involvement from the college actually coming to our high school campus and sitting down with students and working with students independently...I've always felt like that role and that responsibility should be coming more from the community college."

The college advisors shared this sentiment, indicating that dual-credit student advising would be improved if they had opportunities to engage students in individualized advising sessions, or at least had more face time with groups of potential or admitted dual-credit students to share information and guidance from the college perspective. One advisor raised a related, but slightly different concern. She estimated that 90% of the advising responsibilities fell on the high school counselors and stated, “They’re so overwhelmed just trying to do the high school portion, and adding [dual-credit] is pretty burdensome. We’re really hoping to provide some extra support with our advisors so that that weight isn’t completely on them.” Similarly, the college advisor for another partnership reported that they were in the process of hiring a dual-credit pathways coordinator who would be more involved in directly advising students to improve their postsecondary pathways and success. She noted, “The whole point of this new position is to become much more intentional in our pre-advising, our working with the student as they make those decisions, and then the post-advising, to make sure that we get them to that next step in higher ed, whether it’s community college or university.”

In the absence of a dedicated college advisor on campus, counselors recommended mandatory sessions with college advisors at the college campus or by phone so students could hear from college advisors directly. For rural sites or partnerships where in-person, individualized counseling was not an option, one counselor suggested virtual advising sessions with the college advisors, particularly when students change their plans and need more individualized advising to reduce risks of excess credit and extra time to degree. Similarly, a college advisor suggested using ITV to conduct an orientation session for newly admitted dual-credit students,

just like we do our regular freshman coming in. I think that’s probably something that’s been lacking with all our partners.... These are actually full-fledged accepted South Plains College students, and they need that orientation. They need to know how we do everything in our departments, and what’s expected of them as college students, and how you’re successful on an online class.

Another college advisor also emphasized that more formal orientation sessions for new dual-credit students would be a benefit, especially to stress with students that college advisors are available to them on the college campus and can be a service to them. Ideally, however, this advisor stated that she would prefer having multiple days per week at the high school campus to hold advising sessions with students because students had such limited time on the college campus outside of attending their classes.

Robust Training. Overall, college advisors and high school counselors praised the relationship they had with their partners and the extent to which they were able to seamlessly share

important information and get the answers they needed related to student participation in dual credit. However, some advisors and counselors mentioned that they felt that they could better coordinate advising activities with their partners if there was greater clarity about their respective roles. Frequently in these instances, multiple people were involved in the process on both sides. One college advisor raising this challenge explained, “There’s just so many people involved that sometimes things—one person thinks one person’s handling something and one person thinks it’s somebody else.” Similarly, other advisors talked about how more role clarity would help streamline the coordination of activities and also better support students’ needs by helping establish a shared understanding between partners about the purpose of dual-credit for high school students, how it can best benefit them, and how to get them on a more strategic dual-credit path early on.

Few high school counselors reported receiving any training from the college or another entity on how to advise dual-credit students and close to one quarter of the high school counselors and nearly one third of the college advisors indicated that having well-trained, dedicated dual-credit advisors would improve student advising. The lack of training was particularly problematic when there was turnover in counseling or advising staff. For example, respondents noted that when turnover occurred, they struggled to work with inexperienced counterparts who were not familiar with the specifics of dual-credit education and the partnership or to get used to new role expectations. As one college advisor explained, “Every year, it’s a full new staff...if you can imagine the complexities of trying to learn a high school counseling job, especially if you’re coming from an elementary or something, different background and the complexities of that, and then we go, ‘Oh, by the way, you learn everything about college, dual credit.’” Similarly, another college dealing with recent turnover in high school counseling staff indicated the challenges of working with a new team, stating, “A lot of the information is just assumed that everybody knows it, but we have people coming from all different places and different backgrounds, and I do think refreshers on that information would be very just helpful.”

Among those that reported receiving training, a few described participating in formal meetings or sessions coordinated by their college partner. One counselor, for example, reported that the college held biannual meetings with all of their high school partners that involved the college vice president, a representative from admissions, the counseling office, and, on the high school side, the high school counselors and principal.

Most, however, described more informal “training” environments, such as meetings with their college partner to learn about new updates or changes in policies and college procedures related to the dual-credit partnership. For example, one college advisor met with the CTE

education director at the partner high school and her group of counselors annually to speak to them about the courses that were going to be available for dual credit, and the requirements there would be for the students to be able to enter the dual-credit CTE programs.

On the college side, advisors rarely reported attending any trainings specific to their partnership, a few indicated attending workshops by THECB that focused on dual credit, including any changes or updates related to dual-credit education policy or practice. One college advisor found these trainings, coupled with the follow-up trainings and meetings conducted by her institution's administrators as very valuable. She stated that as a result of these trainings, "I feel like we're given a lot of tools and support so that we're knowledgeable in advising."

This recommendation stemmed partly from the previously reported challenge of not having enough time to fulfill their duties and provide individualized student counseling. Several commented on the need for dedicated dual-credit advisors and counselors to adequately serve dual-credit students, particularly because of the rapid expansion of dual-credit education in the state. As one high school counselor stated, "Dual credit is becoming the norm clearly in our environment here. It's spreading like wildfire. There are so many counselors out there that are so unequipped in being able to handle this."

Coupled with having committed dual-credit staff, several of the respondents emphasized the importance of more robust training for counselors and advisors. A few respondents indicated that counselors and advisors would benefit alike from training on how to identify a good student candidate for dual-credit; specifically, as one college advisor suggested "having some more strategic guidelines on what is or what isn't the appropriate type of student to start into those college courses." "

Conclusions

In this chapter, we examined dual-credit student advising processes and procedures, as reported by 50 high school counselors and 52 college advisors working in a variety of dual-credit education partnerships and contexts. Following, we summarize our key findings in each of the topic areas we examined:

Students targeted for dual-credit education. All respondents indicated that they targeted students for dual-credit programs based on district policies for dual-credit and the MOUs that were in place with their partners. Within these parameters, there was some variation in the extent to which high school counselors and advisors actively recruited or encouraged certain types of students to apply. For example, some schools strongly encouraged all students to

participate in dual-credit education, while others were more selective, targeting only those students who were excelling in their high school classes and demonstrating high levels of emotional maturity. Schools serving disadvantaged populations, had a clear focus on access and encouraging all students to participate in dual-credit education.

Roles of high school counselors and college advisors. The majority of high school guidance counselors played the primary role in advising dual-credit students, with one quarter sharing this responsibility with college advisors. College advisors typically played a secondary role, serving as the key point of contact for high school counselors and sharing information about dual credit with prospective students and their families. They became more involved, however, in special circumstances, including in the case of “accelerated students” or advising outside of the core, CTE dual-credit programs, freshmen and sophomores, and poor performance.

Coordination of advising activities. Overall, high school counselors and college advisors described close working relationships, most commonly to coordinate school visits and dual-credit information sessions, registering students, and course scheduling. They coordinated efforts related to students’ application materials, registration, course scheduling, and transcripts and grades. Many counselors and advisors reported that they worked with each other to develop materials, such as degree maps and course crosswalks, to help counsel students into certain courses or to help monitor and track students’ progress toward meeting their high school graduation requirements or an associate’s degree.

Course-taking considerations. High school counselors and college advisors most commonly reported considering students’ postsecondary plans and likelihood of credit transfer when advising students into dual-credit courses. In addition, counselors and advisors frequently indicated using grade level as an indicator of students’ readiness for certain courses. High school counselors also commonly reported guiding students into dual-credit courses that crosswalked to high school degree requirements or students’ selected high school endorsement areas.

Advising challenges. High school counselors and college advisors expressed challenges related to high school students’ academic and emotional readiness for dual-credit education, the latitude given to students in dual-credit course selection, and the limited time they had to fulfill all of their dual-credit advising responsibilities.

Suggestions to improve advising. High school counselors and college advisors suggested that greater clarity on credit-transfer policies and course alignment, starting the advising process earlier, more involvement from the college partner, and greater clarity in advising roles and having well-trained and dedicated dual-credit staff could improve student advising.

Chapter 3. The Academic Rigor of Dual-Credit Courses

Academic rigor is the focus of many debates around the quality of dual-credit courses (Baker, Burnett, & Ferguson, 2015). The concept of academic rigor is consistently brought up in dual-credit discussions, yet there is no consensus on how to define it (Winston et al., 1994; Braxton, 1993; Hechinger Institute, 2009; Wagner, 2008; Blackburn, 2008). With enrollment in dual-credit courses increasing, a common understanding of academic rigor is necessary to ensure all dual-credit students have access to similar expectations and instructional methods.

Phase I of the study uncovered systematic differences in instructor characteristics across dual-credit and college-credit only courses, which highlighted the need to determine the extent to which dual-credit students are held to the same academic standards as students in college-credit only courses (Miller et al., 2017). In response to this need, we designed a study to assess whether there are systematic differences in course content, assessment methods and standards, and teaching approaches between dual-credit and college-credit only courses. For this study we answered three questions:

RQ 1 What are the similarities and differences in the content and skills being offered in dual-credit courses and college-credit only courses?

What are the similarities and difference in the instructional practices being used in dual-credit courses and college-credit only courses?

What are the similarities and differences in how instructors of dual-credit courses and college-credit only courses assess student learning and student performance?

Given the large number of dual-credit programs and breadth of dual-credit courses being delivered in Texas, we decided to focus our efforts on two of the most common DC courses: English Composition I (English 1314) and College Algebra (Math 1314/1414). For each course, we attempted to recruit a sample of four faculty members delivering the course in three different settings:

RQ 1 As an entry-level college course taught by college faculty (CC),

As a dual-credit course taught on a college campus (DC), and

As a dual-credit course taught by a credentialed instructor on a high school campus (HSDC).

The findings presented in this chapter contribute to a stronger understanding of the commonalities and differences in academic rigor between college-level courses and across the primary dual-credit course delivery contexts and settings presently being used in Texas (DC and

HSDC). These findings can help policymakers identify where improvements in ensuring consistency in course rigor can be made to promote the long-term success of all dual-credit students in postsecondary pathways.

Organization of This Chapter

The remainder of this chapter is structured as follows: We begin by describing each of the four dimensions along which we compare courses in terms of their academic rigor. Next, we describe the process we used to recruit faculty to participate in the study and the data we collected from them. We go on to describe the protocol we used to assess courses. Finally, we report our findings on the similarities and differences in the four dimensions above across course settings for English 1301, and Math 1314/1414, respectively.

Research Design

In this section, we describe how we conducted this study. Specifically, we report information about how we define academic rigor, our instructor sample, the data collected from sampled instructors, and the process we used to examine rigor along these five dimensions.

Study Definition of Academic Rigor

There is no consensus on how to measure the academic rigor of a college-level course. Thus, it was necessary to develop a proxy to evaluate the extent to which dual-credit students are consistently receiving college-level instruction. To inform our work, we consulted the literature on academic rigor in mathematics and English language arts and identified four course dimensions that, together, serve as a reflection or gauge of academic rigor:

RQ 1 Content—The topics or domains of knowledge taught in a course

Demonstration of skills—The content specific skills students are asked to perform

Instructional strategies—The techniques or methods teachers use to help students reach their learning objectives

Assessment of student learning and performance — The strategies instructors use to determine student understanding of the content and the demonstration of knowledge.

We recognize that this definition is limited and does not encompass all of the materials and mechanisms instructors use to teach content and skills (e.g., it does not include course materials such as textbooks and other assigned readings).

Instructor Sample

With support of THECB, we identified a point of contact from an initial sample of 15 community colleges and 10 four-year institutions in order to identify HSDC, DC, and CC instructors who taught Math 1314/1414 and English 1301 in the 2017 fall semester. These contacts, who were department chairs, deans, provosts, and chief academic officers, then chose high school and college-level instructors who fit our selection criteria. After obtaining contact information, we sent out an e-mail to each selected instructor asking for their consent to participate. Because this study is exploratory, and because of resource constraints, we set a goal of recruiting at least four instructors from English 1301 and Math 1314/1414 across our three course types, so a total of 24 faculty members.

In total, we secured 22 individuals from 17 HEIs, which included one four-year institution and sixteen community colleges across Texas. Table 3.1. provides the number of instructors who participated by the type of course they taught.

Table 3.1. Total Amount of Participants for Each Course Type

Course Type	English 1301	Mathematics 1314/1414
College-Credit Only Course Taught by College Faculty (CC)	4	3
Dual-Credit Course Taught by College Faculty (DC)	4	4
Dual-Credit Course Taught by a High School Teacher (HSDC)	3	4

Data Sources

From each instructor, we attempted to collect: (1) the course syllabus, (2) a set of detailed assignments given to students at three different times points of the academic year, and (3) graded student work, which represented the full spectrum of grades (e.g., A, B, C, and F [or D if F not available]) that responded to the assignments that we collected. We also developed and

administered a faculty survey to capture information about instructional practices, the types of assessments used to assess student learning, and content covered in the course.

Following, we describe the data collected from each source and why we considered it an appropriate source to assess content, the demonstration of skills, instructional strategies, and the assessment of student learning and performance. As mentioned previously, these course materials, individually and combined with instructor survey data, provide a holistic view of the level of academic rigor and commonality of rigor across the course delivery settings of interest.

- *Course Syllabi:* Course syllabi contain information about the topics the instructor teaches in the course and the skills that students are required to demonstrate in order to receive course credit. Data collected from the course syllabi analysis allowed us to compare the types of topics and skills instructors covered in a course and to gauge whether or not students in all course types have opportunities to engage with similar content and skill expectations.
- *Student Assignments:* We analyzed multiple assignments from English 1301 and Mathematics 1314. Data collected allowed us to compare the level of rigor of instructor expectations of students across course types. We asked instructors to upload one assignment/assessment on specific commonly taught topics in English and mathematics. English instructors uploaded a synthesis, a persuasive essay, and a final exam. Mathematics instructors uploaded a chapter test on polynomials and rational functions, a chapter test on exponential and logarithmic functions, and a final exam. We chose these topics from the initial review of syllabi, choosing one taught earlier in the semester, one from mid semester, and one from the end of the semester.
- *Graded Student Work:* We analyzed graded student work samples to compare how instructors graded students' level of mastery within and across course types. We asked instructors to submit an "A" or "B" sample of student work, a "C" and an "F" (or "D" if they did not have an F assignment) connected to the assignments mentioned above. We asked a varied set of samples so we could analyze different levels of mastery to determine if instructors were grading in similar ways. These data allowed us to compare the similarities and differences in the grading of student performance across course types in Mathematics 1314 and English 1301.
- *Instructor Survey:* We administered a survey to collect information about the amount of time instructors across all three course types dedicated toward using specific instructional strategies, teaching common content topics, and employing different assessment methods.

We also used data collected from the instructor survey to check whether content reported in the syllabi was actually being delivered in practice.

Table 3.2 summarizes the course materials we attempted to gather from each participating instructor.

Table 3.2. Instructor Materials Collected for Study

COURSE SYLLABUS	ASSIGNMENTS	STUDENT WORK SAMPLES
Final course syllabus that satisfies the requirements of Texas HB 2504	English <ul style="list-style-type: none"> Synthesis essay Persuasive essay Final exam Mathematics <ul style="list-style-type: none"> Chapter test on polynomials and rational functions Chapter test on exponential and logarithmic functions Final exam 	For each academic assessment, student work samples were submitted: <ul style="list-style-type: none"> First sample: Scored an A or B Second sample: Scored a C Third sample: Scored an F (or D if you do not have a sample scoring an F)

Once we recruited instructors from all three course types, we sent them an e-mail with information about the types of data we sought to collect. Specifically, we asked each recruited instructor to complete a survey and upload syllabi, student assignments, and graded student work samples to an online data collection system. Table 3.3 shows the number of materials collected from instructors from each course type.

Table 3.3. Data Collected From Participants

English 1301—English Composition				
	Survey	Course Syllabus	Student Assignments	Graded Student Work
CC	4	4	6	18
DC	4	4	13	32
HSDC	3	3	9	21
Overall Totals	11	11	28	71

Math 1314/1414—College Algebra				
	Survey	Course Syllabus	Student Assignments	Graded Student Work
CC	3	3	9	16
DC	4	2	6	17
HSDC	4	3	12	36
Overall Totals	11	8	24	53

Note. Three Math 1314/1414 participants (two DC and one HSDC) took only the survey and did not upload documents.

Metrics Used to Evaluate Academic Rigor

To assess course rigor across the four dimensions mentioned earlier (content, demonstration of skills, instructional strategies, and assessment of student learning and performance), we developed a protocol, adapted from David Conley’s work in *Getting Ready for College, Careers and the Common Core* (2014), the Learning Sciences Marzano Center list of 13 Essential Strategies for Rigor, and Part A of the Surveys of Enacted Curriculum in Mathematics and English Language Arts, which was reviewed by three external experts (Conley, 2013; Marzano & Toth, 2014; The Wisconsin Center for Education Research 2012a; 2012b). We pilot tested the protocol with a team of four independent reviewers, and then each study team reviewer assessed the course materials independently without knowledge of the course setting (i.e., CC, DC, or HSDC). We then systematically coded the course data we collected and distilled information to identify similarities and differences across course settings. This approach allowed us to paint a rich picture of the content and skill expectations, instructional strategies, assignments and assessment methods, and graded student work employed across course settings in English 1301 and Math 1314/1414 and allowed us to objectively compare academic rigor across those settings.

Following, we describe the frameworks and sources we use to measure each dimension of academic rigor and explain how we applied them within the context of this study.

Content and the Demonstration of Skills

We established a baseline for what is taught in college-level Math 1314/1414 and English 1301 based on two data sources:

- *College Algebra and English Composition Syllabi*: We reviewed a sample of 20 course syllabi from Math 1314/1414 and English 1301 courses that were available online to identify common topics taught in these courses along with the skills that students were required to demonstrate to receive credit for the course.
- *The Lower-Division Academic Course Guide Manual (ACGM)*: According to the THECB, the ACGM is the official list of approved courses for general academic transfer to public universities offered for state funding by public community, state, and technical colleges in Texas. For all courses listed in the ACGM, the THECB provides a list of student learning objectives (i.e., skills) that students are required to demonstrate to receive credit for the course.

Table 3.4. Mathematics and English Content Areas

Mathematics 1314	English 1301
Polynomials	Text analysis
Rational functions	Source analysis
Radical functions	Research Skills
Exponential functions	Essay/composition development
Logarithmic functions	Idea development
Systems of equations using matrices	Audience, purpose, occasion
Graphing	Stages of writing process <ul style="list-style-type: none"> • invention • researching • drafting
Nonlinear inequities	Thesis statements
Sequences and series	Paragraph construction
Circles	Informative, analytical and persuasive modes of writing
Binomial Theorem	Citation methods and technical aspects of writing identify rhetorical purposes and methods of organization appropriate to topic, thesis, and audience
Number systems	Paragraph construction
Probability	Audience, purpose and occasion

Mathematics 1314	English 1301
Conics	Citation methods and technical aspects of writing identify rhetorical purposes and methods of organization appropriate to topic, thesis, and audience
	Revision strategies (individual and collaborative)

Table 3.5. Mathematics and English Content Skills

Mathematics 1314	English 1301
Critical Thinking	Critical Thinking
Communication	Communication
Empirical and quantitative	Teamwork
	Understand writing process (planning, drafting, revising, editing)
	Making Inferences
	Drawing Conclusions
	Command of grammatical structure
	Develop computer literacy
	Analyze various types of written works
	Analyze purpose, audience, tone, style, and writing strategy when in written works

To assess the rigor of the academic content and skills required of students taught across three course types, we examined survey data and course syllabi from participating instructors.

- *Collected Syllabi:* We reviewed course syllabi to determine whether instructors of CC, DC, and HSDC courses taught common topics and required students to demonstrate specific skills identified in Table 3.5.

- *Instructor Survey:* One component of the survey asked the participating HSDC, DC, and CC instructors to report the amount of time they dedicated to teaching the specific topics identified as common across Math 1314/1414 courses as well as English 1301 courses. Unlike course syllabi, survey data allowed us to determine across the three course types whether instructors actually delivered content reported in course syllabi, and the amount of time they invested in teaching certain content and skills (by dedicating percent of time to the topic or skill over the course of the semester).

What we checked

- Do instructors cover content topics common across the baseline sample of course syllabus?
- To what extent are common content topics being taught by instructors?

Instructional Strategies

To evaluate the rigor of instructional strategies used by instructors across HSDC, DC, and CC courses, we drew on two frameworks:

- *Marzano Center Essentials for Achieving Rigor Model:* This model, developed by Dr. Marzano, an expert in content, pedagogy, and student assessment, evaluates the extent to which instructors teach in ways that meet college and career readiness standards. The 13 instructional strategies included in Marzano’s model represent those that engage students in general higher-order thinking skills (see Text Box 3.1).

Text Box 3.1. Marzano’s 13 Strategies for Rigorous Instruction

Interacting With New Content

- Identifying Critical Content
- Previewing New Content
- Organizing Students to Interact With Content

Practicing and Deepening New Content

- Helping Students Process Content
- Helping Students Elaborate on Content
- Helping Students Record and Represent Knowledge
- Managing Response Rates With Tiered Questioning Techniques
- Reviewing Content
- Helping Students Practice Skills, Strategies, and Processes
- Helping Students Examine Similarities and Differences
- Helping Students Examine Their Reasoning
- Helping Students Revise Knowledge

Cognitively Complex Tasks

- Helping Students Engage in Cognitively Complex Tasks

- *Surveys of Enacted Curriculum in Mathematics and English Language Arts:* These instruments were developed by the Council of Chief State School Officers and the Wisconsin Center for Education Research to examine the alignment between standards, curriculum, instruction, and assessment. We drew on these surveys to identify rigorous instructional practices specifically used in mathematics and English courses.

The instructor survey served as our primary source for assessing the rigor of the instructional strategies used in HSDC, DC, and CC courses.

- *Instructor Survey:* One component of the survey asked instructors to report on the amount of time they dedicated to using the specific strategies included in Marzano’s model, and in the Surveys of Enacted Curriculum in Mathematics and English Language Arts.

What we checked

- Do instructors use rigorous instructional strategies that engage students in general higher-order thinking skills?

- Do instructors use rigorous instructional strategies that engage students in general higher-order thinking skills specific to mathematics and English instruction?
- To what extent are instructors using these instructional strategies in practice?

The Assessment of Student Learning and Performance

Assessment of Student Learning

We drew on two primary frameworks to assess the level of student learning in HSDC, DC, and CC courses:

- *Marzano Center Essentials for Achieving Rigor Model:* In addition to evaluating the rigor of instructional strategies, Marzano’s model can also be used to evaluate the cognitive complexity of student assignments. Broadly, cognitive complexity accounts for practices that will help student engage with content at higher levels of cognitive demand. We specifically used this model to examine the extent to which instructors asked students to engage in cognitively complex tasks. Marzano defines cognitively complex tasks as tasks that require students to (1) engage in decision making that draws on breadth of knowledge and skills, (2) engage in problems solving within different contexts, (3) develop and test hypotheses, and draw conclusions from these tests, and (4) solve dilemmas or puzzles. In other words, these tasks require students to assess their knowledge and skills, and utilize them to solve real-world problems. An example of a cognitively complex task is summarizing news articles about the summer melt phenomenon and designing an experiment to test the effectiveness of an intervention intended to address this problem.
- *Webb’s Depths of Knowledge (DOK) Levels Framework:* Webb’s DOK framework is used to examine the cognitive demand of student assessments (Webb, 2002). We define cognitive demand as the degree of knowledge and level of thinking which students must demonstrate to engage in a specific task. Categorized into four discrete levels, each level reflects a different level of cognitive expectation, or depth of knowledge, required to adequately respond to an assignment. Unlike Marzano’s model, the DOK framework specifically focuses on the depth of understanding that is required of the student, not the design of the actual task (See Text Box 3.2.)

Text Box 3.2. Levels of Depth of Knowledge (Webb, 2002)**Level 1: Recall and Reproduction**

The lowest of all levels, tasks that fall under Level 1 require students to recall facts or perform rote procedures and do not involve the transformation of knowledge. Students who respond to Level 1 tasks know the answer or does not, i.e., does not have to figure it out. Example: Adding two numbers.

Level 2: Skills and Concepts

At Level 2, a student must engage in some mental effort beyond what is needed to recall or reproduce a fact. Level 2 tasks typically require students to classify information into meaningful categories, transform information, explain relationships among other tasks. Example: Explaining how to perform a particular task.

Level 3: Short-Term Strategic Thinking

At Level 3, students must engage in short-term use of higher-order thinking skills. For example, tasks that fall under Level 3 require students to evaluate aspects of a scenario, solve real-world problems, or make an argument for or against a particular position. Example: Developing a questionnaire to gather information.

Level 4: Extended Thinking

Level 4 tasks require students to exert the highest level of cognitive effort. At this level, students demonstrate that they can summarize information from a variety of sources, identify information, come up with new solutions to problems where the outcome is unknown. Example: Designing an experiment that tests a variety of hypothesis.

Adapted from: <http://www.state.nj.us/education/AchieveNJ/resources/DOKWheel.pdf> and <https://www.edutopia.org/blog/webbs-depth-knowledge-increase-rigor-gerald-aungs>

As mentioned previously, we analyzed data collected from student assignments, course syllabi, and instructor surveys to assess how instructors across HSDC, DC, and CC course types assessed student learning, specifically the cognitive complexity of student assignments, and the level of cognitive demand that these assignments demanded of them.

- *Student Assignments:* Instructors from Math 1314/1414 and English 1301 across HSDC, DC, and CC course types submitted specific assignments used to evaluate student learning. We chose specific assignments for English and chapter tests for mathematics due to the nature of instruction and content. College-level mathematics courses do not always collect specific assignments, but all three types of courses do conduct chapter tests. We chose one assignment that would be taught earlier in the semester, one from midsemester and one from the end of the semester. For each assignment we collected, we examined the extent to which tasks within that assignment could be considered cognitively complex and required students to demonstrate higher levels of depth of knowledge. See Appendices F and G for the rubric used to assess the cognitive complexity of student assignments and the cognitive expectations that these assignments demanded in mathematics and English.
- *Course Syllabi:* We identified what types of assignments instructors gave students as reported in course syllabi. For example, we examined whether instructors in HSDC, DC, and CC courses assigned problem sets or gave quizzes to students enrolled in Math 1314/1414.
- *Instructor Survey:* One component of survey asked instructors to report on the types of responses tasks within student assignments elicited. For example, the survey asked instructors to report the percentage of course assignments that used multiple choice responses versus those that required students to explain or justify a response.

What we checked

- Are assignments given to students cognitively complex?
- Do assignments require students to demonstrate higher levels of depth of knowledge?
- What kinds of assignments do instructors give students? And what kinds of responses do they elicit?

Assessment of Student Performance

The graded student work we collected from instructors represented nearly the full spectrum of grades that could be awarded (i.e., grades A, B, C, and F [or D if an F-graded sample was not available]). To assess the extent to which the instructors in our sample consistently awarded A, B, C, and F (or D) grades to student work of the same level of cognitive development and competence, we drew on the Novice-to-Expert Continuum, which we describe in more detail later.

- *Novice-to-Expert Continuum*: Developed by David Conley, an expert in college readiness, the Novice-to-Expert Continuum is a seven-level scale that assesses a student’s cognitive development and learner competence around six key concepts: (1) insight, (2) efficiency, (3) idea generation, (4) concept formation, (5) integration, and (6) solution seeking (Conley, 2013). Instructors can use this continuum to assess the level at which students demonstrate competence along these six concepts.

For each graded student work categorized as an A or B, C, and F (or D) across the three course types, we examined whether the student had exhibited competencies embodied within the seven levels of the Novice-to-Expert Continuum. For example, we assessed whether student work given an A demonstrated the ability to apply knowledge gained in the course to other contexts. In other words, did the student demonstrate a trait characteristic of an “Emerging Expert” (highest level of the continuum)? To be categorized under a certain level, students had to exhibit a majority of traits characteristic of that level. We adapted Conley’s continuum for the purposes of the study.⁹

⁹ As one of our external reviewers, Dr. Conley reviewed and approved our adaptation of the Novice to Expert Continuum for this study.

Table 3.6. Novice-to-Expert Continuum (Conley, 2013)


Levels	Concepts
Emerging Expert	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply knowledge in a variety of contexts <input type="checkbox"/> Holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Abstract thinking and strong ability to synthesize and integrate information <input type="checkbox"/> Developed “Conceptual understanding”—the why
Accomplished Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply abstract thinking, ability to synthesize and integrate variety of sources and information <input type="checkbox"/> Command of “conditional knowledge”—the when—when to apply the knowledge <input type="checkbox"/> Developing holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Developing “conceptual knowledge”—the why
Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Able to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Deep understanding of subject matter <input type="checkbox"/> Developing abstract thinking, analytical skills and ability to synthesize/integrate information <input type="checkbox"/> Developing command of “conditional knowledge”—the when—when to apply the knowledge
Emerging Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Developing ability to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Able to analyze information and discern patterns in information due to familiarity with subject <input type="checkbox"/> Command of “procedural knowledge”—the how
Accomplished Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Connecting subject matter to big ideas, aware of complexity of subject <input type="checkbox"/> Developing contextual knowledge <input type="checkbox"/> Meets basic expectations and guidelines <input type="checkbox"/> Ability to interpret and apply information <input type="checkbox"/> Demonstrates “declarative/descriptive knowledge”—the what
Novice Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Superficial understanding of subject area, concept formation, solution seeking skills <input type="checkbox"/> Developing ability to interpret and discern rules and guidelines regarding basic standards
Emerging Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Limited background in subject area, minimal contextual understanding of subject <input type="checkbox"/> Developing ability to meet basic standards and requirements

What we checked

- To what extent does student demonstrate characteristics/competencies identified within each level?

Data Analysis

AIR researchers identified the similarities and differences in content and skill expectations, instructional and assessment practices, and student performance across courses through a systematic analysis of the data. Four AIR researchers reviewed 22 sets of survey data, 19 syllabi, 52 assignments, and 124 student work samples for the purposes of the study. The researchers were trained to use the online protocols, using sample syllabi, assignments, and student work samples. The researchers conducted an initial analysis of the samples and then came together to discuss and calibrate findings. Researchers then examined the uploaded data; two researchers focused on the English syllabi, assignments, and student work samples, and two researchers concentrated on the mathematics syllabi, assignments, and student work samples. Two researchers examined each syllabus separately and later compared their responses and categorizations to reconcile any differences and produce one agreed upon representation of what was included in each syllabus. This then allowed for a baseline comparison of academic expectations among courses in the different modalities. Each assignment was reviewed by a single reviewer. After reviewing all assignments, the researchers who examined the English assignments met to ensure they had been using similar definitions of terms and were categorizing items similarly; likewise for the researchers working on mathematics assignments. The process for reviewing the 53 mathematics and 71 English student work samples was similar to the assignment review process. Each student work example was reviewed once by a single reviewer, and after examining all examples, researchers working in the same subject areas conferred to discuss any differences in approach or rating.

In April 2018, researchers came together in a full-day, face-to-face meeting to analyze all of the data collected. Researchers were guided through a collaborative analytic process that focused on understanding the data and data sources, identifying individual findings from each set of sources, and developing main findings based off of recurring patterns and common themes (Maxwell, 2013; Merriam, 1998). Each reviewer was assigned to focus on a specific course type and reviewed each data set from that perspective. Researchers identified individual data points from the data and posted them under the key themes for this part of the study; what is taught (content and skills expectations), how its taught (instructional strategies, assignments and

assessments), and student performance. They then worked in teams to organize the data points into main findings for each content area. These main findings are the basis for this report.

Limitations

The analysis presented in this chapter is exploratory in nature and reflects a relatively small sample of dual-credit and college-credit only courses and course instructors in Texas. In addition, our analysis is not based on any observations of instruction or any measure of quality of instruction. The intent of the study is to provide initial insight into the content expectations, the instructional strategies, and how instructors assessed student learning and performance across different delivery types of dual-credit and entry-level college courses. Although this study is limited in its ability to make definitive conclusions about the similarities and differences in rigor across dual-credit and college-level courses, it provides a model methodology that could be applied in future studies with larger numbers of participants. This would allow researchers to draw stronger conclusions about the rigor of content covered instructional approaches. In addition to a large-scale study, the methodology here could be used by a small group of instructors to ensure standardization of course content, expectations for the cognitive complexity and cognitive demand of assignments, and that students are being graded similarly for demonstrating similar levels of content mastery.

Findings

English 1301—English Composition

Content

All course types focused on essay/composition development, idea development, stages of the writing process, thesis statements, and informative, analytical, and persuasive modes of writing. All syllabi reviewed across course types explicitly stated each of these topic areas would be covered in the course. In addition, the instructor survey data indicated that instructors in all three course types spend similar amounts of time on each of these core topics.

CC instructors had lower expectations around how to write a thesis statement and construct paragraphs compared to HSDC and DC courses. CC had fewer requirements for developing of thesis statements and paragraph construction, while almost all the HSDC and DC syllabi reviewed included explicit guidelines for both. For example, a syllabus collected from a CC included the following statement regarding development of thesis: “identify rhetorical purposes and methods of organization appropriate to topic, thesis, and audience” yet had no

assignments focusing on thesis development. Whereas in one DC syllabus, the expectations regarding thesis statement skills were not only included in the course objectives but were also paired with a reading assignment that explored how to write a thesis statement. Another HSDC syllabus required students to take a thesis statement quiz with a paragraph construction assignment in the first week of classes.

The Demonstration of Skills

Nearly all syllabi we reviewed required students to demonstrate similar skills. When reviewing student assignments, every course type had the same skills listed: critical thinking skills; communication skills; teamwork; understand writing process (planning, drafting, revising, editing); analyze purpose, audience, tone, style, and writing strategy in written works. This finding indicates that across course types, instructors believe that these seven skills are essential to student success in English 1301. Based on our analysis, students at every course level are expected to use the same skills for their English 1301 course work and will gain the same skills throughout the curriculum.

Instructional Strategies

Instructors across HSDC, CC and DC courses reported that they devoted differing amounts of instructional time for students to engage with any one task across course types. Instructors across course types specified spending the highest amounts of time engaging students in reviewing and revising work, and collecting, summarizing, and analyzing information or data from multiple sources, and asking students to engage in the writing process to support arguments with evidence. This correlates with course content and skill expectations for an English 1301 course and is similar to the expectations found in the Surveys of Enacted Curriculum in English. For CC, participation in whole-class discussion about writing and reading exercises was given the second highest percentage of time, while for HSDC instructors reported that students were engaged in computer use to learn, practice or explore writing and reading content, for the second highest percentage of the time. For DC, use of computer was also the second highest percentage of student engagement during instructional time, but not as high as HSDC. On the opposite end, CC instructors gave the lowest amount of instructional time for students maintain a portfolio, DC instructors gave the lowest amount of instructional time for students to present or demonstrate to others, and HSDC instructors gave the lowest amount of instructional time for students to do metacognitive exercises.

Assessment of Student Learning and Performance

HSDC, CC, and DC instructors required students to respond to similar types of assignments.

Quizzes, papers, presentations, and student participation in class were almost always used for assessing student learning and contributed to the overall grade for most courses. The weight attributed to each assignment in determining the student's overall student grade varied; however, we did not find evidence showing that instructors of HSDC, DC, and CC courses used a grading scheme specific to their course type.

There were no differences in assignments' levels of cognitive demand between course types.

In our review of 30 assignments including final exams, persuasive and synthesis essays, we found marked similarities across course types. All prompts for the persuasive essay were rated as meeting the requirements for the third level of cognitive demand, Short-Term Strategic Thinking. At this level, students are asked to engage in short-term use of higher-order thinking skills. For example, tasks that fall under Level 3 require students to evaluate aspects of a scenario, solve real-world problems, or make an argument for or against a particular position. Similarly, all final exams were rated at the fourth level of cognitive demand, Extended Thinking. At this level, students are asked to exert the highest level of cognitive effort. At this level, students were required to demonstrate that they could summarize information from a variety of sources, identify information, devise new solutions to problems where the outcome is unknown.

There were also no differences in assignments' levels of cognitive complexity between course types.

All assignments were rated with similar rankings. For instance, all of the synthesis essays were ranked at the second level of cognitive complexity, which in the scale used was "practicing and deepening new content." The essays reviewed asked students to do more than interact with new content, they asked students to elaborate on content, examine similarities and differences, and examine their reasoning. Similarly, all of the final exams were rated at the third level of cognitive complexity, Cognitively Complex Tasks. The final exams required students to engage in solving a problem, analyzing options, and drawing conclusions.

There were no clear differences in the level of student performance across course types.

In our review of graded work samples, researchers found that the final exam and persuasive and synthesis essays that were graded with an "A" or "B" across course types demonstrated the qualities of the "Strategic Thinker" level of the Novice-to-Expert Continuum. For example, a persuasive essay submitted by a HSDC instructor demonstrated that a student was able to use insight to form a deep understanding of concepts related to specific subject matter, focusing on

concussion protocol in football. Similarly, a persuasive essay submitted by a CC instructor demonstrated that a student was able to apply insight and use analytical skills to synthesize/integrate information focusing on organ donation. Similarly, all “C” work was identified at the “Emerging Strategic Thinker” level and “D” and “F” work was rated at the “Novice Thinker” level across all courses.

Mathematics—What Is Taught

Content

All course types focused on these core components: polynomials, rational functions, radical functions, exponential functions, logarithmic functions, systems of equations using matrices, and graphing. All syllabi reviewed across course types explicitly stated each of these seven content areas. In addition, the instructor survey data indicated that instructors in all three course types spend the largest percentage of instructional time on these core topics. These findings indicate that these were the primary content areas taught consistently across the three course types.

All course types spent minimal or no instructional time focused on circles and the Binomial Theorem. No syllabi from any of the three course types indicated either circles or the Binomial Theorem as a content focus. This was confirmed in the instructional survey, in which instructors across all course types reported spending less than 10% of instructional time on circles content or no time at all. Apart from one HSDC instructor who reported spending between 10% and 25% of instructional time on the Binomial Theorem, instructional survey responses indicated minimal or no time spent on this topic across groups.

Content focused on number systems was more prevalent within CC courses. All the HSDC and DC syllabi we reviewed omitted these content areas. However, number systems content was present in two of the three CC syllabi reviewed. For DC courses, the instructional survey also highlighted a lack of instructional time spent on this topic, with zero instructors indicating 10% or more of instructional time spent on number systems, and three of four indicating that no time is spent at all. For CC courses, instructional survey responses from two of the three respondents indicated time spent on the number systems topic.

Less instructional time was spent on sequences and series in CC courses. None of the CC syllabi review mentioned sequences and series as an instructional topic. These omissions were confirmed by the instructor survey, in which two of three college-entry-level professors indicate no time spent at all, and the third indicating less than 10% of instructional time spent on the

sequences and series topic. Sequences and series were present in all reviewed DC syllabi, along with two of the three HSDC syllabi.

Demonstration of Skills

Presentation and demonstration skills were developed minimally across all three course types. Evidence from the survey responses also indicate that the use of instructional time asking student to present or demonstrate to others is minimal across course types. All respondents, apart from one, indicated that either less than 10% of time or no time at all was used on presentations or demonstrations. One CC instructor indicated that he or she utilizes between 10% and 25% of instructional time asking students to present or demonstrate.

All three course types spent a significant amount of time developing students' skills in technology, computer, and calculator use. Instructor survey responses from across course types indicate that they spend time asking student to *Use computers, calculator, or technology to learn, practice or explore mathematics*. Apart from one CC professor and one DC professor who indicate minimal use of technology, the rest of the respondents across course types reported that technology is used between 10% and 50% of instructional time. In addition, two CDHS professors and one CC professor reported that technology is used during more than 50% of instructional time.

General mathematics skills were consistently and explicitly stated in syllabi for CC courses. Utilizing data from the course syllabi, it was determined that some courses establish expectations for the development of core skills through the students' engagement with the content. The four skills targeted for development include Critical thinking skills, communication skills, empirical skills, and quantitative skills. All four skills were explicitly listed in the CC syllabi, with one referring to them as *"in support of the objectives of the Texas core curriculum."* It was also noted in the same syllabus that *"[t]hese objectives form a foundation of intellectual and practical skills that are essential for all learning."* None of these skills were listed in any of the DCHS, and only one of the DC courses had them listed. The fact that these were explicitly stated in all CC courses and not DCHS courses may signify a standardization of defined skills within Algebra across Texas colleges.

CC instructors spent more instructional time developing reading and comprehension skills. Survey responses indicate that CC courses spend more instructional time asking students to *Read and comprehend mathematics information from multiple sources*, with responses ranging from 10% to more than 50%. Meanwhile, three of four DC professors indicated spending less than 10% of instructional time on the same skill, and the use of instructional time for HSDC

courses ranged from none to 25%. These findings may indicate more complex and varied materials with CC courses.

Instructional Strategies

Compared to DC and HSDC courses, CC courses placed greater emphasis on individual work and more often required comprehension of information from multiple sources. Instructors were also asked what activities they spent their class time on. The potential responses to this question were “None,” “Less than 10%,” “10-25%,” “26-50%,” and “More than 50%.” Table 3.7 shows a weighted average of responses by course type.

These weighted averages are helpful for comparing course types, although it is important to keep in mind that the range sizes of the potential responses from instructors are different. For example, if one instructor responded that they allocated 'Less than 10%' of instructional time for students to work individually, this response would receive a weight of 1. While, if another instructor reported they asked students to work individually during "26-50%" of instructional time throughout the semester, this response would receive a weight of 3. Summing these weights and dividing by the number of responses provides us with a weighted average. In the above example the result would be a weighted average of 2. The difference in the bin size of response options limits us to directional conclusions rather than precise percentage point differences in how instructional time is spent. The highest possible score in each category is 4.

Table 3.7. Weighted Average of Instructor Reported Use of Class Time

	HSDC	CC	DC
Listen to the teacher explain, or observe the teacher demonstrate or model a mathematics procedure or solve a problem.	2.75	2.33	2.25
Read and comprehend mathematics information from multiple sources.	1.25	3	1.25
Collect, summarize, or analyze information or data from multiple sources.	1	1.33	1.25
Present or demonstrate to others.	1	0.67	0.25
Work individually on mathematics assignments.	2	3.33	2.25
Participate in whole-class discussions about mathematics.	2	1.33	1

	HSDC	CC	DC
Work in pairs or small groups on mathematics exercises, problems, investigations, or tasks.	1.75	1	1.25
Use computers, calculator, or technology to learn, practice or explore mathematics.	3.25	2.67	2
Maintain a portfolio of their own work.	1	0	0.75
Review and revise work.	2.25	2	1.75

Across all course types, instructors reported spending little to no instructional time asking students to present to others or maintain portfolios of their work. Ten of the 11 instructors reported spending either less than 10% or no class time asking students to *present or demonstrate to others*. Similarly, nine out of 10 instructors reported spending either less than 10% or no class time asking students to *maintain a portfolio of their own work*.

Assessment of Student Learning and Performance

The three course types used similar assignments, primarily final exams, chapter tests/midterms, quizzes, and homework, to determine students' grades. Based on review of course syllabi, the three course types use similar assignments to determine students' grades. All syllabi included a final exam, some form of chapter tests or midterms, and all but one included some variant of homework as the main graded elements. Quizzes were used by all CC instructors, two out of three HSDC instructors, and one out of two DC instructors.

The main assignments, final exams, chapter tests/midterms, quizzes, and homework determined similar portions of students' grades across course types. On average, cumulative final exams made up roughly 20% of students' final grades in all course types, chapter tests/midterms accounted for roughly 50%, homework for 10% to 15%, and when included, quizzes accounted for 15% to 20% of students' final grades.

There were no differences in assignments' levels of cognitive demand between course types. In our review of 27 assignments including chapter tests/midterms and final exams, we found marked similarities across course types. All assignments were rated as meeting the requirements for the second level of cognitive demand, skill/concept. At this level, students are asked to use conceptual knowledge to solve problems that often require two or more steps to solve. Two sample activities that meet this requirement are "Retrieving information from a

table, graph, or figure and using it to solve a problem requiring multiple steps” and “Solving a routine problem requiring multiple steps, or the application of multiple concepts.”

There were also no differences in assignments’ levels of cognitive complexity between course types. All assignments were also ranked at the second level of cognitive complexity, which in the scale used was “practicing and deepening new content.” The exams reviewed asked students to do more than interact with new content but did not meet the criteria for the highest level of cognitive complexity as the problem solving involved was routine and not asking students to devise new methods of finding solutions.

The results of the instructor survey showed that across all course types instructors used short answer questions as the most common method of assessing students. Presentations, projects, and portfolios were uncommon across all course types.

Table 3.8. Weighted Average of Instructor Reported Use of Assessment Strategies

	HSDC	CC	DC
Multiple choice or true/false items	2	0.67	1.25
Short answer questions such as performing mathematical procedure	2.75	3.33	3.75
Extended response item for which students must explain or justify a solution	1.5	1	1
Performance tasks (hands-on activities)	1	1	1
Individual or group demonstration or presentation	0.25	0.67	0.5
Mathematics projects	0.5	0	0.5
Portfolios	0.25	0	0.25

HSDC instructors more frequently than traditional college instructors reported using multiple choice and true/false questions. One potential difference between course types was in the use of multiple choice and true/false questions, with CC courses using them least often and HSDC courses using them more often. These findings are based on instructor survey responses and are not based on actual counts of each question type or within assignments or type of assignment reviewed.

There were no clear differences in the level of student performance between course types. To measure student learning and mastery of content, we reviewed 70 examples of student work

corresponding to the assignments above and rated them on a novice-to-expert continuum. By examining the number of questions students answered correctly, which types of questions they answered correctly, and how much or how little work they showed to reach their answers, we got a sense of students' depth of knowledge and mastery. Student work looked similar across all three course types. That is, an example where a student earned an F letter grade in an HSDC course looked like an example that earned an F in a CC course. Likewise, student work that earned an A in HSDC or DC courses looked like student work that earned an A in CC courses. Combining this finding with the earlier finding that all assignments were rated at the same level of cognitive demand and complexity, we did not find any systematic differences in the level of student performance between course types. See Table 3.9 below for an overview of how the instructor assigned letter grades aligned with researcher assigned novice-expert continuum ratings for the student work examples.

Table 3.9. Counts of Assignments by Grade and Rating on Novice-to-Expert Continuum

Grade	HSDC			CC			DC		
	Novice	Strategic	Expert	Novice	Strategic	Expert	Novice	Strategic	Expert
A		5	6		2	2		1	5
B	1	1			2				
C	5	7		2	2		2	4	
D	6			2			2	1	
F	5			5			2		

Conclusion

The purpose of this portion of the Phase II was to gain a better understanding of the similarities and differences between the academic rigor of what is being taught, how it is being taught, and student performance in DC courses and CC courses. The combination of self-reported perceptions from the survey with the analysis of syllabi, assignments, and student work samples in this study helped to begin to give data on the actual expectations across two DC and CC courses. This analysis begins to give insight into the level of rigor that is present in course expectations across all three course types to begin to get a better understanding of what similarities and differences there are that may impact the level of rigor in a course.

Traditionally, discussions related to academic rigor in dual-credit courses have been anecdotal. This study offers an initial set of data to inform future discussions and decisions. For example,

these data could be used when considering course content requirements and the development of common syllabi. The findings provide more specificity about the commonalities in expectations across courses and begin to identify discrete differences that can be addressed to begin to ensure academic rigor across course types. The design of this study and the findings offer opportunities to begin to have conversations around instructional strategies that focus on academic rigor and how to develop assignments and assessments at higher levels of cognitive demand and higher on the novice-to-expert continuum (Marzano & Toth, 2014; Webb, 2002; Conley, 2013). Although the results reported in this chapter are based on a very small sample size, the findings offer an opportunity to reflect on current practices in HSDC, DC, and CC to improve the academic rigor across course types. We hope the results of this study will help contribute to an informed, continued discussion of academic rigor to ensure all students enrolled in dual-credit programs have access to a rigorous course of study.

Chapter 4: The Costs of Delivering Dual-Credit Education

The availability of dual-credit courses in Texas has expanded rapidly over the last decade. At South Texas College, for example, dual-credit courses were first offered in 2006 to 28 students. By 2016, almost 16,000 students took courses as dual-credit students (Perez-Hernandez, 2016). Statewide, dual-credit enrollment increased by 215% from 2006 to 2015 (Legislative Budget Board Staff, 2017).

One concern with the rapid expansion of dual credit is the cost of such courses, and the manner in which those costs are distributed across stakeholders. Here, we define costs as the monetary value of the resources used to deliver dual-credit education programs that would not be otherwise be used to deliver high school instruction and support services. Explicitly excluded from this definition is revenue, or appropriations, allocated by federal and state government that is used to fund higher and secondary education institutions to administer dual-credit programs. Federal, state, and local funding including tuition payments represent cash transfers that help pay for the cost of dual credit, and we discuss the role of these cash transfers as part of our analysis of cost.

The purpose of this study is to estimate the cost to deliver dual-credit programs, and to determine how these costs are shared among community colleges, public school districts, and students and their families. In addition, we compare the costs of delivering dual credit education against the amount of state funding that is allocated to education institutions for the purpose of administering dual-credit education. We also explore how different tuition agreements alter the distribution of costs among stakeholders. Finally, we examine the benefits of dual-credit education and how the monetary value of benefits compares with the costs of dual-credit education.

Who Bears the Cost of Delivering Dual-Credit Education?

Community colleges, school districts, and students and their families are the key stakeholders who bear the cost to cover the delivery of dual-credit education. In particular, tuition agreements play a central role in determining who bears the costs of dual credit. According to the work by Pierce (2017), Texas is one of 13 states (plus the District of Columbia) where the decision about who pays for tuition is made at the local level by community colleges and school districts. According to data collected by the Texas Association for Community Colleges (TACC) (2017), in FY 2016 community colleges in Texas employed a variety of tuition arrangements, with the most generous being waiving tuition and fees completely. The most common approach, according to

TACC data, was to provide a partial waiver or charge a flat fee per semester credit hour that was generally less than full tuition. As a result of offering college courses at a discounted rate, colleges have been concerned that revenue sources are not covering the cost of providing dual-credit courses (South Texas College, 2015; Express-News, 2018).

The cost to colleges, however, is but one source of the overall costs of providing dual credit. There are also costs to school districts, which have to coordinate dual-credit opportunities with colleges and advise students regarding dual-credit opportunities, and potential costs to students, who may be responsible for purchasing textbooks, traveling to community colleges, and paying tuition and fees. Furthermore, the cost burden might be shared in a variety of ways by the three parties that make up a dual-credit partnership (community colleges, public school districts, and students and their families), leading to substantial variation across Texas regarding who pays the costs of dual credit. This adds a level of complexity to the analysis and reporting of findings (Legislative Budget Board Staff, 2017).

While the rapid expansion of dual-credit poses its challenges, with cost being one of them, the expansion of dual-credit options also has benefits for high school students. Participation in higher education has been shown to have many benefits to individuals in the form of higher earnings and other factors improving quality of life as well as society at large (McMahon, 2009). Because of these benefits, Texas has created 60x30TX, the state's ambitious Higher Education Strategic Plan. This plan sets goals of 60% of 25- to 34-year old Texans having a certificate or college degree by 2030, increasing the number of students per year completing a certificate or degree, improving marketable skills of college graduates, and reducing debt (Texas Higher Education Coordinating Board, 2015). Increasing the participation of economically disadvantaged high school students in dual credit and other college-level courses is one strategy for helping the state attain these ambitious goals.

Purpose

The goal of the cost component of the Texas Dual-Credit Education Study is to estimate the cost of providing dual-credit programs across the state, while showing what accounts for the costs and which stakeholders pay for the costs. The cost analysis is designed to yield several types of information that will be useful to policymakers, practitioners, and researchers.

First, the cost analysis provides an understanding of the types and quantities of personnel and nonpersonnel resources used to deliver dual-credit courses to students, as well as the corresponding cost of those resources. To this end, the cost information shows the cost of

replicating a dual-credit program at a new site and thus provides information to determine the feasibility of doing so. The information is valuable not only in providing a general account of the costs, but also as a reference that can be used to consider how resource usage might be adjusted to improve delivery of dual-credit courses. In addition, knowing the costs of providing dual-credit courses is important for understanding the total effort involved in sustaining such programs over time.

Second, the study sheds light on how the burden of these costs is shared over a variety of stakeholders, including community colleges, public school districts, and students and their families. This information can be used by policymakers in refining mechanisms to appropriately fund dual-credit programs.

Finally, beyond understanding the cost structure of dual-credit programs and who pays for these programs, ultimately policymakers want to know if the investment worth it. To this end, we examine the benefits of dual-credit education and compare these to costs. We monetize the improvement in student outcomes identified in the impact analysis. Furthermore, we categorize benefits as those benefiting the students who take dual credit and benefits to the public at large. By categorizing benefits in this way, we can estimate both the private and public return on investment for dual credit.

Cost Study Methodology

As defined earlier, the **cost of dual-credit education** is the total amount of resources provided by colleges, school districts, and students, to deliver dual-credit education programs, that would not otherwise be used in a traditional, nondual-credit high school setting. Importantly, state funding for colleges and K–12 school districts, as well as tuition payments, are not costs, but rather **cash transfers** that shift the burden of costs. As we discuss in the subsections below, our study includes two analyses of cash transfers. First, we analyzed **state funding** data to determine how any additional funding from the state that community colleges and school districts receive for dual credit compares to the costs. Second, we studied how **tuition** payments alter the distribution of costs. These two types of cash transfers – state funding and tuition payments – do not add to the overall costs (as they are not tangible resources), but rather shift how costs are distributed among stakeholders.

We also identify who is responsible for different types of costs. Costs can be paid for by community colleges, school districts, or students and their families. Costs to community colleges and school districts are “public” costs, which are funded through tax revenue raised at

the local, state, and federal levels. Costs to students and families are private costs, which are funded directly by the students and families of students receiving dual credit.

Sample Selection

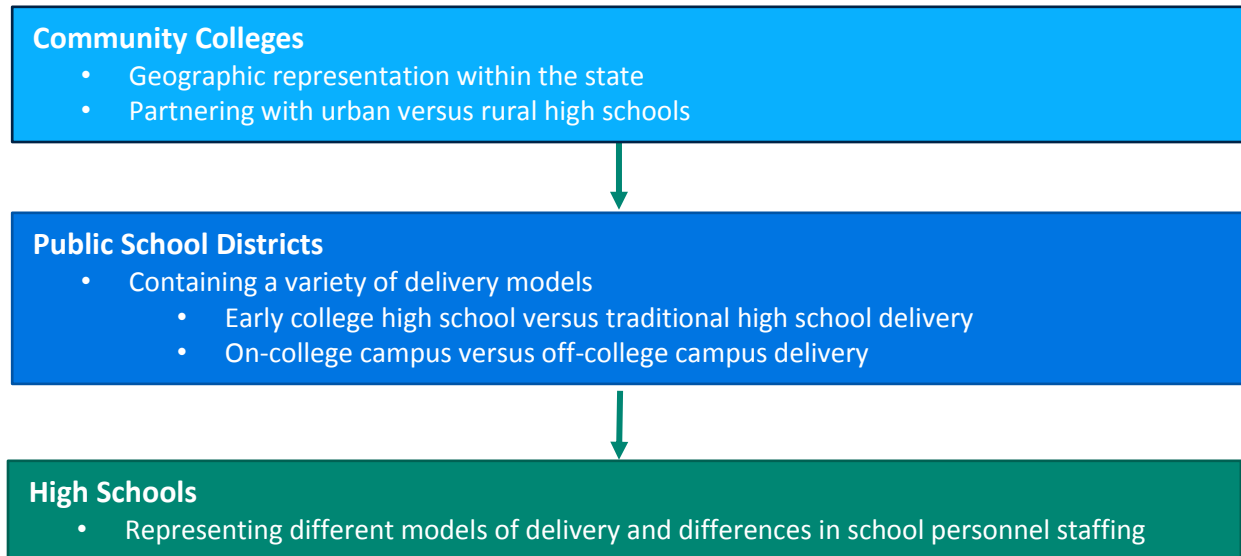
For the cost analysis, we first selected a purposive sample of dual-credit partnerships, consisting of community colleges and their partner public school districts and high schools (Figure 4.1).¹⁰ The sample of partnerships were selected to ensure variation in geographic location (including both urban and rural areas); dual-credit delivery models, including courses offered on-site (i.e., at the community college campus) and off-site (i.e., at the high school); and high school model (ECHSs and traditional high schools).¹¹ Specifically, we first selected five community colleges —three that serve relatively urban partnering high schools and two that serve more rural high school partners.^{12,13} From those community colleges, we selected a set of partnering public school districts of varying sizes containing high schools that use various dual-credit delivery models. This sampling approach allowed for comparative analysis between dual-credit programs in these various contexts. We used information on costs from both the college and school districts to develop comprehensive costs of dual credit.

¹⁰ Several community colleges selected are community college districts having multiple campuses.

¹¹ Due to the substantially different resources required for CTE dual credit, and the relatively low prevalence of this type of dual credit offering, we did not perform in-depth cost analysis of CTE dual credit programs. However, we performed a broad scan of the research on differential costs of CTE. In addition, all the community colleges sampled provided CTE courses. We captured elements of these programs in our data collection.

¹² Urban and rural definitions are based on census locale definitions that are also used by the National Center for Education Statistics (see https://nces.ed.gov/programs/edge/docs/LOCALE_DEFINITIONS.pdf).

¹³ We chose to focus only on community colleges offering dual credit because community colleges offer approximately 95% of all dual-credit instruction in Texas.

Figure 4.1. Illustration of Sampling Plan for Cost Analysis

The Ingredients Approach

We used the *ingredients approach* to costing out educational services as initially developed by Levin (1983) and recently updated by Levin et al. (2018). Following the ingredients approach, we focus on the additional costs associated with the provision of dual credit (i.e., above those costs that would be incurred in a traditional nondual-credit high school setting).¹⁴ The approach involved identifying the comprehensive list of “ingredients”—personnel and nonpersonnel resources such as instructor time and textbooks—associated with providing dual-credit education, including their quantities and unit prices.¹⁵ Quantities of ingredients and unit prices were used to cost out each ingredient, which were then aggregated to provide an estimate of the overall cost in total and on a per-semester credit hour basis. We categorized the ingredients according to whether they represented personnel or nonpersonnel resources, who bore the cost (community colleges, public school districts, or students and their families), and by functional categories (administration and advising, instruction, or other). By categorizing resources in this fashion, we were able to break down the overall costs and costs per semester credit hour in several ways. Of particular importance, we can determine how costs are shared

¹⁴ The ingredients method is widely accepted as the preeminent method for cost analysis in economic evaluation research. The method is recognized by National Research Council and used by the World Bank, the Massachusetts Institute of Technology Jameel Poverty Action Lab, and the U.S. Agency for International Development.

¹⁵ For personnel, the ingredient “prices” are defined as full compensation for different staff types including both salaries and benefits.

among various stakeholders (i.e., community colleges, public school districts, and students and their families). The cost burden to students and their families is of special interest, given the student debt goal in *60x30TX*.¹⁶

The costs we considered were only those related directly to the provision of dual credit and are extraneous to the general operation of schools.¹⁷ The intention of the analysis is to isolate the differential costs of dual-credit instruction compared to traditional high school instruction. That is, how much more (or less) does it cost to provide students with dual-credit instruction compared to traditional high school instruction?

Data Collection

To conduct the cost analysis, we gathered extant data and conducted primary data collection. Specifically, extant data consisted of statewide data from 2016–17 obtained from THECB and TEA on dual-credit enrollment, instructor salaries, and high school personnel staffing levels. We also analyzed extant data, when available, from the sampled set of study sites. These data included fiscal data on dual-credit spending from community college accounting systems, as well as documentation of service arrangements between colleges and partnering school districts and high schools. This documentation included information obtained through MOUs between community college and school district partners. The extant data were used to determine quantities of certain ingredients that were clearly identified in the data (e.g., the number of dual-credit instructors who are full-time college faculty) and were used to establish average prices of these ingredients (e.g., the compensation associated with a typical full-time college faculty member providing dual-credit instruction). In addition, the extant data contained key information such as the tuition arrangements between colleges and school districts.

Because the extant data were generally not sufficiently detailed or comprehensive enough to identify all costs in the delivery of dual-credit programs, we also conducted interviews at each community college and school district site. These interviews were necessary to obtain more granular information on how the dual-credit program is delivered within each study site and the specific resources that are required. For example, at each of the school districts sampled, an administrator was responsible for overseeing dual credit. In some cases, this was their primary responsibility, and in other cases, this was only one of many responsibilities. Some districts provided administrative support for these staff and provided significant travel reimbursement

¹⁶ See <http://www.60x30tx.com/goals/goal-four-student-debt/>

¹⁷ In addition, because costs related to facilities are relatively fixed—meaning they do not vary with respect to small changes in numbers of students—we did not include facilities costs in this analysis.

throughout the school year, while others provided less support. To accurately calculate the cost of delivering dual-credit courses, we asked interviewees to estimate the percentage of time spent by the various staff involved with activities related to the dual-credit program.

Developing a Resource Cost Model

To calculate the overall costs associated with the dual-credit program at each of the participating study sites, we developed what is known as a resource cost model (RCM). The RCM is a tool to organize the resources identified in interviews and extant data, apply prices, and calculate overall costs and costs per SCH. The RCM was developed using Microsoft Excel and performs a series of calculations to convert types and quantities of resources into costs.

As previously mentioned, to calculate costs, we needed prices and quantities of ingredients. The quantities of ingredients were largely obtained from interviews or extant data. In some cases, quantities of resources were clear from these sources. In other instances, we had to make some assumptions about the uptake of certain resources. For example, each site reported that students must take the TSIA to determine their eligibility for many dual-credit courses. The TSIA requires a fee per testing unit for each subject area. School districts did not have information on the number of TSIA tests given over the course of a school year readily available but could offer estimates on the number of testing units each dual-credit student takes. Based on those estimates, we made assumptions of the number of testing units that districts paid for each year. In most cases, the resources for which quantities were not clearly apparent from the interviews were nonpersonnel items that were only minor contributors of cost.

In some cases, prices of ingredients also came from the interviews or extant data. In many cases, however, we had to use alternative sources of information to determine prices. Following the ingredients method, we assigned salaries commensurate with the experience and educational level of personnel. This strategy allowed us to estimate the cost of producing dual credit (the value of resources used), rather than the expenditures of dual credit that are specific to a given context. In the case of instructors, we used data from THECB on salaries. For other staff positions, such as administrative staff, counselors, and school principals, we used data from the 2016 Bureau of Labor Statistics Occupational Employment Statistics data as standard prices for various types of staff.

We used the quantities and prices of the various resources allocated to producing dual-credit education to determine overall costs. The overall cost at each individual site was divided by the total number of dual-credit SCHs provided in 2016–17 to determine a site-specific cost per semester credit hour. We focus on the cost per semester credit hour per student, rather than

the cost per student, because much of the costs involved in producing dual-credit education, such as the instructor costs, vary with the number of courses, not the number of students. Our estimates of the annual cost per semester credit hour can be converted to annual cost per student simply by multiplying by the average number of semester credit hours that each student takes each year.

Funding Analysis

To incorporate funding into the cost study, we examined the existing policies and state funding formulas determining the amount of funding distributed to community colleges and K–12 school districts. State funding for community colleges is primarily delivered on a per-contact hour basis, with funding rates differing according to the type of course. For K–12 school districts, state funding is largely based on each district’s average daily attendance, with adjustments related to district size, geographic location, and student population. However, regardless of whether a student’s class schedule includes only traditional high school (nondual-credit) courses or dual-credit courses (taken either on a high school campus or on a college campus), the same amount of state funding is generated, even though there are clear differences in costs associated with these models of instructional delivery.

By understanding the funding formulas in detail, we attempted to calculate the amount of state funding going to both community colleges and K–12 districts on a per SCH or per course basis. We then compared these state funding figures to the costs incurred by community colleges and school districts to understand the magnitude of the difference between costs and state funding, with an understanding that any difference between the two must be made up through other sources.

One additional source of revenue available to community colleges is tuition and fees paid for by either the students or the school districts. We examined the different approaches to charging tuition and fees taken by the community colleges in our sample to understand the impact of this additional revenue source in making up the difference between costs and state funding at the community college level.

Benefits Analysis

Upon completion of the cost analysis—which yielded an estimate of the cost of delivering dual-credit programs—we conducted a benefit-cost analysis to understand whether the benefits of dual-credit outweigh the costs of providing this intervention. To assess benefits, we assigned dollar values associated with the following outcomes measured in the impact analysis: (1) increases in the graduation rates from postsecondary education programs and (2) changes in

the time and SCHs taken after high school graduation to complete postsecondary education programs. These positive outcomes provide monetary benefits for both students and the state of Texas.

We can think of benefits both in terms of those that are short term and long term. Short-term benefits for students might include paying less for college, given that students have already earned credits toward college completion while still enrolled in high school. In addition, accelerated college completion results in earlier entry into the workforce, reducing the cost of college and allowing recent graduates to begin earning a full-time salary. This last piece is salient to the student debt goal in 60x30TX because less time in college and earlier entry into the workforce should also decrease student debt. Long-term outcomes accrue from differential earnings over the course of an individual's lifetime. Long-term societal benefits may also include lower levels of criminal activity, reduced use of social welfare or healthcare systems, and higher tax revenues associated with a more educated and higher paid workforce (Trostel, 2009).¹⁸

Cost of Providing Dual-Credit Courses in Texas

In this section, we describe the results from our cost analysis. As mentioned previously, we sampled five community colleges varying by size, geographic area within the state, and whether they serve a more urban or rural population of students. We then selected a set of school districts partnering with these community colleges of varying size and with varying delivery models. We intended to select two school districts for each community college. However, due to lack of availability or responsiveness, we were unable to gather data for districts partnering with one of the community colleges. However, for two other community colleges we gathered data from three rather than two school districts. In total, we retained a sample of 10 school districts (two districts with two schools each and two districts with three schools each). In reporting our results, we do not identify the community colleges or school districts and have, instead, assigned each college a letter (A-E) and each school district a number along with the letter of the partnering college (for example, District 1A).

In addition to being diverse in size and location, the community colleges sampled were also diverse in the method of instructional delivery (Table 4.1). In four of the five community colleges, dual credit was most commonly delivered at the high schools. There was substantial variation across sites in terms of who was teaching the dual-credit courses. In two sites, dual-credit courses were most commonly delivered by high school teachers who were approved to

¹⁸ We do not measure these benefits directly as part of this study, but instead apply estimated benefits based on prior research and knowledge on the benefits of increased education.

teach dual credit by the community college; in one site, dual credit was overwhelmingly taught by part-time (adjunct) community college faculty; and in two sites dual credit was most commonly delivered by full-time college faculty.

Table 4.1. Sample of Community Colleges

College	Number of Dual-Credit SCHs	Serves Mostly Urban or Rural	Courses Most Commonly Delivered at High School or College Campus	Most Common Faculty Type Teaching Dual Credit	Number of Partnering Districts Included in Study
A	High	Urban	High School	High School Teacher	3
B	High	Urban	High School	Part-Time College	2
C	Moderate	Urban	College	Full-Time College	2
D	High	Rural	High School	High School Teacher	3
E	Moderate	Rural	High School	Full-Time College	0

Notes: High number of dual-credit SCHs is more than 20,000 in 2016–17. Moderate number of dual-credit SCHs is more than 10,000 and less than 20,000.

In addition to this variation across community college sites, there was also variation in how dual credit was delivered across and within the sampled districts. Many of the districts included in the sample operated dual credit in both a traditional manner (for students attending the traditional comprehensive high schools) and as part of ECHS programs. ECHSs are high schools where the goal is for students to earn a two-year degree or certificate while in high school. Therefore, students enrolled in ECHSs take dual-credit courses in far greater numbers and often begin enrolling in dual-credit during the ninth grade. ECHSs are also sometimes located on or near a community college campus. Because of this, ECHS students more often take dual-credit courses on a college campus and are taught by college faculty compared with traditional dual credit. Finally, community colleges often use different tuition agreements for dual-credit in ECHSs versus dual credit for students in traditional comprehensive high schools.

TEA established a blue print for ECHSs that requires, among other things, individualized student plans and ongoing academic support, college readiness advising, and mentorship opportunities, all of which likely require additional support staff. ECHSs are often smaller schools of approximately 450 students with lower administrator-to-student ratios. We use school-level staffing files to calculate the additional staff for ECHSs compared with traditional high schools in

the same district and factor this into our cost analysis. In addition, both ECHSs and traditional high schools with substantial numbers of students taking dual-credit not taught by high school teachers are able to reduce teaching staff. Our data show that a typical high school teacher teaches five course sections, each with an average class size of 24 students; therefore, for every 720 SCHs of dual credit taught by college faculty, a high school can hire one less teacher. We factor these cost savings into our estimates of the cost of providing dual-credit opportunities.

In the rest of the chapter we present an overview of the costs for traditional and ECHS dual-credit models, followed by our analysis of statewide costs of dual credit and the cost burden of dual credit. In addition, short narratives describing the salient features of dual credit offered at each college site along with a presentation of costs for each of the community college-school district partnership can be found in Appendix E.

Dual Credit in Traditional Comprehensive High Schools

Costs for delivering traditional dual credit (delivered through traditional comprehensive high schools as opposed to ECHSs) showed substantial variation across the colleges. Several factors emerged as important predictors of differences in the cost of dual credit across sites, including the type of instructor and the size of the school district. Following, we describe the main cost factors contributing to the cost of dual credit in traditional high school settings.

Dual-credit costs vary substantially according to the type of instructor teaching the course.

The first factor impacting dual-credit costs is the type of instructor teaching the course. There are generally three types of teachers for dual-credit courses: full-time college, part-time (adjunct) college, and high school teachers. When college faculty teach courses, the college pays for those faculty. Full-time college faculty are paid substantially more than adjunct college faculty, making full-time college faculty a more expensive option. In addition, when dual-credit courses are taught by college faculty, high schools can reduce the number of teaching staff at their school. During interviews, school district administrators noted the cost savings associated with assigning community college faculty as instructors of dual-credit courses. As one district administrator reported, “If dual credit were to go away, then we would have to absorb those kids back into our system and it would cost us a lot of money to do that. That instruction right now, we would have to instruct those classes because [students] are counting on almost all of them for graduation requirements.” Because districts can reduce teacher staffing levels by assigning college faculty to teach high school classes, we accounted for cost savings on teacher staffing in our estimates.

Conversely, when high school teachers teach dual credit, the college bears little cost for dual-credit instruction. Some colleges (and most school districts) pay small stipends to high school teachers who teach dual credit. In addition, colleges reported costs to the college for training and monitoring high school teachers who teach dual credit. However, these costs are small compared with the salary of a full- or even part-time college instructor. In this case, high schools do not realize any cost savings from outsourcing instruction to the college, causing overall costs to school districts and high schools to be higher when they use their own teachers to deliver dual credit.

In Colleges A and D, the most common type of instructor was a high school teacher. This arrangement for dual credit reduces costs borne by the college. As seen in Table 4.2, College A had the smallest college cost prior to accounting for tuition. However, the school districts associated with these colleges tended to have higher school district costs prior to tuition than school districts associated with the other colleges. College D also had low college costs compared with colleges C and E but larger college costs compared with Colleges A and B. While approximately 57% of dual-credit at college D was delivered by high school teachers, much of the remaining dual credit was delivered by full-time college instructors at College D. Colleges A and B were less than half as likely as college D to use full-time college instructors.

Table 4.2. Average dual-credit costs per semester credit hour to colleges, school districts, and students pre- and post-tuition across five colleges

	College A	College B	College C	College D	College E
College Cost Pre-Tuition	\$62.78	\$73.83	\$122.49	\$81.11	\$94.33
School District Cost Pre-Tuition	\$56.22	(\$22.89)	\$10.52	\$46.22	
Student Cost Pre-Tuition	\$0.63	\$26.03	\$11.49	\$17.12	
College Cost Post-Tuition	\$58.34	\$72.16	\$89.49	\$45.12	\$44.33
School District Cost Post-Tuition	\$59.23	(\$22.89)	\$23.55	\$77.72	
Student Cost Post-Tuition	\$0.63	\$27.69	\$31.46	\$21.62	
Total Cost	\$119.63	\$76.97	\$144.50	\$144.45	

Note: The pre-tuition costs do not account for the tuition payments at each community college. The post-tuition costs do account for tuition charged to dual-credit students. Charging of tuition does not impact the total costs, but shifts the burden of cost away from the college to school districts and students. We did not collect information from school districts about costs for College E, so we could not calculate costs for the school district and student. For more detailed descriptions of costs by college and partnering district, see Appendix A.

College B largely used college faculty rather than high school teachers for dual-credit courses. Most of those college faculty were adjunct, who are substantially less costly to employ. In addition, the school districts partnered with College B receive cost savings from having college faculty teach substantial numbers of its students. For the school districts associated with College B, the cost savings associated with reduced teaching staff were substantially larger than the administrative costs associated with operating dual-credit programs. Therefore, the school districts associated with College B had an overall cost savings of \$23 per SCH from students participating in dual credit. Because the use of adjunct teaching staff results in lower costs on the college side compared with full-time college teaching staff and provides school districts with cost savings of having staff other than their own teachers deliver instruction, this arrangement resulted in substantially lower overall costs compared with the other colleges (\$77 per SCH compared to \$120, \$145, and \$144 in College A, C, and D, respectively). These results are described in greater detail in Appendix E.

The most common type of instructor for dual-credit courses in Colleges C and E were full-time college faculty. For College C, more than 80% of dual-credit semester credit hours were delivered by full time college faculty, and for College E, a little more than 72% were delivered by full-time college faculty. The college instructional costs at Colleges C and E were substantially higher than the other community colleges sampled, contributing to the higher college costs pretuition observed at these schools. Because dual credit associated with College C is rarely delivered using high school teachers, there were substantial cost savings associated with reduction in numbers of high school teachers, lowering the overall pretuition cost to the school district. This phenomenon is also likely the case in College E, where full-time college faculty teach the majority of dual-credit course; however, we exclude district costs from Table 4.2 because we did not collect interview data on administration and advising costs for school districts partnering with College E. For more detailed descriptions of costs of instructional personnel, see the site-specific narratives found in Appendix E.

Small school districts delivering dual credit had higher school district administrative costs.

A second factor that affected cost differences was the size of the school district. We originally hypothesized that rural dual-credit partnerships might have some additional costs not found in urban partnerships due to differences in scale of operation and having larger distances between high schools and community colleges. We observed some additional costs related to travel in rural areas. For example, the dual-credit coordinators for colleges serving predominately rural school districts described having to drive several hours one-way to visit their high school partners. However, the costs of travel at the rural colleges were quite small compared with the

personnel costs for administering dual credit and the instructional costs. In College D, for example, travel costs for college administrators visiting high schools for outreach visits were less than \$0.50 per SCH. Therefore, there was little systematic difference in costs of dual credit for partnerships with urban compared with rural districts.

Additional costs were related to scale on the district administrative side. District administrative costs largely consisted of either central administrative staff or staff at individual high schools involved in coordinating dual-credit delivery between school districts or high schools and the community college partner. Several of the school districts partnering with College D in particular were quite small. These were districts containing only one high school and providing less than 2,000 SCHs of dual-credit instruction per year. In addition, one of the school districts partnering with College C was a small district containing a single high school, while the other was a fairly large urban district. In these single high school districts, the administrative staff on the district side were more likely to be only in the high school rather than central district administrative staff. For both College C and D, the smaller school districts had substantially higher district administrative costs per semester credit hour compared with the larger school districts. Because Table 4.2 reports average costs by community college, differences in cost across larger and smaller districts partnering with the same community college are not apparent within the table. (Appendix E shows costs for individual districts within each partnering community college.)

In addition to administrative staff, districts also had staff involved in advising students related to dual credit. In many cases, traditional high schools had a counselor who was assigned to oversee advising related to dual credit. In some cases, the counselor spent all of their time on dual-credit-related activities, while in other instances counselors devoted only part of their time to dual credit.

Across all school district partners, district and high school administrative and advising costs averaged \$55.42 per semester credit hour. Districts delivering at least 3,500 semester credit hours of dual-credit instruction had district and school administrative and advising costs around \$46 per SCH, while the same costs for smaller districts were \$69 per SCH, a difference of approximately \$23 per SCH.

Differences in college administrative costs were not clearly related to college characteristics.

In addition to administration and advising on the school district side, there are also administrative costs on the college side. Each college had someone serving as the director of dual credit (or a similar title) who oversaw all dual-credit and ECHS partnerships for the college.

In most instances this person devoted all their time to dual-credit-related activities. However, in one of the colleges, “partnerships” was defined more broadly, so the person who oversaw dual credit also oversaw other types of partnerships, such as delivering instruction to incarcerated individuals. At each college, there were also one or more dual-credit coordinators who were responsible for maintaining communication with particular district or high school partnerships. Depending on the size of the college and the structure of the administrative team, the number of coordinators varied from one to four.

In addition to staff dedicated to overseeing and administering dual credit, numerous other staff at each college were involved in administering dual credit in some way. These staff included deans, provosts, vice presidents, department chairs, registrars, human resources, and other staff. In most of these cases, however, the amount of staff time devoted to dual credit was relatively small.

The cost of college administration ranged from \$23 per SCH to \$51 per SCH. Colleges with a greater number of SCHs typically had larger administrative costs overall; however, the differences in college administrative costs *per SCH* did not seem to be related to any readily observable college characteristics. The college with the highest administrative costs was College A, a large urban college. College B, also a large urban college, had college administrative costs of \$32 per SCH. Likewise, the cost of college administration in the two rural colleges also were quite different (see Appendix E for additional information about different categories of costs for community colleges).

School districts decide whether to pay for textbooks and testing or whether students pay those costs.

Costs of textbooks amounted to approximately \$15 to \$25 per SCH. This assumes that community college textbooks must be replaced every 3 years, while textbooks for traditional high school classes have a much longer span of use. None of the community colleges in our sample provided textbooks to students. In each case, school districts decided whether to pay for textbooks themselves or make students responsible for their own textbooks.

Another additional cost of dual credit is student testing. For many dual-credit courses, students must demonstrate they are academically prepared by having a qualifying test score. All of the districts in our sample administered the TSIA for the students in their district. Costs of testing amounted to \$2 to \$4 per SCH. As with testing, districts decided whether to cover the cost of testing or charge students.

In addition to textbooks and testing, another moderately large nonpersonnel cost for school districts is the cost of providing bus service to get students from the high school to the community college when classes are taken on the college campus. Depending on the number of trips to and from campus and the distance to campus, bus service for students at the sites offering this service ranged from \$5 to \$20 per SCH.

Due to textbook and testing costs, the average cost of dual credit to students prior to any tuition and fees was almost \$13 per SCH. The cost of textbooks, testing, and student transportation for school districts amounted to \$17 per SCH on average. While some districts covered the cost of TSIA and textbooks, we found that students paid for these items in most districts in our sample.

Charging tuition shifts the cost of dual credit away from colleges to school districts and students.

The tuition arrangements across the community colleges in our sample varied substantially. These different tuition arrangements do not affect the total cost but shift the burden of the cost from colleges to school districts and students when tuition or fees are charged. In Colleges A and B, tuition is largely waived. In College A, districts pay tuition for courses taught by college faculty, but this delivery mode is rare outside of ECHSs. In College B, tuition and fees are not waived for a limited number of courses, and a flat fee of \$100 is charged per course for ECHS students, but the college waives tuition for the majority of dual credit. Because minimal tuition and fees are charged for dual credit at these colleges, the cost burden shifts little when accounting for tuition and fees.

In College C and E, a reduced tuition and fee amount is charged for dual-credit students. In one of the partnering districts with College C, the district pays for this fee only for ECHS students and any student eligible for free or reduced-price lunch. This means the bulk of the fee is paid for by the district. In the other district partnering with College C, students pay for the fee, shifting a substantial share of the burden to students.

College D has an interesting arrangement for charging tuition and fees. Rather than charge districts or students on a per credit hour basis, the college allows districts to buy entire course sections. So, the districts pay for sections of courses if they have enough students to fill an entire section. For courses taken outside of those sections paid for by the district, students are charged 85% of the tuition cost. In each of the colleges that charge some amount of tuition and fees, the cost burden for the colleges is substantially reduced while the burden for districts and students increases.

ECHS Dual Credit

Although state law requires that dual-credit education be available in all Texas high schools, a substantial number of students access dual-credit coursework by enrolling in an ECHS.¹⁹ ECHSs are typically small high schools, enrolling on average approximately 450 students and providing students with the opportunity to complete 60 SCHs leading to an associate's degree. ECHSs generally follow one of two models. Stand-alone ECHSs are located on community college campuses and consists of buildings designed to hold just the ECHS students. A growing number of ECHSs are designed as a school-within-school model, in which the ECHS is a program that exists in a larger comprehensive high school. Districts often have separate MOUs for ECHSs that require different staffing patterns or tuition agreements. As such, we calculate the annual per-SCH cost of dual-credit education in ECHSs separately.

Costs per SCH of college and school district administrative are similar for dual credit delivered through ECHSs and traditional high schools.

Interview data show that both community college and school district central office staff generally have similar staffing allocations for ECHSs as for dual-credit in traditional high schools. Administrators reported spending more of their time overseeing dual-credit education in ECHSs; however, data show that ECHSs have a greater number of SCHs per student. In short, while ECHSs require more administrator staff time *per student*, ECHS students receive a greater number of SCHs on average, compared to students in traditional comprehensive high schools. Therefore, the cost per SCH for community college and school district central office staffing is similar in ECHSs and in non-ECHS traditional high schools.

Costs of school-level administrative and support staff are greater at ECHSs compared with traditional high schools.

ECHSs have a fundamentally different approach to assigning instructional and noninstructional personnel at the school level. For example, stand-alone ECHSs that are located on community college campuses make it easy for students to enroll in courses at the community college because students can simply walk to the community college campus from their high school. As noted earlier, courses taught by community college faculty shift the cost of educating high school students from school districts to community colleges. In school-within-school models,

¹⁹ HB 1 (2006) requires school districts to implement a program providing students the opportunity to earn at least 12 college semester credit hours through advanced placement, dual credit, or advanced technical credit courses, which may include locally articulated courses (79th Texas Legislature, 3rd Called Special Session, 2005).

because a large number of students are interested in pursuing dual-credit coursework, districts often provide bus transportation to nearby community college campuses so that students can take dual-credit courses on the community college campus. In both cases, the amount of cost savings from reduced teacher staffing is significantly larger compared to dual-credit education in traditional high schools. School districts also design different staffing models for ECHSs, often providing additional support staff and counselors and other support staff. In addition, because ECHSs are smaller high schools, the staffing allocation often includes a greater number of administrators per student.

We estimate the cost savings for reduced teacher staffing at ECHSs using similar methods to those described earlier. Data show that 85% of dual-credit courses in ECHSs are taught by community college faculty, compared to 71% in non-ECHS traditional high schools. In other words, in non-ECHS traditional high schools, high school teachers are twice as likely to be the instructor of record for a dual-credit course compared to ECHSs (29% compared to 15%). Most of the difference results from a greater proportion of full-time community college faculty teaching dual-credit, as opposed to part time. In ECHSs, 55% of SCHs are delivered by full-time college staff, and 29% are delivered by part-time college staff, compared to 42% and 29%, respectively, in non-ECHS traditional high schools. The cost savings for school districts associated with reduced teacher staffing in ECHSs is \$76 per SCH, compared to \$60 per SCH in non-ECHSs, on average statewide.

To estimate the additional costs associated with alternate staffing models, we draw on TEA data that include information about the number of support staff and administrators at each school in Texas. We compare the staffing ratios of ECHS to non-ECHS traditional high schools in the same district. We focus on high schools in the same district, rather than comparing all ECHSs across the state to all non-ECHSs to account for possible differences in overall staffing ratios across districts. For example, if districts that have at least one ECHS generally provide more staff per student in all high schools, compared to districts that do not have an ECHS, then our results would show greater staffing levels in ECHSs. Among districts with at least one ECHS and at least one non-ECHS, we find that ECHSs have 0.49 full-time equivalent (FTE) more support staff and 0.48 FTE administrators per 100 students.²⁰ Greater staffing ratios result in

²⁰ As with all of our findings reported as state averages, these figures omit significant variation across contexts. For example, the stand-alone ECHS in District A1 has 0.75 FTE more support staff for each 100 students, but 0.35 FTE fewer administrators per 100 students. In contrast, the ECHS in District A3 has 1.09 FTE fewer support staff per 100 students, but 0.63 FTE more administrators for each 100 students. ECHSs employ far fewer educational aides (many do not hire any educational aides) but are less likely to serve English language learners or students in special education, and we therefore omit these cost savings. Note that we are unable to make within-district comparisons of staffing ratios between ECHSs and non-ECHSs for districts with no ECHS, such as District B2, or those in which all high schools are classified as ECHSs.

additional annual costs for dual credit in ECHSs that amount to \$2.46 for support staff and \$6.68 for administrators, respectively, for a total of \$9.14 per SCH.

Overall costs for ECHSs and traditional dual-credit models are relatively similar, but colleges bear more of the cost in ECHSs.

In summary, ECHSs affect dual-credit education resource allocation by both increasing the overall costs and by shifting the costs to community colleges. These shifts happen because of differences in the instructor assigned to teach the dual-credit course and because of differences in staffing patterns in ECHSs. For dual-credit delivered in ECHSs, school districts and community colleges pay 2.0% and 86.3% of the costs, respectively, whereas in non-ECHS traditional high schools, those figures are 14.3% and 74.1%, respectively, prior to accounting for any tuition arrangements. However, the overall average statewide costs of dual credit delivered in ECHS compared with traditional high schools are relatively similar: \$110 compared to \$111 per SCH, respectively. This is because the cost savings related to reduced dependence on high school teachers largely offsets the additional costs of support staff and administrators.

Statewide Costs and the Burden of Dual Credit

Based on average costs calculated across the five colleges and 10 school district partners, we extrapolated the costs of dual credit statewide, as shown in Table 4.3. This consisted of calculating the percentage of teaching staff who were full-time college, part-time college, or high school teachers for each partnership between a community college and high school. We applied an average instructional cost for each type of teaching arrangement, with full-time college instructors being the most expensive and high school teachers being the least expensive. We then calculated the high school teacher cost savings associated with classes being taught by full- or part-time college instructors for each partnership for traditional dual-credit models. We also calculated the cost savings of reduced staffing needs for ECHSs. To these costs, we applied average community college and school district administrative and advising costs, and other district and students costs for non-administrative costs such as textbooks, testing, and bus transportation. Because district administrative costs varied by district size in our sample of districts, we also applied an additional administrative cost for districts providing less than 3,500 SCHs of dual credit. Lastly, because we used statewide average prices to calculate our costs at each college, to account for geographic variation in prices across the state, we applied a geographic cost adjustment using the Comparable Wage Index (Taylor, Glander, & Fowler, 2006).

Table 4.3. Average Costs for Different Cost Categories Applied for the Calculation of Statewide Costs

Cost Category	Average Cost per SCH
Full-Time College Teacher	\$87.56
Part-Time College Teacher	\$35.03
High School Teacher	\$14.29
College Administration and Advising	\$38.51
District and High School Administration and Advising	\$46.39
Small District Additional Administration Cost	\$22.58
District and High School Other Costs	\$17.48
Costs to Students	\$12.83
ECHS High School Staffing Adjustment	\$9.14

Note: The costs noted here do not add up to the total cost per SCH. Each course will either be taught by a full-time college, part-time college, or high school teacher. Additionally, this table does not include savings to school districts when dual-credit courses are taught by college faculty. These savings depend on the proportion of dual credit taught by college faculty as opposed to high school teachers.

In addition to calculating pretuition average costs, we applied some typical tuition arrangements to examine how tuition arrangements, if applied statewide, would shift the cost burden of dual-credit. Across districts and community colleges in our study, two colleges waived tuition and fees, and tuition and fees in the remaining colleges ranged from \$22 to \$50 per SCH. The first tuition arrangement was that all tuition and fees were waived. The next three tuition arrangements assumed that the college charged \$40 per SCH in tuition and fees—an amount within the range of tuition and fees represented in our sample. In the second scenario, the district pays the entire tuition amount; in the third scenario, the student pays the entire amount, and in the fourth, the cost is split evenly between the district and student.

Statewide, the cost of dual credit is \$111 per SCH; colleges bear 77% of the cost prior to any tuition and fee arrangements.

Statewide, we calculate an overall cost per SCH of \$111. When tuition is waived completely, 77% of the overall burden of dual credit (\$86 per SCH) is borne by the community colleges, 11% is borne by school districts (\$12 per SCH), and 12% is borne by students (\$13 per SCH). When

\$40 of tuition and fees is charged per SCH, the cost to colleges is reduced substantially and community colleges end up paying 41% of the overall cost for dual credit.

When colleges charge tuition, districts can choose whether to cover that cost out of the district budget in full, in part, or not at all. Any amount of tuition and fees not covered by the district must be paid by students and their families. In the three scenarios where \$40 of tuition and fees is charged per SCH, the amount of tuition and fees represents 36% of the overall cost of dual-credit instruction. Tuition and fees represent a transfer of cost away from the college to districts or students. In the case where the district pays the full tuition amount, the cost to districts increases from \$12 per SCH to \$52 per SCH, increasing the share of dual-credit paid for by the district from 11% to 47%.

Alternatively, the district could choose to not pay for tuition and fees. In this scenario the entire tuition amount is paid for by students and their families, increasing the cost to students from \$13 to \$53 per SCH, and increasing the share of dual-credit paid for by students from 12% to 48%. Lastly, the district could choose to partially pay for dual-credit. In the case of one of our sampled districts, the district paid for dual credit only for students who were eligible for free or reduced-price lunch. In another district, the district purchased blocks of commonly taken dual-credit courses, but if students wanted to take a course outside of those common courses, the students had to pay. In many partnerships, districts and students share the costs of dual-credit tuition and fees. To model this scenario, we assumed the district paid for half. As shown in the column furthest to the right in Table 4.4, the increased cost burden for dual-credit was shared equally between districts and students when the tuition is equally shared (districts pay 29% of the costs and students pay 30%).

Table 4.4. Statewide Costs per SCH and Total Costs

	Tuition Waived		Tuition Paid by District		Tuition Paid by Student		Tuition Split Between District and Student	
	Cost	Share	Cost	Share	Cost	Share	Cost	Share
College Costs per SCH	\$86	77.3%	\$46	41.2%	\$46	41.2%	\$46	41.2%
District Costs per SCH	\$12	11.1%	\$52	47.2%	\$12	11.1%	\$32	29.1%
Student Costs per SCH	\$13	11.6%	\$13	11.6%	\$53	47.8%	\$33	29.7%
Overall Costs per SCH	\$111		\$111		\$111		\$111	
College Total Costs	\$94,107,160		\$50,086,440		\$50,086,440		\$50,086,440	

	Tuition Waived	Tuition Paid by District	Tuition Paid by Student	Tuition Split Between District and Student
District Total Costs	\$13,455,302	\$57,476,024	\$13,455,302	\$35,465,664
Student Total Costs	\$14,119,646	\$14,119,646	\$58,140,368	\$36,130,008
Overall Total Costs	\$121,682,108	\$121,682,110	\$121,682,110	\$121,682,112

Note: The total costs are estimates based on 1,100,518 SCHs delivered in Texas in 2016–17.

Total estimated costs of dual-credit in 2016–17 were more than \$121 million statewide.

When examining estimated total costs, rather than costs per SCH, we can see that these changes in tuition and fee arrangements have large implications for the dollars being contributed to dual-credit education by colleges, school districts, and students. In total, dual-credit in 2016–17 cost more than \$121 million statewide.²¹ If tuition and fees were waived statewide, colleges would pay approximately \$94 million of the total, while districts would pay \$13 million, and students would pay \$14 million. Charging \$40 of tuition and fees per SCH statewide would result in a shift of \$44 million away from colleges to districts and students.

Costs per SCH and who bears the cost of dual credit vary substantially according to the type of dual-credit instructor.

As mentioned previously, the factor that seemed most predictive of costs, and who bears the costs, is who is teaching the courses. In Table 4.5, we show our estimates of average costs for partnerships where more than 75% of dual-credit instruction is taught by full-time college instructors, part-time college instructors, or high school instructors. Based on these estimates, who teaches the course has substantial implications for overall cost of dual credit and who bears the cost. In the tuition waived scenario, when full-time college instructors teach more than 75% of dual credit, the overall cost per SCH is \$109 with colleges picking up 98% of the overall cost. Charging \$40 in tuition and fees reduces college costs to \$67 or 61% of the overall cost, shifting the cost to districts and students.

Having part-time college teachers as the primary dual-credit instructors is the least costly scenario at only \$82 per dual-credit SCH. In this scenario, with tuition waived, colleges still pick

²¹ This is based on the amount of semester credit hours provided for each dual credit partnerships. Because of data privacy issues, small partnerships serving less than 5 dual credit students were not included in the data we received. Therefore, this represents a slight underestimate of the cost of dual credit statewide.

up the bulk of the cost. However, given the smaller overall cost, charging tuition and fees reduces college costs to only \$34 per SCH, or 42% of the overall cost. In both cases where instruction occurs primarily through full-time or part-time college staff, school districts receive a cost savings of not having their own instructional staff teach students for the time they are in dual-credit courses. When instruction is primarily delivered by college faculty the cost to districts, when not charging tuition, is negative. This means, school districts save money by participating in dual credit when teachers other than high school teachers are delivering the instruction. Several community colleges in our study have accounted for the differential cost burden by charging a fee when college instructors teach dual credit, but waiving fees when dual credit is taught by a high school teacher.

In the case of high school instructors teaching dual credit, the overall cost per SCH is \$126 dollars, with school district bearing the most cost at \$60 per SCH, or 48% of the overall cost, and colleges paying \$53 per SCH (42%). If, in this case, \$40 in tuition and fees were assessed to school districts, school districts would end up paying almost 80% of the cost of dual credit, with colleges only paying 10% of the cost. In this case, it does not seem like charging the full amount of tuition and fees would be reasonable. In fact, at several of the community colleges we interviewed, discounted rates for dual-credit courses were provided when classes were taught by high school instructors. This is also evident in many MOUs between colleges and school districts regarding the provision of dual-credit instruction.

Table 4.5. Average Costs per SCH According to Predominant Instructor Type

	Tuition Waived		Tuition Paid by District		Tuition Paid by Student		Tuition Split Between District and Student	
Partnerships with more than 75% Full-Time College Instructors								
College Costs per SCH	\$107	98.2%	\$67	61.3%	\$67	61.3%	\$67	61.3%
District Costs per SCH	-\$11	-10.0%	\$29	26.8%	-\$11	-10.0%	\$9	8.4%
Student Costs per SCH	\$13	11.8%	\$13	11.8%	\$53	48.6%	\$33	30.2%
Overall Costs per SCH	\$109		\$109		\$109		\$109	
Partnerships with more than 75% Part-Time College Instructors								
College Costs per SCH	\$74	90.4%	\$34	41.5%	\$34	41.5%	\$34	41.5%
District Costs per SCH	-\$5	-6.1%	\$35	42.8%	-\$5	-6.1%	\$15	18.3%

	Tuition Waived		Tuition Paid by District		Tuition Paid by Student		Tuition Split Between District and Student	
Student Costs per SCH	\$13	15.7%	\$13	15.7%	\$53	64.6%	\$33	40.1%
Overall Costs per SCH	\$82		\$82		\$82		\$82	
Partnerships with more than 75% High School Instructors								
College Costs per SCH	\$53	42.2%	\$13	10.4%	\$13	10.4%	\$13	10.4%
District Costs per SCH	\$60	47.6%	\$100	79.4%	\$60	47.6%	\$80	63.5%
Student Costs per SCH	\$13	10.2%	\$13	10.2%	\$53	42.0%	\$33	26.1%
Overall Costs per SCH	\$126		\$126		\$126		\$126	

Note: Partnerships with more than 75% of SCHs delivered by full-time college instructors, delivered 249,588 SCHs, representing 22.7% of all dual credit. Partnerships with more than 75% of SCHs delivered by part-time college instructors delivered 64,231 SCHs, representing 5.8% of all dual credit. Partnerships with more than 75% of SCHs delivered by high school teachers delivered 128,767 SCHs, representing 11.7% of all dual credit.

While costs of dual credit are similar in traditional and ECHS partnerships, the college bears more cost in ECHS partnerships.

When examining the estimated costs of Early Colleges compared with traditional partnerships, students attending ECHSs take more dual-credit course compared to students in traditional high schools, so dual-credit delivery at ECHSs is more resource intensive on a per-student basis, but there is relatively little difference, on average, in costs per SCH. Traditional models, on average have slightly lower college costs, but higher district costs per SCH compared with Early Colleges. This is the result of Early Colleges being less likely to use high school teachers to deliver dual credit, generating additional costs for colleges and cost savings from reduced teaching staff for high schools.

Table 4.6 Average Costs per SCH According to Predominant Instructor Type

	Tuition Waived		Tuition Paid by District		Tuition Paid by Student		Tuition Split Between District and Student	
Traditional (non-ECHS) Partnerships								
College Costs per SCH	\$82	74.1%	\$42	37.9%	\$42	37.9%	\$42	37.9%
District Costs per SCH	\$16	14.3%	\$56	50.5%	\$16	14.3%	\$36	32.4%
Student Costs per SCH	\$13	11.6%	\$13	11.6%	\$53	47.7%	\$33	29.7%
Overall Costs per SCH	\$111		\$111		\$111		\$111	
ECHS Partnerships								
College Costs per SCH	\$95	86.3%	\$55	50.0%	\$55	50.0%	\$55	50.0%
District Costs per SCH	\$2	2.0%	\$42	38.3%	\$2	2.0%	\$22	20.2%
Student Costs per SCH	\$13	11.6%	\$13	11.6%	\$53	47.9%	\$33	29.8%
Overall Costs per SCH	\$110		\$110		\$110		\$110	

Note: Partnerships with more than 75% of SCHs delivered by full-time college instructors delivered 249,588 SCHs, representing 22.7% of all dual credit. Partnerships with more than 75% of SCHs delivered by part-time college instructors delivered 64,231 SCHs, representing 5.8% of all dual credit. Partnerships with more than 75% of SCHs delivered by high school teachers delivered 128,767 SCHs, representing 11.7% of all dual credit.

Funding for School Districts and Community Colleges

Funding for School Districts

Texas uses a foundation formula as the primary method for allocating funding across school districts, known as the Foundation School Program (FSP). The FSP has two main components – operations funding and facilities funding. For the purposes of this study, we focus on operations funding because this is the funding intended to cover the ongoing expenses school districts face in providing instruction to students (TEA, 2017).

The operations component of the FSP operates through two formulas, called Tier I and Tier II. Tier I provides schools with a basic level of funding, allotting schools districts funding for the regular education program, as well as for programs related to student needs, such as special

education, CTE, English learner education, compensatory education, and several others. Tier II consists of supplemental funding provided to districts who set higher tax rates than the minimum required to receive Tier I funding.

Each district's enrollment size, student characteristics, and local tax rates determine the district's per-student funding level. The per-student funding level is multiplied by the average daily attendance, or the total number of students in attendance for each instructional day divided by the number of instructional days in the district, to determine each district's total funding level.

School districts do not receive any additional state funding for students taking dual-credit courses.

In total, Tier I FSP funding provides approximately \$7,400 per student, with slightly less than half provided by the state and slightly more than half coming from local revenue.²² As such, an average high school student, taking seven courses per semester over a year, is funded at a rate of approximately \$530 per semester-long class (or \$177 per semester hour equivalent assuming a class equals three SCHs). Students who enroll in dual-credit courses, regardless of whether the courses take place on a high school campus or a community college campus, count toward a district's average daily attendance. In other words, districts receive the same level of funding per student regardless of the number of students who enroll in dual credit. Because school districts would be funded at the same levels in the absence of dual credit, the marginal funding from students taking dual-credit courses is \$0.

Funding for Community Colleges

Community colleges are funded by the state on a per contact hour basis. As a rule of thumb, one SCH equates to 16 contact hours. On a yearly basis community colleges report to the THECB the expenses per contact hour of various types of courses. The state then determines the percentage of contact hour expense they can cover based on the available budget and funds community colleges at a rate equivalent to the average reported expense per contact hour multiplied by the percentage of contact hour expenses funded by the state. Funding rates for 2016–17 varied from \$2.21 per contact hour for psychology, social sciences, and history courses to \$9.41 per contact hour for career pilot courses. In general, CTE courses, such as those for health occupations, had higher funding per contact hour with funding rates in the \$3

²² Calculations made using the *Statewide Summary of Finances Report* for the 2016–17 school year. <https://tealprod.tea.state.tx.us/fsp/Reports/ReportSelection.aspx>

to \$5 per contact hour range, while academic courses such as English, mathematics, and sciences generally had funding rates around \$2.40 to \$2.50 per contact hour.

Community colleges receive approximately \$38 per SCH for academic dual-credit instruction.

Because our focus for the cost analysis is on academic courses, we assume an average funding rate of \$2.40 per contact hour. Based on the rule of thumb of 16 contact hours per SCH, community colleges are funded at a rate of \$38.40 per SCH for academic dual-credit courses. This rate is the same regardless of whether a student is a dual-credit student or a traditional college student. If dual-credit opportunities were not available to high school students, those students would not attend the community college as dual-credit students. Therefore, the marginal funding for each dual-credit SCH is the full funding amount per SCH of \$38.40.

Comparison of Funding and Costs

State funding provided to colleges does not cover the costs to colleges when tuition is waived.

As described in the section on costs, on average, when tuition is waived completely, the cost to colleges is approximately \$86 per SCH, the cost to districts is approximately \$12 per SCH, and the cost to students is approximately \$13 per SCH. Given that community colleges receive approximately \$38 per SCH in state funding per dual-credit SCH delivered, the remaining cost for colleges is approximately \$47 per SCH. This amounts to \$51.8 million statewide, when the cost per SCH is multiplied by the total number of dual-credit SCHs delivered. This is much higher than the cost burden to districts and students (\$13.5 million and \$14.1 million, respectively).

For colleges, the remaining deficit of \$51.8 million must be made up through other revenue sources. The most common revenue sources available would be local funding and charging tuition and fees for dual credit. As previously discussed, when colleges charge tuition, it usually ranges from around \$25 to \$50 per SCH. In this case, any tuition less than \$47 per SCH would result in a remaining cost that would have to be funded through tuition from non-dual-credit students or revenue from local taxes.

Because school districts do not receive additional funding for dual credit, they must cover dual-credit costs from existing revenue sources.

In contrast to colleges, school districts do not receive additional funding from providing dual-credit instruction. Therefore, any costs related to dual credit must be covered from their existing revenue sources. Because the costs of dual credit for school districts vary substantially

depending on the arrangement of dual-credit instruction, in some cases it may make sense to charge some amount of tuition and fees to school districts. In particular, when dual credit is largely delivered by college faculty rather than high school teachers, the burden to the college increases, and the burden on school districts decreases. In many cases, districts actually save money through this arrangement due to reductions in teaching staff. In these cases, it would make sense to charge some tuition to districts to even out the cost burden. However, when high school teachers teach dual credit, more of the cost burden shifts from the school district to the college. Therefore, in these circumstances, charging the school districts tuition would only exacerbate the already increased burden of dual credit placed on districts.

Benefits of Dual-Credit Course Taking

The analysis of the impacts of taking dual-credit courses on outcomes shows several statistically significant impacts. We separate the outcomes into two types. The first type are outcomes that have immediate impacts on how much is being spent on higher education by students and their families or by public dollars supporting higher education. These outcomes include the total number of credits completed to earn a four-year degree, the number of college credits needed after completing high school to earn a four-year degree, and the amount of time after high school required to complete a four-year degree. The benefits related to these outcomes can be calculated through extant data on college spending per student and short-term earnings information on the wage rate of a typical college graduate entering the workforce. Furthermore, these benefits are limited to the 4 to 6 years when a student would typically be enrolled in college after completing high school.

Table 4.7 displays the effects of dual credit on these outcomes. As shown, taking dual credit actually increases the total number of credits to degree for a typical dual-credit student. However, each dual-credit student took almost eight fewer credits after high school to earn a college degree compared with non-dual-credit students. This indicates that the increase in overall credit to degree is largely in the form of dual-credit courses and that there may be some inefficiency in dual-credit course taking, where not all dual-credit courses count toward the completion of a four-year degree. Lastly, a typical student who took dual credit and went on to complete a four-year degree was able to graduate in slightly less time than students who did not take dual-credit and completed a four-year degree. This time amounts to more than one month per student. Alternatively, this could be thought of as one of 12 dual-credit students finishing a year earlier.

Table 4.7. Effects of Dual-Credit Course Taking on Credits and Time to Degree

Outcome	Effect	Interpretation
Credit to degree	4.2 more credits per dual-credit student	Each dual-credit student completing a four-year college degree took four more credits in total.
Credit in college to degree	7.8 fewer credits after high school completion per dual-credit student	Each dual-credit student took almost eight fewer credits after high school to earn a college degree compared with non-dual-credit students.
Time to degree	1.0 fewer months to degree after high school completion of those who completed	1 out of 12 dual-credit students finished a year earlier compared with non-dual-credit students.

The second type are outcomes related to increased enrollment in two- or four-year colleges and completion of two- or four-year colleges. In contrast to the previous outcomes, which have only short-term benefits relating to credits and time to degree completion, the benefits of enrolling in and completing a two- or four-year college education accrue over a life time.

McMahon (2009) categorizes the benefits of higher education into three types:

- Private market benefits: The increased benefits in the form of higher earnings to those who completed more years of higher education
- Private nonmarket benefits: The increased benefits, such as better health, to those who completed more years of higher education in all forms other than earnings
- Social benefits: The benefits to society from having more educated citizens

We will adopt this framework for accounting for the benefits of dual credit related to enrolling in and completing higher education.

The research team examined numerous outcomes related to enrolling in and completing higher education; however, many of the outcomes are strongly related or interdependent on one another. Therefore, for the purposes of the benefits analysis we focus on one outcome. Results from the impact study indicate that students who took dual credit are 2.2% more likely to complete a two-year certification or degree. In other words, slightly more than two out of 100 students completed at least 2 years of higher education who would not have done so if they were not able to take dual-credit classes in high school.

All other outcomes examined related to long-term academic outcomes were positive, but many were not statistically significant. The absence of any negative outcomes means that the increase in two-year credentials did not displace other outcomes. In other words, the increase in two-year credentials came from the pool of students who would not have obtained any higher-education credentials because there was no decrease in the likelihood of students completing a four-year degree.

Calculation of Benefits

Following we present our calculation of benefits. All benefits presented here are converted to net present value 2017 dollars. One caveat for the benefits calculations and the subsequent comparisons of costs to benefits is that these benefits calculations are based on dual credit that was delivered from 2001 to 2014, while our cost estimates are based on the 2016–17 school year.²³ As mentioned previously, dual-credit instruction has changed rapidly over the past decade. If the impact estimates measured from these years do not accurately depict the impact of dual-credit in 2016–17, there will be misalignment between our estimated benefits and costs.

Time to a Four-Year Degree

As mentioned previously, the results from the impact analysis indicate that dual-credit students take more overall credits (due to inefficiency in dual-credit courses counting toward a degree); however, dual-credit students end up taking fewer college courses after high school completion and complete a four-year college degree in less time compared with students who did not take any dual-credit courses in high school. Any costs associated with the additional courses taken as dual-credit courses during high school are captured by our cost estimates of dual credit. Thus, our benefits analysis must still account for the reduction of credits after high school and decreased time to degree. Because time to degree should be dependent on credits earned, we chose to focus our benefits calculation on time to degree.

²³ Impacts for two-year college outcomes are based on cohorts of juniors from 2001 to 2013. Impacts on time to degree are based on cohorts of juniors from 2001 to 2008.

Benefits from graduating a year earlier include reduced tuition and fees, costs of books and supplies, as well as an additional year of earnings from entering the workforce earlier.

We started by determining the benefits of reducing by one year the time required to complete a four-year degree. For simplicity, we focus first on the benefits of reducing time to degree by one year, and then adjust these figures to the point estimates from the impact study. On average, Texas four-year public colleges spent \$17,148 per full-time equivalent student.²⁴ Students bear some of this cost in the form of tuition and fees. Average yearly tuition and fees for these schools amounted to \$8,379 (just under half of overall spending). In addition, students on average paid \$1,150 in books and supplies. Therefore, the benefits of not paying for one more year of college are split fairly evenly across the students who must pay tuition and buy textbooks and supplies and the taxpayers who fund the remaining cost of college.

In addition to spending less on college, a student who graduates earlier can enter the workforce earlier. According to a survey from the National Association of Colleges and Employers (2017), the average starting salary for a recent bachelor's degree graduate of the class of 2017 was \$51,022. Therefore, students who graduate a year earlier potentially earn an extra \$51,022 in the year they would have spent in college had they not graduated a year earlier. We make the assumption that 80% of this salary would be take-home pay and 20% would be tax revenue.

Converted to net present value, the overall benefit of graduating one year earlier is approximately \$61,590, with \$44,732 benefiting the student directly and \$16,858 benefiting the public. However, the impact estimate indicates that dual-credit students spend about one twelfth of a year less in school rather than a full year. Additionally, because this outcome was measured only for students who went on to complete a four-year degree, it only applies to approximately 25% of students. Therefore, the average benefit per dual-credit student resulting from less time to completion is about \$898 in personal benefits, \$338 in public benefits, and \$1,236 overall, for a student who takes at least one dual-credit course, compared to a student who does not take any. Because dual-credit students on average complete approximately 9.5 SCHs during high school, the overall benefits on a per SCH basis amount to \$131, as shown in Table 4.8.

²⁴ Calculated using data from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) for public four-year colleges in Texas.

Table 4.8. Benefits Attributed to Dual-Credit Enrollment Resulting From Reduced Time to Degree

	Benefits of Graduating 1 Year Earlier	Benefits per Student Attributed to Dual-Credit Enrollment	Benefits per SCH
Student	\$44,732	\$898	\$95
Public	\$16,858	\$338	\$36
Overall	\$61,590	\$1,236	\$131

Note: The “benefits of graduating 1 year earlier” are the total benefits of a single student graduating 1 year earlier. The “benefits per student attributed to dual-credit enrollment” are the total benefits shown in the first column multiplied by the impact of less time to completion for four-year graduates (0.102 fewer years) and the proportion of dual-credit students this impact applies to (0.25). The “benefits per SCH” are the benefits attributed to dual credit divided by 9.5 (the average number of SCHs taken by dual-credit students).

Lifetime Benefits of Completing a Two-Year Degree

In addition to the short-term benefits resulting from finishing a four-year degree sooner, students participating in dual-credit courses as high school students were also 2.2% more likely to receive a two-year credential and were as likely to have graduated from a four-year college. This indicates an overall increase in higher education for dual-credit students, resulting from increased completion of two-year credentials. Increased education as a result of taking higher education classes results in a host of benefits that accrue over an individual’s lifetime.

McMahon (2009) calculates the benefits of higher education in three buckets: private market benefits, private nonmarket benefits, and social benefits. McMahon argues that the benefits from higher education are due to the increased human capital gained from taking higher education classes and argues against the notion that a diploma simply identifies individuals with higher ability (who would have that higher ability whether they completed any higher education or not). Based on human capital theory, the more time engaged in higher education the more productive individuals should be, regardless of whether they obtained a degree or not. However, many of the previously calculated benefits of higher education compare individuals based on their terminal degrees, bachelor’s graduates compared to high school graduates for example.

Workers with associate’s degrees earn between \$145,000 and \$348,000 more than those with only high school diplomas over their lifetime.

McMahon (2009) estimates an average yearly private market benefit of \$8,220 (in 2017 dollars) for each year of higher education completed. Assuming those who complete a two-year credential have 2 additional years of higher education compared to those who did not, and assuming a career lasts 40 years (age 25 to 65), this amounts to \$347,746 in net present value private market benefits for each student obtaining an additional 2 years of higher education.

Several alternative estimates to private market benefits are slightly more conservative. Hershbein and Kearney (2014) estimate that individuals with associate’s degrees earn almost \$284,000 more than individuals with high school diplomas. Agan (2014) estimates that individuals with AA degrees earn almost \$145,000 more than high school graduates.²⁵

Private nonmarket benefits, such as improved health and longevity, may be worth more than the increase in earnings.

While many studies of benefits of higher education stop at the private market benefits, McMahon (2009) argues that the private nonmarket benefits are as large or larger than the private market benefits. The private nonmarket benefits included in McMahon’s overall calculation include improvement in one’s own health, living a longer life, improvement in health of individual’s children, better education and cognitive development for individual’s children, better spousal health, better management of family size (fewer children), and better consumer choices and ability to save money. In addition, McMahon argues that additional benefits that could not be easily assigned dollar values include happiness, job location and amenities, and lifelong learning. Based on McMahon’s calculations, the private nonmarket benefits of higher education are more than 20% greater than the private market benefits. Based on these calculations, total lifetime private nonmarket benefits of 2 years of higher education amount to more than \$425,000 per student. This figure is shown in Panel A of Table 4.9 as a private, non-market benefit for students.

²⁵ The estimates in Agan (2014) are particularly conservative because only 30 years after turning 18 are included in these calculations. Workers typically work much longer.

Table 4.9. Lifetime Benefits of a Two-Year Credential

	Benefits of 2 Years of Higher Education	Benefits per Student Attributed to Dual-Credit Enrollment	Benefits per SCH
Panel A. Estimates from McMahon, 2009			
Private Market	\$347,746	\$7,581	\$801
Private Nonmarket	\$424,769	\$9,260	\$979
Social	\$309,280	\$6,742	\$713
Overall Benefits	\$1,081,795	\$23,583	\$2,493
Panel B. Estimates from Agan, 2014 and from Carroll and Erkut, 2009			
Private Market	\$144,884	\$3,158	\$334
Social	\$62,759	\$2,067	\$219
Overall Benefits	\$207,643	\$5,226	\$552

Note: All dollars represent net present value \$2017 dollars. The “benefits of 2 years of higher education” are the total benefits of a single student obtaining 2 years of higher education compared with a high school graduate. The “benefits per student attributed to dual-credit enrollment” are the total benefits shown in the first column multiplied by the impact of dual-credit on obtaining a two-year credential (0.0218). The “benefits per SCH” is the benefits attributed to dual-credit divided by 9.5 (the average number of SCHs taken by dual-credit students).

The benefits to society and savings on governmental spending resulting from more education are also substantial.

In addition to benefits to the individuals who engage in higher education, there are also societal benefits—what McMahon calls social benefits—accruing to the population regardless of whether they participated in higher education or not. In this group of benefits, McMahon includes democratization (or functioning governmental institutions), support of human rights, political stability, increased life expectancy, reduced economic inequality, reduced crime, decreased costs of social supports (welfare, health care, prison costs), and improved environment. McMahon estimates that the sum of these social benefits is almost as high as private market benefits. Lifetime social benefits for each individual participating in two additional years of higher education amount to more than \$309,000.

McMahon’s concept of social benefits is certainly very inclusive of a wide range of benefits. In contrast, Carroll and Erkut (2009) and Trostel (2010) calculate benefits to the government from

individuals participating higher education. Carroll and Erkut (2009) simply accounts for the increased tax revenue brought in by individuals with higher education levels and the decrease in governmental spending on social programs and prisons. Their estimated benefits for individuals with some college are much more conservative at \$62,759. Trostel (2010) also accounts for various types of taxes and decreased governmental spending on social supports and calculates a benefit of \$229,525 for individuals earning a bachelor's degree. If we assume that the benefit from an associate's degree is half as much as a bachelor's degree, this would amount to benefits of \$114,762. These figures are shown in Panel B of Table 4.9 as social benefits.

Total benefits attributable to dual-credit education from earning a two-year credential are large.

Summing up the private market, private nonmarket, and social benefits from McMahon (2009), the total lifetime benefit for a student completing a two-year credential amounts to a little more than \$1 million. Summing up the most conservative estimates of private and social benefits from 2 years of college yields an estimate for total benefits of almost \$208,000, as shown in the bottom row of Panel B of Table 4.9.

The impact estimate indicates that students who took dual-credit are 2.2% more likely to earn a credential from a two-year college, indicating completion of 2 years of college. Applying the impact estimate to the benefits of 2 years of higher education, the benefit per dual-credit student is almost \$24,000: \$7,600 in private market benefits, \$9,300 in private nonmarket benefits, and \$6,700 in public benefits. When converted to a per SCH basis, the overall lifetime benefits amount to almost \$2,500 per dual-credit SCH taken. Even when we use the more conservative estimates of benefits from Agan (2014) and Carroll and Erkut (2009), shown in Panel B of Table 4.9, the benefits come to \$552 per SCH resulting from being more likely to complete 2 years of higher education.

Comparison of Costs and Benefits

The benefits attributable to dual credit far exceed the costs of dual credit.

With average statewide costs of \$111 per SCH, the benefits that result from reduced time to degree for four-year graduates alone is larger than the costs. Specifically, the benefits of reduced time to degree of \$131 per SCH exceed the costs by \$20 per SCH, resulting in a benefit-to-cost ratio of 1.18, meaning that the benefits from reduced time to degree alone are 18% higher than the cost. In other words, each dollar invested in dual credit returns \$1.18 from students spending less time in college and entering the workforce earlier.

The estimated benefit-cost ratio of 1.18 only includes the benefits associated with dual-credit students finishing college earlier, compared to college completers without dual credit. Dual credit also increases the likelihood a student completes a two-year credential, which provides monetary benefits over the student's lifetime. Using a conservative estimate of \$552 per SCH for lifetime benefits from earning a two-year credential, the benefits exceed the cost by \$441. This results in a benefit-to-cost ratio of 4.98, meaning that the lifetime benefits of dual credit exceed the cost by almost 400%. Using the more inclusive set of benefits specified by McMahan (2008), the benefits exceed the costs by almost \$2,400 and the benefit-to-cost ratio is almost 22.

The social benefits under the most conservative approach represent benefits to the government from increased tax revenue and decreased social spending. The social benefits from earning two-year credentials exceed the cost of dual credit by \$107, for a benefit to cost ratio of almost 2.0. This indicates it is well worth the public investment in dual-credit opportunities. With that said, the private return is even higher, indicating that students and families should also be willing to contribute to the cost of dual credit.

Chapter Conclusion

In this chapter, we examined the cost of dual credit, reported average costs per SCH and total costs of dual credit in the state, examined which stakeholders bear the cost of dual credit under several tuition and fee scenarios, and compared the costs of dual credit to calculated benefits of dual credit. Following, we summarize our key findings:

- **Overall cost of providing dual-credit instruction is \$111 per SCH, or \$121.7 million statewide in 2016–17.** On average, the cost of dual-credit education to colleges far outweighs the additional state funding they receive from providing dual-credit instruction. When community colleges waive tuition, the average cost of dual credit for community colleges is \$86 per SCH (77% of the total cost). Community colleges receive, on average, \$38 per SCH in state funding.
- **Tuition and fees arrangements vary widely across the state and have significant effects on the distribution of costs.** When tuition is waived, colleges bear 77% of the cost, compared to 11% for districts and 12% for students, on average. Conversely, when districts pay tuition for dual-credit students, colleges pay, on average, 41% of costs, school districts pay 47%, and students pay 12%. In some regions, tuition is waived for most classes, and districts pay the costs of textbooks and placement test fees so that the upfront cost to the student is effectively zero.

- **The strongest predictor of overall costs and how costs are distributed across stakeholders is the type of instructor teaching the course.** Assigning part-time college faculty to teach dual-credit courses is the least expensive delivery mechanism; however, this approach may not be the most cost-effective because high school teachers or full-time college faculty may be more effective instructors. Full-time college faculty members are 2.5 times more expensive, on average, than part-time college faculty on a per SCH basis. When courses are taught by college faculty, colleges bear more of the cost of dual-credit, and school districts receive cost savings resulting from a reduction in the instructional burden on high school teachers. The cost of dual-credit education is shifted from colleges to school districts when courses are taught by high school teachers. Because of the difference in cost burden according to who teaches the course, colleges should consider charging differential tuition rates for various teaching arrangements (a model used in some of the sites we sampled).
- **The costs of dual-credit delivered through ECHSs is greater overall, but similar on a per-SCH basis.** Although ECHSs generally have greater staffing levels per student, each student in an ECHS receives a greater number of SCHs, compared to students enrolling in dual credit in traditional comprehensive high schools. As a result, the cost per SCH of administration and advising is only slightly higher in ECHSs. ECHSs typically shift a substantial proportion of costs from school districts to colleges because ECHSs are more likely to have dual-credit courses taught by college faculty, rather than high school teachers.
- **The short-term benefits related to reduced time to degree are 1.18 times the cost of dual credit. Long-term monetary benefits associated with a greater number of college graduates are almost five times the cost of dual credit.** Benefits from reduced time to degree were \$131 per SCH—18% larger than the cost of dual credit. The most conservative estimate of lifetime benefits from increased earning of two-year credentials was \$552 per SCH—almost 400% larger than the cost of dual credit. The considerable value of benefits compared with costs suggests that investments in dual credit will result in large future payoffs to both individuals participating in dual credit and the public at large.

Chapter 5: Conclusion

Dual-credit education represents an alternative to business-as-usual educational programming and has the potential to integrate secondary and postsecondary sectors, widen college opportunities, and boost college completion as a result. Dual-credit education programs, which are jointly delivered by high schools and postsecondary education institutions, concomitantly award high school and college credit to students who enroll in college-level coursework (Bragg & Kim, 2004). Although originally developed to provide academically challenging content to high-achieving students, dual-credit education programs across the United States now enroll high school students with varying degrees of academic preparation and exposure to college and with an array of postsecondary education goals and expectations.

Texas has witnessed a dramatic increase in dual-credit enrollment. Between fiscal years 2000 and 2016, the count of high school students taking at least one dual-credit course rose from approximately 18,524 to 204,286, an increase of well over 1,100%. This rapid and substantial increase has led to growing debate among Texas policymakers and practitioners regarding whether dual-credit education can deliver on its promise to narrow demographic and economic gaps in college enrollment and graduation and whether it can do so in an economically viable way. This study builds on the findings from the Phase I report (Miller et al., 2017) to provide lawmakers and other key stakeholders with answers to six RQs that have emerged from these debates surrounding dual-credit education in Texas:

- RQ 1 To what extent does dual-credit education increase college enrollment, credential attainment, and efficient degree completion?
- RQ 2 How do high school counselors and college advisors select students for dual-credit education, advise them into enrolling in dual-credit courses, and coordinate advising services?
- RQ 3 How are dual-credit students taught and assessed relative to college-credit only students?
- RQ 4 What are the annual costs of delivering dual-credit education, and how are they distributed among stakeholders? Also, how do these costs compare to the benefits of dual-credit education?
- RQ 5 Which factors contribute to racial and ethnic disparities in dual-credit participation?
- RQ 6 What were the patterns in dual-credit participation, success, and delivery before and after passage of HB 505?

Following, we present the most salient findings from our investigation into each question, starting with RQ 1 and ending with RQ 6.

Causal Impact Study Component

Participation in dual-credit programs prior to passage of HB 505 modestly improved a range of student outcomes, suggesting that impact estimates reported in previous descriptive studies were too high. Previous studies show that dual-credit participants have significantly better short- and long-term educational outcomes than nonparticipants. However, these studies fail to consider that students who enroll in dual credit often enter such programs with more resources and with higher levels of achievement compared with students who do not participate in dual credit. By taking these differences in account during this study, we found that participation in dual-credit programs only modestly improved student outcomes. Specifically, results showed the following overall effects of dual-credit programs:

- Did not increase high school graduation rates
- Increased college enrollment by 2.4 percentage points, primarily through increased enrollment at two-year colleges
- Increased college completion by 2.2 percentage points by increasing attainment of all types of postsecondary credentials
- Increased the total number of SCHs to a four-year degree by 2.9 SCH, but decreased the time-to-degree by 1.2 months, or approximately one summer term

The effect on student outcomes of participation in dual-credit programs prior to passage of HB 505 was more positive for traditionally advantaged student groups; the effect was negative in some cases for less advantaged groups. Our analysis indicated that dual-credit participation increased enrollment and completion—primarily at four-year colleges—for White students. For Black and Hispanic students, dual-credit participation increased enrollment at two-year colleges but did not meaningfully influence college completion rates. We also found that students with eighth-grade standardized test scores one standard deviation above the mean in mathematics and reading benefited significantly more from dual-credit participation than did students with lower scores. Of particular concern, we found that, on average, the impact of dual-credit participation for students who were eligible for free or reduced-price lunch was negative for most outcomes. However, further analyses suggest that these patterns were likely due to the fact that free and reduced price lunch eligible students were more likely

than ineligible participants to have lower 8th grade standardized test scores that hindered their success in dual credit education courses.

Advising Study Component

Most high school guidance counselors played the primary role in advising dual-credit students, with one quarter sharing this responsibility with college advisors. Overall, high school counselors served as the primary advisors for dual-credit students relative both to selecting or determining student eligibility for dual-credit education and to working with students to select dual-credit courses. High school guidance counselors also served a vital role in terms of coordinating dual-credit student registration, course scheduling, activities to build dual-credit awareness, and student participation.

College advisors typically played a secondary role in advising dual-credit students, serving as the key point of contact for high school counselors and sharing information about dual credit with prospective students and their families, except in special circumstances. College advisors were most frequently involved in delivering general, in-person dual-credit education information sessions to prospective students and their families, usually annually or biannually. These sessions were used to share information about key features of a dual-credit program, student eligibility, course offerings, the registration process, and required forms. In addition, college advisors consistently described being in regular contact with high school counselors to answer questions about course offerings and student course selections and to ensure that advising processes and procedures were coordinated between partners. Generally, college advisors became more directly involved in advising individual students only under special circumstances involving accelerated students, freshmen and sophomores, or students with performance issues; or advising outside of the Texas Core Curriculum or relative to CTE dual-credit programs.

The extent to which high school counselors and college advisors actively targeted students for dual-credit education varied based on several factors, including state and district policies and school philosophies regarding which students could benefit from and succeed in dual-credit courses. All interviewees indicated that they targeted students for dual-credit programs based on a combination of state rules, district policies, and MOUs that were in place with their partners. Within these parameters, there was some variation in the extent to which high school counselors and advisors actively recruited or encouraged certain types of students to apply to dual-credit programs. For example, some schools strongly encouraged all students to participate in dual-credit education while others were more selective, targeting only those

students who excelled in their high school classes and who demonstrated high levels of emotional maturity. Schools serving disadvantaged populations typically emphasized access and encouraged all students to participate in dual-credit education.

High school counselors and college advisors most commonly reported considering students' postsecondary plans and potential for credit transfer when advising students on dual-credit participation; high school counselors also frequently reported considering students' grade levels and high school graduation requirements. Nearly all interviewed counselors and advisors emphasized the importance of considering students' postsecondary plans, including planned majors or desired CTE-degree certificates and colleges in which they were interested. Interviewees used this information to better ensure that dual-credit courses would transfer to a particular degree plan whether students were seeking an associate degree or a four-year degree. At the same time, most high school counselors and college advisors noted that, while they recognized and emphasized the importance of credit transfer when counseling students, they generally guided students to confirm credit-transfer policies on their own. For example, students were encouraged to call the colleges they were considering to determine whether a specific dual-credit course would transfer or count toward a specific degree.

Counselors and advisors frequently indicated that students' grade levels informed the courses they encouraged students to take. In many cases, counselors and advisors used grades as a proxy for determining students' academic readiness for certain courses, their maturity or preparation for the rigors and expectations of particular dual-credit courses, or which dual-credit courses would meet high school credit requirements and have the highest potential for transfer to a postsecondary degree. Interviewees indicated that a critical element of their role was ensuring that students enrolled in dual-credit courses that were crosswalked to high school degree requirements or their selected high school endorsement areas.

High school students' academic and emotional readiness for dual-credit education, the latitude given to students in dual-credit course selection, and the limited time counselors had to fulfill their dual-credit advising responsibilities were reported as major challenges to adequate advising. Addressing students' academic and emotional readiness for dual-credit education was the most frequently shared challenge, especially among high school counselors. Counselors reported that it was difficult to effectively communicate to parents and students the importance of emotional maturity and the ability of students to responsibly conduct themselves in college classrooms, meet instructor expectations for academic performance and engagement, and responsibly manage interactions and communications with the instructor. In addition, counselors and advisors alike described challenges when students were given multiple

course offerings, particularly in partnerships that appeared to compel students to take as many dual-credit classes as available and were of interest, even if they were unlikely to transfer to a specific degree. Finally, some counselors and advisors indicated that they had too little time to complete their responsibilities and to provide the individualized student counseling they felt was needed.

High school counselors and college advisors most commonly suggested that greater clarity on credit-transfer policies, having dedicated and well-trained dual-credit staff, and early counseling could improve dual-credit student advising. Nearly half of interviewed high school counselors and about one quarter of interviewed college advisors expressed a desire for more guidance and clarity on credit-transfer policies and, specifically, on what courses transferred to a given college or university to better guide dual-credit students' course taking. Although interviewees reported turning primarily to college websites and the Texas Common Course Numbering System (TCCSN) for this information, they nevertheless wanted a more streamlined and uniform process for locating credit-transfer information.

Nearly one quarter of the high school counselors and nearly one third of the college advisors indicated that having well-trained, dedicated dual-credit advisors would improve student advising. For example, many respondents noted the significant time required to provide robust counseling services for dual-credit students given the amount of coordination and paperwork involved and the number of students they served. In addition, few high school counselors reported receiving any specific dual-credit advising training, and many counselors and college advisors suggested that training for dual-credit advisors at both the college and high school levels would be beneficial. Approximately one quarter of high school counselors and college advisors suggested a need to begin advising students earlier about dual-credit education and dual-credit pathways into college because they thought earlier counseling would better prepare students and families to make more strategic decisions about dual-credit education. Other suggestions included having college advisors play a more direct role in the advising process and establishing greater role clarity at college and high school levels to streamline dual-credit advising procedures and practices.

Academic Rigor Study Component

A high degree of similarity existed relative to the content and skills emphasized in English and mathematics dual-credit courses taught by HSDCs, dual-credit courses taught by DCs, and college-credit only courses taught by CCs. Across all course types, English 1301 syllabi required students to demonstrate specific skills, including how to think critically, communicate thoughts

and ideas clearly, and work in teams. Syllabi also had similar learning outcomes, including understanding the stages of the writing process (planning, drafting, revising, editing) and analyzing the purpose, audience, tone, style, and writing strategies of written works. Similarly, Math 1314/1414 syllabi collected from all three course types revealed that each focused on teaching students seven core concepts in Algebra: polynomials, rational functions, radical functions, exponential functions, logarithmic functions, systems of equations using matrices, and graphing.

Student grading was consistent across all course types in Mathematics 1314 and English 1301.

Letter grades given for similar assignments were aligned across course types. All student work was individually analyzed using a novice–expert continuum. This analysis of student work demonstrated grading consistency across course types; for example, student work graded as “A” or “B” was scored as “Strategic Thinking Level” across all course types.

HSDC, DC, and CC English 1301 and Mathematics 1314 focused on different instructional strategies in their courses. Instructors across English 1301 course types reported devoting differing amounts of instructional time to the various instructional tasks. For HSDC and DC English 1301 courses, instructors dedicated most of their time to whole-class discussions on writing and reading exercises. CC English 1301 instructors devoted the majority of course time to student engagement in computer-based writing assignments. Similarly, CC Mathematics 1314 instructors placed a greater emphasis on individual work and more often required comprehension of information from multiple sources than did DC and HSDC instructors.

HSDC, DC, and CC English 1301 instructors used common methods for assessing student performance. Across the three course types, English 1301 instructors reported using the following assessment methods: quizzes, cumulative final examinations, papers, presentations, and portfolios. Written essays were the most common work product instructors used to assess student performance (50% of overall grade), with cumulative final examinations as the second most common form of assessment (25% of overall grade).

HSDC, DC, and CC Mathematics 1314 instructors placed different emphasis on assessment strategies. Although Mathematic 1314 instructors across all course types used some similar forms of assessment (primarily final examinations, chapter tests/midterms, and homework) to grade students, HSDC and DC instructors reported using multiple choice and true/false questions more frequently compared with CC instructors. CC courses also placed greater emphasis on extended response questions and more often required comprehension of information from multiple sources compared with HSCD or DC courses.

Cost Study Component

Our estimate of the overall cost of providing dual-credit instruction was \$111 per SCH, or \$121.7 million statewide in 2016–17. On average, the cost to colleges of delivering dual-credit education far outweighed the additional state revenues they received by providing dual-credit instruction. When community colleges waived tuition, the average cost of dual credit for community colleges was \$82 per SCH (74% of the total cost). Community colleges received, on average, \$38 per SCH in state funding.

Tuition and fees arrangements varied widely across the state and had significant effects on the distribution of costs. When tuition was waived, colleges bore 74% of the cost of dual-credit instruction, compared with 14% for districts and 12% for students, on average. Conversely, when districts paid tuition for dual-credit students, colleges paid, on average, 38% of costs, school districts paid 51%, and students paid 12%. In some regions, tuition was waived for most classes and districts paid the costs of textbooks and placement test fees so that the upfront cost to students was effectively zero.

The strongest predictor of overall costs and of how costs were distributed across stakeholders was the type of instructor teaching the course. When courses were taught by college faculty, colleges bore more of the cost of dual credit. Full-time college faculty members were 2.5 times costlier, on average, than part-time college faculty on a per-SCH basis. When courses were taught by college faculty, school districts received cost savings resulting from reductions in the instructional burden on high school teachers. The cost of dual-credit education shifted from colleges to school districts when courses were taught by high school teachers. Assigning part-time college faculty to teach dual-credit course was the least expensive delivery mechanism; however, this approach may not have been the most cost-effective strategy because high school teachers or full-time college faculty may have been more effective instructors. Given the difference in cost burden according to who teaches the course, colleges should consider charging differential tuition rates for various teaching arrangements (a model used in some of the sites we sampled).

Our estimate of the cost of dual credit delivered through ECHSs was greater overall but were similar on a per-SCH basis. Although ECHSs generally had larger staffing levels per student, each ECHS student received a greater number of SCHs compared with students enrolled in dual credit in traditional, comprehensive high schools. As a result, the cost per SCH of administration and advising was only slightly higher in ECHSs. ECHSs typically shifted a substantial proportion

of costs from school districts to colleges because ECHSs were more likely to have dual-credit courses taught by college faculty rather than by high school teachers.

The short-term benefits related to reduced time to degree were 1.18 times the cost of dual credit. Long-term monetary benefits associated with a greater number of college graduates were almost five times our estimate of the amount of dual credit cost. Benefits from reduced time to degree were \$131 per SCH—18% greater than the cost of dual credit. The most conservative estimate of lifetime benefits from increased earning of two-year credentials was \$552 per SCH—almost 400% greater than the cost of dual-credit. The considerable value of benefits compared with costs suggests that investment in dual credit will result in large future payoffs to both individuals participating in dual credit and the public at large.

Racial Disparities Study Component

Differences in academic preparation, family income, and high school attendance patterns served as major contributors to racial and ethnic disparities in dual-credit participation. The descriptive analyses showed that the dual-credit participation rate of White students was 24%, while the corresponding rate for Blacks and Hispanics was 10.3% and 15.1%, respectively—a gap of 13.7 percentage points and 8.9 percentage points, respectively. However, when we accounted for differences in academic preparation and income between these groups, participation gaps narrowed significantly. For example, if Black students had the same eighth-grade standardized test scores in reading and mathematics as White students, then disparities in dual-credit participation would have decreased from 13.7 percentage points to 6.7 percentage points. For Hispanics, that gap would have decreased from 8.9 to 3.7 percentage points. However, we found no evidence suggesting that student access to dual-credit programs or AP/IB courses or to dual-credit tuition and fee waivers played a role in narrowing these disparities.

HB 505 Study Component

The percent of students participating in dual credit modestly increased after passage of HB 505 but was highest among ninth and 10th graders. The descriptive analysis showed that the percentage of students participating in dual-credit programs increased by 1.0% (from 7.5% to 8.5%) after the passage of HB 505. This one-point increase represented a growth of 14% in the dual-credit participation rate between 2012 and 2017. The rate of growth of dual-credit participation was highest among ninth and 10th graders. The percentage of high school freshmen participating in dual-credit programs increased from 1.0% before passage of HB 505

to 2.1% after the bill's passage, an increase of 110%. Similarly, the percentage of high school sophomores enrolling in dual-credit programs increased by 60%, from 2.7% before HB 505 to 4.3% after HB 505. The number of SCHs taken by dual-credit students also increased—from an average of 9.18 SCHs before the passage of HB 505 to 9.68 SCHs after passage. This increase aligned with an overall upward trend in the number of dual-credit SCHs delivered statewide from 2012 to 2017.

Standards of assessment may have declined for ninth and 10th graders taking dual credit, but not for participating 11th and 12th graders. Results demonstrate that scores among ninth- and 10th-grade students who took eighth-grade state standardized tests in reading and mathematics declined among dual-credit participants after HB 505, but dual-credit course pass rates for those groups increased. These patterns were not evident among 11th- and 12th-grade dual-credit participants.

Policy Recommendations

Determining how policy and practice should change based on our research is a nuanced and complicated process that requires input from stakeholders representing various perspectives and opinions. Until now, we have engaged stakeholders in this research on an ad hoc basis (e.g., meetings with THECB leadership, a webinar for dual-credit administrators and faculty). Publication of the first draft of this report and its posting for public comment moves us into a new phase of more formal stakeholder engagement. The feedback we receive during the public comment period will play a vital role in shaping how we will interpret findings and develop recommended policy and practice reforms. Thus, we will incorporate proposed changes to policy and practice into the final report following the close of the public feedback period.

Formal Feedback Process

This draft report was released for public comment at the THECB Board Meeting on July 26, 2018. The research team will host a webinar for interested stakeholders in early August and will present detailed findings at the Texas Association of Community Colleges (TACC) annual conference in Corpus Christi, Texas, on August 2, 2018. AIR welcomes comments and suggestions to help us contextualize the study's findings and develop practical policy recommendations that are grounded in the research presented in this report and elsewhere. The public comment period will be open through August 27, 2018.

The research team will host a second webinar in late September 2018 to summarize the comments and suggestions we receive during the public comment period. At this time, we also

will share a draft set of policy recommendations that are grounded in the research and informed by the feedback received through the public comment period. Interested stakeholders will have opportunities to submit feedback on the draft recommendations through October 9, 2018. The research team will then revise its recommendations based on feedback received and will present a final report at the October 25, 2018, THECB Board Meeting.

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Appendix A. Data and Methods

In this Appendix, we describe the data used in our quantitative analyses and provide additional details about specific methods used for particular analyses beyond what is reported in the main report. We also provide more detailed results than what is provided in the body of the report.

We begin this appendix by describing the data and then describe the different methods we use to conduct our analysis. We also go on to show results from analyses employing those methods.

Data

In this section, we describe the administrative data files that we used to conduct our quantitative analyses, and how we linked them at the individual level and over time to construct our analytic data files.

Administrative Data Files

We draw on administrative records collected by THECB and TEA for all quantitative analyses. Below, we describe employed THECB administrative data files:

1. **CBM001: Public Universities and Community, Technical and State Colleges Enrollment Report (2001–17).** This file captures college enrollment at all public HEIs in Texas, including public two- and four-year colleges. The file captures the number of SCH attempted each semester at all colleges in the state. Beginning in the 1999-2000 academic year, the file began distinguishing between DC and traditional college SCH. We use the data starting in academic year 2000-2001. The file also captures demographic information about all public college students in the state. We use this file to capture information about DC participation, college enrollment, and SCHs earned.

CBM001: Independent Colleges and Universities Enrollment Report (2003-2017). This file captures college enrollment at all private HEIs in Texas, including private non-profit two- and four-year colleges. First collected in the 2002-2003 academic year, the file captures the number of SCH attempted each semester at all colleges in the state. The file also captures demographic information about all private college students in the state. We use this file to capture information about DC participation, college enrollment, and SCHs earned from private colleges in Texas.

CBM009: Public Universities and Community, Technical and State Colleges Graduation Report (2001–17). This file captures information about all degrees and certificates conferred to students who were enrolled at any public HEIs in Texas, including two- and four-year colleges. We used this file to capture information about college completion.

CBM009: Independent Colleges and Universities Graduation Report (2003-2017). This file captures information about all degrees conferred to students who were enrolled at any private HEIs in Texas, including two- and four-year colleges. We used this file to capture information about college degree completion.

CBM00S: The Student Schedule Report (2012-2017). This file captures detailed transcript-level information for all students enrolled at any public two- or four-year HEI in Texas. We use this file to capture detailed information about course performance in DC and courses taught for college-credit only. We also use this file to capture detailed information about course mode and location. This file is also used to examine changes in DC courses after HB505. Since THECB only began collecting this information in 2012, we can only examine these data for 2012-2017 fiscal years.

CBM008: The Faculty Report (2012-2017). This file captures detailed information about faculty members teaching courses at public two- or four-year HEI in Texas. We use this file to capture information about the rank, highest degree earned, and employment status (full time, part-time or adjunct) for the faculty member of record for each course delivered at Texas public two- and four-year colleges from 2012–2017.

We also draw upon several administrative files from TEA. These include:

RQ 1 TEA Enrollment File (2001–17). This file captures enrollment information on all students of Texas public high schools. This includes demographic information and information about the high school that the student attended. We use this file to identify cohorts of junior year students to track into Texas public colleges and to identify the grade during which students took DC courses, if any.

TEA High School Graduation File (2001–17). This file captures information about all graduates of Texas public high schools. This includes the year in which the student graduated from high school, and the high school that conferred the degree, and basic demographic information. We use this file to examine high school graduation.

TEA Employment Records (2012-2017). This file captures information about all employees of Texas public schools. We use this file to identify college courses delivered in 2012-2017 whose faculty member of record was employed as a teacher in a Texas public school in those years.

TEA Eighth-Grade Test Score (1998-2016). This file captures eighth-grade test score information for all students of Texas public high schools. This includes the Texas Assessment of Academic Skill (1998-2002), the Texas Assessment of Knowledge and Skills (2003-2011), and the State of Texas Assessments of Academic Readiness (2012-2016). We center all student test scores around the average of each year so that the test scores can be compared across years. We use this to control for a student’s academic performance before high school.

National Student Clearinghouse

We also draw upon data collected by the National Student Clearinghouse (NSC). The NSC is a nonprofit organization that provides enrollment and degree verification services for postsecondary institutions. The overwhelming majority of postsecondary institutions nationally outsource these services to the NSC. According to NSC, they capture 99% of all college enrollment nationally. THECB contracts with NSC to obtain information on Texas public high school graduates who enroll in postsecondary institutions outside of Texas. THECB has access to NSC enrollment and degree records from 2009–17. We use this file to capture information about college enrollment and degree completion outside the state of Texas

Early College High School Data

Finally, we also draw upon a file that captures information on the date when a public high school was designated an ECHS by TEA. The file contains the codes for each ECHS, as well as an indicator for whether or not the ECHS was a standalone high school or embedded within a larger high school with the same TEA high school code. We use this file to develop indicators of enrollment in ECHSs.

Construction of Datasets

We link the files above across time and at the individual student level using SSNs to create two analytic files that we use in our quantitative analyses. Table AE.1 describes the key variables included in each file and the cohorts for which each variable is available.

First Analytic File

The first file, referred to as the “Student File,” tracks cohorts of 11th-grade students for 2001–16 students of Texas public high schools, capturing DC SCH starting in a student’s junior year of high school and college enrollment and degree completion up to ten years starting with a student’s junior year of high school. Since we only have enrollment data from 2001–17, we are

only able to create certain indicators for specific cohorts, as described below. The file captures detailed student information from the TEA enrollment file, including race / ethnicity, free lunch status, eighth-grade test scores, an indicator for whether or not the student participated in a Gifted and Talented program, an indicator for whether or not the student is considered at-risk of dropping out of high school, and an indicator for whether the student was identified as an English Language Learner.

This file also captures information about whether the student graduated from a HS that was either a standalone ECHS or had an ECHS embedded within it. The file captures outcomes including college enrollment (defined as enrolling full or part-time during the Fall or Spring semester two years after their 11th grade in high school), and completion (defined as having completed any postsecondary credential within ten years of their 11th grade in high school). The file also has indicators for enrolling in a two-vs. four-year college, and completing different postsecondary credentials. Finally, the file includes data on SCH-to-degree, SCH taken in college to degree, and time-to-degree for students enrolling in a HEI during the Spring or Fall Semester immediately following high school graduation and completing a four-year degree within ten years of 11th grade.

Second Analytic File

The second file, referred to as the “Course File,” which contains all of the scheduling information for dual-credit courses between 2012-2017 at all public and private HEIs in Texas. This file gives information on the grade that students received in a DC course, where and how the class was taught, and the characteristics of the teacher who taught that course. The data was matched to TEA data to capture student level information for students taking the DC courses including race / ethnicity, free/reduced priced lunch eligibility, eighth-grade test scores, an indicator for whether or not the student participated in a Gifted and Talented program, an indicator for whether or not the student is considered at-risk of dropping out of high school, and an indicator for whether the student was identified as an English Language Learner. We use the Course File to analyze how DC courses and the composition of DC courses have changed after the passage of HB505.

Table A.1. Key Variables by Student and Course File

DC Participation	Student Info	Context	Outcomes	Efficiency
Student File: Variables Generally Available 2000-2016 Unless Otherwise Noted				

DC Participation	Student Info	Context	Outcomes	Efficiency
DC Participation 11th-12th Gr	Race / Ethnicity	High School information	Enroll two-- or four-year	SCH-to-Degree
DC SCH 11th-12th Gr	Free/Reduced Price Lunch eligibility		Graduation two- or four-year	Net SCH-to- Degree
	8th Grade Test Scores		Credential two-or four-year High School Graduation	Time-to-Degree
Additional Variables Available in Course File: Variables Generally Available 2012–17 Unless Otherwise Noted				
Specific DC Courses	Race / Ethnicity Free/Reduced- Price Lunch eligibility	Location Mode Faculty Characteristics Academic vs. CTE	Grades and Pass Rates in DC courses	

Beginning in 2012, THECB began collecting detailed transcript-level information (CBM00S) about all college courses taken at any public HEI in the state. The file includes detailed course and section identifiers that allow us to link courses to information about their faculty member of record from the CBM008. For students taking courses in 2012-2017, we link the student level file above to additional course-level information about all college level courses taken by students of Texas public high schools. The file includes information about enrollment and course performance for particular DC courses, information on location (high school vs. college campus, mode of instruction (face-to-face, online, or hybrid), faculty characteristics (whether or not the instructor was employed as a public school teacher in Texas, highest degree earned, full- or part-time status, and adjunct status).

The table below describes each outcome examined in our analysis. It details how each outcome is defined, the high school graduate cohorts that is examined for each outcomes, the number of the students in those cohorts, and the conditioning that is necessary to analyze each outcome.

Table A.2. Definition of Outcomes

Outcome	Definition	Cohorts Examined	Number of Students	Conditioning
Graduated HS	Student graduated from HS on time	2001–16	3,411,286	
Enroll two-year	Student enrolled in a two-year college two years after junior year.	2001–15	3,223,430	
Enroll four-year	Student enrolled in a four-year college two years after junior year.	2001–15	3,223,430	
Enroll 2- or four-year	Student enrolled in a two- or four-year college two years after junior year	2001–15	3,223,430	
Graduated two-year	Student completed an Associate’s degree from a two-year college within 5 years of junior year	2001–13	2,754,765	
Certificate two-year	Student received a certificate from a two-year college within 5 years of junior year	2001–13	2,754,765	
Credential two-year	Student received a certificate or Associate’s degree from a two-year college within 5 years of junior year	2001–13	2,754,765	
Credential two-year or transfer	Student received a certificate or Associate’s degree from a two-year college or transferred to a four-year HEI within 5 years of junior year	2001–13	2,754,765	
Graduated four-year	Student completed a Bachelor’s degree from a four-year college within 10 years of junior year	2001–08	1,542,629	

Outcome	Definition	Cohorts Examined	Number of Students	Conditioning
Graduated 2- or four-year	Student completed an Associate's degree from a two-year college or a Bachelor's degree from a four-year college within 10 years of junior year	2001–08	1,542,629	
Credential 2- or four-year	Student received a certificate or Associate's degree from a two-year college or a Bachelor's degree from a four-year college within 10 years of junior year	2001–08	1,542,629	
Time to four-year Degree	Years between graduating high school and completing a Bachelor's degree from four-year college	2001–08	375,715	Conditioned on graduating from four-year school
Credit to four-year Degree	SCH earned at all institutions prior to obtaining the first Bachelor's degree	2001–08	384,658	Conditioned on graduating from four-year school
Credit in College to four-year Degree	SCH earned at all institutions after graduating from high school and prior to obtaining the first Bachelor's degree	2001–08	384,658	Conditioned on graduating from four-year school

Descriptive Statistics

First Analytic File

Table AE.3 presents descriptive statistics for various time periods and samples used for estimating the causal impact of dual-credit education programs. Statistics show that across all time periods and samples, certain student groups select into dual-credit programs. Columns 1 and 2 in Table AE.3 present descriptive statistics for 2001–2008; Columns 3 and 4 present descriptive statistics for 2001–13; Columns 5 and 6 present descriptive statistics for 2001–2015; and finally Columns 7 and 8 present descriptive statistics for 2001–2016.

This time period is presented because it is the time period used to examine the effect of dual-credit education on college completion from four-year institutions. We also present the statistics for all of the other outcomes in this time period. It gives the percentages of characteristics like race and academic information broken down into two groups: those who took DC and those who do not. We compare DC and non-DC students based on four outcome windows. Graduation from four-year institutions is defined for junior cohorts 2001–2008, graduation from two-year institutions is defined for junior cohorts 2001–2013, enrollment is defined for junior cohorts 2001–2015, and high school graduation is defined for junior cohorts 2001–2016.

Table A.3. Summary Statistics

Junior Cohorts								
Variables	2001–08		2001–13		2001–15		2001–16	
	No DC	DC	No DC	DC	No DC	DC	No DC	DC
White	47.9%	61.5%	42.7%	55.6%	41.2%	54.8%	40.5%	54.4%
African American	13.9%	6.5%	14.1%	7.1%	14.1%	7.1%	14.1%	7.2%
Asian	3.1%	3.6%	3.3%	3.7%	3.3%	3.7%	3.2%	3.6%
Hispanic	34.8%	28.2%	39.0%	32.5%	40.4%	33.1%	41.0%	33.5%
Other Race	0.3%	0.3%	0.8%	0.9%	0.9%	1.0%	1.0%	1.1%
Male	49.3%	41.5%	50.1%	41.9%	50.3%	42.0%	50.4%	42.0%
Free/Reduced Lunch	34.7%	23.5%	40.4%	28.4%	41.9%	28.9%	42.6%	29.4%

Junior Cohorts								
At Risk	46.9%	20.4%	48.8%	21.0%	49.8%	21.3%	50.2%	21.5%
ESL	1.4%	0.1%	1.9%	0.2%	2.2%	0.3%	2.4%	0.3%
Gifted	11.1%	28.3%	10.2%	25.1%	9.8%	24.3%	9.4%	23.6%
Grad HS	79.8%	94.3%	79.7%	94.5%	80.3%	94.6%	80.3%	94.5%
Enroll two-year	30.2%	31.0%	29.9%	31.8%	29.6%	31.8%		
Enroll four-year	18.8%	45.8%	17.6%	44.2%	17.2%	44.1%		
Enroll four- or two-year	47.4%	72.9%	46.0%	72.2%	45.4%	72.0%		
Grad two-year	2.2%	5.2%	2.4%	6.3%				
Certificate two-year	1.1%	1.5%	1.1%	2.0%				
Credential two-year	3.2%	6.4%	3.3%	7.9%				
Credential two-year or Transfer	16.3%	27.9%	14.4%	26.2%				
Grad four-year	19.9%	51.5%						
Grad two- or four-year	20.9%	53.6%						
Credential two- or four-year	21.8%	54.7%						

Causal Impact Study: Methods and Results

In this section, we describe the quasi-experimental methods used to estimate the causal impact of dual-credit education programs in Chapter 1. We also present detailed findings and regression output.

First, we describe our identification strategy using an instrumental variable approach and why using an instrumental variable strategy is necessary in this setting, along with the necessary identifying assumptions. Then we present our results in terms of the average effect of dual-credit education, the dosage effect of dual-credit education, and the heterogeneous effects of dual-credit education.

Identification Strategy

As documented in Phase I as well as Table AE.3, students who decide to enroll in dual-credit education are different across many dimensions from students who do not participate in dual-credit education, including race, gender, economic status, and academic preparation. While we can control for these observable characteristics, it is likely that these students differ on unobservable characteristics like motivation, future aspirations, work ethic, among others. Hence, even when only controlling for observable characteristics like race/ethnicity, income, and academic preparation, results estimating the effect of dual-credit on student outcomes will likely be biased because factors like motivation will also likely affect how well a student performs in high school and college.

To address this issue, we employ a quasi-experimental approach for causal inference called instrumental variables estimation (IV). In this approach, we predict dual-credit status using a variable (the instrument) that is uncorrelated with the educational outcomes we examine but is correlated with dual-credit status, and then use the fitted values from that regression to predict the outcome of interest. In doing so, this approach uses only the variation in DC that is driven by differences in the instrument to predict the outcome of interest. In our case, we use as our instrument the percentage of other students in a school taking dual-credit, a measure of implementation of DC within the school, to predict a student's dual-credit status when looking at average effect. Thus, our analysis uses only the variation in DC participation that is driven by differences in DC implementation over time and across schools to assess the impact of DC participation on student outcomes. Such variation is less problematic because students are unlikely to choose schools based on the extent to which have implemented DC programs. We show that our instrument is highly related to DC participation, or it has a "strong first stage." Our identifying assumption in these models is that, conditional on the student characteristics we include in the model and all time constant factors at the high school level, a student's future educational outcomes are uncorrelated with the percentage of other students in her junior cohort taking dual-credit in a high school.

Empirical Models

We run three models using our IV approach to assess the causal impact of DC education. First, we examine the average effect of DC education, then we look at the dosage effect of DC education, and finally, we examine the heterogeneous effects of DC education. To assess the average effect of DC education, we instrument for a student taking any DC education with the DC participation rate of other students in the same cohort at the same high school. For the

dosage effect, we instrument for a student taking DC SCH with the average DC SCH taken by other students in the same cohort at the same high school. Last, to assess the heterogeneous effects we run similar models to the average effects model, but we include an interaction term between DC education and various student characteristics. We instrument for DC taking with the DC participation rate of other students in the same cohort at the same high school, and we instrument for the interaction term by interacting the participation rate of other students with the same student characteristic as the endogenous variable.

The Average Effect of Enrolling in Dual-Credit Education

Our first stage for the average effects model is presented below:

$$DC_{it} = \alpha_1 \%DC_{th,-i} + \alpha_2 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

Where DC_{it} is an indicator for if student i in junior cohort t took DC in their junior or senior year. $\%DC_{th,-i}$ is the percentage of students at high school h in cohort t taking dual-credit excepting student i . X_i is a matrix of student characteristics. We also include high school fixed effects μ_h and junior year cohort fixed effects τ_t to control for time-invariant factors within a high school or junior cohort. Regression output for each first stage regression using each of the sets of junior cohorts employed for different analyses is displayed below suppressing the values except for $\%DC_{th,-i}$:

Table A.4. First Stage for Average Effects

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Took DC	Took DC	Took DC	Took DC	Took DC
DC participation in HS	3.732*** (0.0405)	3.657*** (0.0354)	3.630*** (0.0355)	3.593*** (0.0357)	6.219*** (0.109)
Junior Cohorts	2001–08	2001–13	2001–15	2001–15	2001–08
F-Statistic	594.1	817.6	846.3	843.9	241.9
Limited Sample					X
Observations	1,542,629	2,754,765	3,223,430	3,411,286	384,658
R-squared	0.247	0.243	0.241	0.240	0.342

Column 1 gives the first stage for examining four-year higher education outcomes: graduation four-year, graduation two- or four-year, and credential two- or four-year. Column 2 gives the first stage for examining two-year higher education outcomes: graduation two-year, certificate two-year, credential two-year, and credential two-year or transfer to four-year. Column 3 gives the first stage for enrolling in higher education: enroll two-year, enroll four-year, and enroll two- or four-year. Column 4 gives the first stage for if a student graduates from high school. Finally, Column 5 gives the first stage for the degree completion where the regression is conditional on a student graduating from a four-year institution.

Results from the first stage model clearly suggest that our instrument is relevant for estimating whether a student took dual-credit in high school. Typically, a strong first stage has an F-statistic greater than 30, which is clearly satisfied using this instrument. The first stage regressions have F-statistics greater than 500 for all specifications except for the last first stage displayed, which has a value of 242. The first stage also suggests a positive relationship between the instrument and taking dual-credit, which is what one would intuitively expect.

Our second stage for the average effects model is presented below:

$$Y_{ith} = \beta_1 \widehat{DC}_{it} + \beta_2 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

Where Y_{ith} is the educational outcomes for student i . The notation for the second stage is the same as the first stage. The regression output is displayed below:

Table A.5. Second Stage for Average Effects

Outcome	OLS Estimate of DC	IV estimate of DC	Observations	Junior Cohorts
Panel A: Short-Term Academic Outcomes				
HS Grad	0.0892*** (0.00142)	0.00641 (0.00698)	3,411,286	2001–16
Enroll two-year	0.0385*** (0.00273)	0.0164* (0.00857)	3,223,430	2001–15
Enroll four-year	0.199*** (0.00277)	0.00671 (0.0107)	3,223,430	2001–15
Enroll two- or four-year	0.217*** (0.00297)	0.0239*** (0.00925)	3,223,430	2001–15
Panel B: Long-Term Academic Outcomes				

Outcome	OLS Estimate of DC	IV estimate of DC	Observations	Junior Cohorts
Graduation two-year	0.0293*** (0.00107)	0.00896*** (0.00263)	2,754,765	2001–13
Certificate two-year	0.00723*** (0.000847)	0.0162*** (0.00238)	2,754,765	2001–13
Credential two-year	0.0345*** (0.00138)	0.0218*** (0.00354)	2,754,765	2001–13
Credential two-year or Transfer	0.0954*** (0.00229)	0.0355*** (0.00735)	2,754,765	2001–13
Graduation four-year	0.209*** (0.00318)	0.00345 (0.00802)	1,542,629	2001–08
Graduation two- or four-year	0.217*** (0.00316)	0.00790 (0.00812)	1,542,629	2001–08
Credential two- or four-year	0.218*** (0.00310)	0.0113 (0.00824)	1,542,629	2001–08
Panel C: Degree Completion				
Credit to Degree	2.255*** (0.285)	4.199*** (0.892)	384,658	2001–08
Credit in College to Degree	-7.017*** (0.315)	-7.774*** (0.921)	384,658	2001–08
Time to Degree	-0.318*** (0.00766)	-0.0803*** (0.0196)	375,715	2001–08
Panel D: Limited Sample of Panel A				
HS Grad	0.0855*** (0.00203)	0.0178 (0.0122)	1,542,629	2001–08
Enroll two-year	0.0231*** (0.00387)	0.0199** (0.00941)	1,542,629	2001–08
Enroll four-year	0.208*** (0.00340)	0.00248 (0.0101)	1,542,629	2001–08

Outcome	OLS Estimate of DC	IV estimate of DC	Observations	Junior Cohorts
Enroll two- or four-year	0.210*** (0.00401)	0.0168 (0.0114)	1,542,629	2001–08
Panel E: Limited Sample of Panel A				
HS Grad	0.0956*** (0.00163)	-0.0195 (0.0131)	1,680,767	2009–15
Enroll two-year	0.229*** (0.00299)	0.0199 (0.0138)	1,680,767	2009–15
Enroll four-year	0.199*** (0.00284)	-0.00304 (0.0120)	1,680,767	2009–15
Enroll two- or four-year	0.0518*** (0.00270)	0.0389*** (0.0142)	1,680,767	2009–15
Panel F: Graduation Windows				
Grad four-year within 4 yrs of HS	0.120*** (0.00242)	0.0260*** (0.00415)	1,989,304	2001–10
Grad four-year within 5 yrs of HS	0.176*** (0.00299)	0.0139** (0.00604)	1,989,304	2001–10
Grad four-year within 6 yrs of HS	0.193*** (0.00292)	0.00914 (0.00676)	1,989,304	2001–10

For our results, we present the OLS estimates of the effect of dual-credit education and compare them against our IV estimates to show the degree of bias resulting from self-selection into dual-credit courses. This is accentuated by the IV estimate being smaller in magnitude for most of the outcomes. For instance, the OLS estimate for graduating from a four-year college suggests that enrolling in dual-credit programs increases a student’s likelihood of graduating from a four-year college by 20.9 percentage points, but the IV estimates suggest dual-credit increases the likelihood by 1.3 percentage points

High School Graduation, College Enrollment and Completion

Panel A shows the impact of dual-credit education on short-term educational outcomes (e.g., high school graduation). Our IV estimates show that dual-credit education has a positive effect on enrolling in a two-year college as well as enrolling in any college within two years of their junior year in high school, but we find no significant effect on enrolling in four-year schools. We also find no statistically significant effect of DC participation on high school graduation.

In Panel B, we look at long-term education outcomes (e.g., college completion) and find that dual-credit education positively impacts a student's likelihood of earning an Associate's degree by 0.9 percentage points, earning a two-year certificate by 1.6 percentage points, and earning any credential from a two-year school or having an upward transfer by 3.6 percentage points. DC education had an insignificantly positive effect on four-year outcomes. Similar to what we saw in Panel A, the largest coefficients were concentrated in outcomes from two-year schools. This is not surprising since most of dual-credit is delivered by community colleges, so one might expect that the effects would be seen the strongest in two-year colleges.

Credits to Degree, Time to Degree

In Panel C, we examine the effect of dual-credit education on how many total credits (including those earned through dual-credit programs) a student took to complete a four-year degree, how many credits a student took in college to complete a four-year degree, and time to complete a four-year degree. We conditioned these regressions on a student graduating from a four-year college because a student's credit or time to a degree would be undefined otherwise. Results show that enrolling in dual-credit education increases the total amount of credits a student graduates with by approximately 4 credits, but it reduces the amount of credits taken in college by about 8 credits. We also find that dual-credit education decreases time to completion by about a month, or the first or second summer term, on average.

Timing of Taking DC for Short-term Outcomes

In Panel D and E, we split the sample in half to examine how the effect of DC changed over time for students. Panel D presents the effect of DC education on high school graduation and enrollment for junior cohorts 2001–08, and Panel E presents the effect of DC on the same outcomes for junior cohorts 2009–15. In Panel D, we find that there is a significant effect of DC increasing the likelihood of enrolling in a two-year college on-time by 2.0 percentage points. We find the same point estimate in Panel E, but it is insignificant, suggesting that there is less precision in the estimate. We find insignificantly positive effects from DC education for the rest

of the outcomes in Panel D. In Panel E, there's only a significant effect from DC education increasing the likelihood of enrolling on-time in any higher education institution by 3.9 percentage points. The results in Panel D and E suggest that there is the effect on enrolling in two-year institution is the same over time, but the variance has been increasing over time, resulting in a less precise estimate in Panel E. There's also has been an increase in the effect of DC education on enrolling in any college over time.

On-Time Graduation

Panel F measures the effect of dual-credit education on graduating from college on time. As we reported earlier in this appendix, we follow students for 10 years after the start of their junior year to observe if they completed a four-year degree. For this analysis, we follow juniors for 6 years, 7 year, and 8 years starting with their junior year to observe the same outcome. Results from Panel F show that the effect of dual-credit education on the completion of a four-year degree becomes smaller as the window of time becomes wider. Specifically, we find that dual-credit education increases the likelihood of graduating from a four-year college within 6 years significantly by 2.6 percentage points; within 7 years significantly by 1.4 percentage points; within 8 years insignificantly by 0.9 percentage points, and within 10 years significantly by 0.3 percentage points. These results suggest dual-credit education gives an advantage that becomes smaller over time as non-dual-credit students are able to catch up. These results are consistent with our findings that DC education increases time to completion.

The Effect of the Dosage of Dual-Credit Education

Our previous section provides the average effect of enrolling in any amount of dual-credit education. However, the effect of enrolling in dual-credit education may vary depending on the amount of dual-credit SCH students take. To answer this question, we estimate the effect of a single DC SCH on student outcomes using OLS. We instrument for the amount of dual-credit SCH that a student takes with the average amount of DC SCH in a given high school taken by the other students.

Empirical Models

The first stage equation for the dosage model is below:

$$DC_SCH_{it} = \alpha_1 \overline{DC_SCH}_{ht,-1} + \alpha_2 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

Where DC_SCH_{it} is the amount of dual-credit SCH taken by student i in cohort t . $\overline{DC_SCH_{ht,-i}}$ gives the average dual-credit SCH taken at high school h taken by students other than student i in cohort t . X_i is a matrix of observable student characteristics. We also include high school fixed effects μ_h and junior year cohort fixed effects τ_t to control for time-invariant factors within a high school or junior cohort. Regression output is displayed below suppressing the values except for $\overline{DC_SCH_{ht,-i}}$

Table A.6. First-Stage for Dosage Effects

	(1)	(2)	(3)	(4)	(5)
VARIABLES	DC SCH	DC SCH	DC SCH	DC SCH	DC SCH
Average DC SCH at HS	3.896*** (0.0435)	3.726*** (0.0356)	3.621*** (0.0370)	3.503*** (0.0381)	7.618*** (0.159)
Junior Cohorts	2001–08	2001–13	2001–15	2001–15	2001–08
F-Statistic	498.7	709.8	654.52	583.4	162.5
Limited Sample					X
Observations	1,542,629	2,754,765	3,223,430	3,411,286	384,658
R-squared	0.264	0.278	0.277	0.274	0.421

Column 1 gives the first stage for examining four-year higher education outcomes: graduation four-year, graduation 2- or four-year, and credential four-year. The Column 2 gives the first stage for examining two-year higher education outcomes: graduation two-year, certificate two-year, credential two-year, and credential two-year or transfer to four-year. Column 3 gives the first stage for enrolling in higher education: enroll two-year, enroll four-year, enroll 2- or four-year. Column 4 gives the first stage for if a student graduates from high school. Finally, Column 5 gives the first stage for the degree completion where the regression is conditional on a student graduating from a four-year institution.

Results from the first stage model clearly suggests that our instrument is relevant for estimating how much a student took dual-credit in high school. Typically, a strong first stage has a F-statistic greater than 30, which is clearly satisfied using this instrument. The first stage regressions have F-statistics greater than 500 for all specifications except for the last first stage displayed, which has a value of 170. The first stage also suggests a positive relationship between the instrument and taking dual-credit SCH, which is what one would intuitively expect. The first stage for the dosage effects looks similar to the first stage for the average effects.

Our second stage equation for the dosage model is presented below:

$$Y_{ith} = \beta_1 DC_SCH_{it} + \beta_2 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

Where Y_{ith} is the educational outcomes for student i . The notation for the second stage is the same as the first stage. The regression output is displayed below:

Table A.7. Second Stage for Dosage Effects

	OLS	IV	
Outcomes	DC Credit SCH	DC Credit SCH	Observations
Panel A: Short-Term Academic Outcomes			
HS Grad	0.00518*** (0.000113)	0.000246 (0.000442)	3,411,286
Enroll two-year	0.000596*** (0.000179)	-0.000770 (0.000580)	3,223,430
Enroll four-year	0.0137*** (0.000239)	0.00169*** (0.000630)	3,223,430
Enroll two- or four-year	0.0129*** (0.000262)	0.000931 (0.000575)	3,223,430
Panel B: Long-Term Academic Outcomes			
Graduation two-year	0.00301*** (0.000181)	0.00120*** (0.000217)	2,754,765
Certificate two-year	0.000922*** (0.000110)	0.00154*** (0.000209)	2,754,765
Credential two-year	0.00373*** (0.000206)	0.00243*** (0.000303)	2,754,765
Credential two-year or Transfer	0.00675*** (0.000206)	0.00273*** (0.000491)	2,754,765
Graduation four-year	0.0162*** (0.000315)	0.00119** (0.000575)	1,542,629
Graduation two- or four-year	0.0169*** (0.000311)	0.00172*** (0.000595)	1,542,629
Credential two- or four-year	0.0172*** (0.000298)	0.00212*** (0.000611)	1,542,629
Panel C: Degree Completion			
Credit to Degree	0.330*** (0.0210)	0.335*** (0.0515)	384,658
Credit in College to Degree	-0.670*** (0.0210)	-0.665*** (0.0515)	384,658
Time to Degree	-0.0268*** (0.000527)	-0.00740*** (0.00119)	375,715

	OLS	IV	
Panel D: Limited Sample of Panel A			
HS Grad	0.00598*** (0.000150)	0.000762 (0.000864)	1,542,629
Enroll two-year	6.41e-05 (0.000310)	0.000346 (0.000818)	1,542,629
Enroll four-year	0.0160*** (0.000302)	0.00191** (0.000745)	1,542,629
Enroll two- or four-year	0.0145*** (0.000374)	0.00185* (0.000964)	1,542,629
Panel E: Limited Sample of Panel A			
HS Grad	0.00524*** (0.000130)	-0.00117 (0.000761)	1,680,767
Enroll two-year	0.00100*** (0.000174)	0.000983 (0.000879)	1,680,767
Enroll four-year	0.0131*** (0.000250)	-0.000429 (0.000768)	1,680,767
Enroll two- or four-year	0.0128*** (0.000275)	-0.000197 (0.000773)	1,680,767
Panel F: Graduation Windows			
Grad four-year within 4 yrs of HS	0.0103*** (0.000230)	0.00237*** (0.000288)	1,989,304
Grad four-year within 5 yrs of HS	0.0137*** (0.000283)	0.00154*** (0.000408)	1,989,304
Grad four-year within 6 yrs of HS	0.0146*** (0.000286)	0.00115** (0.000458)	1,989,304

Main Results

Similar to the average effects regression output, we present the OLS estimates with the IV estimates for comparison to show the same pattern of positive selection seen in the average effects sections. Similar to the average effects of dual-credit education on student outcomes, we find that for most student outcomes the OLS estimates are larger in magnitude than the IV estimates. To examine the effect of one dual-credit course, which is typically 3 SCH, one would multiply the coefficients given by 3.

In Panel A, we find that for taking additional DC SCH, a student's chances of enrolling in a four-year university is increased by 0.17 percentage points and statistically significant. However, we find an insignificant effect on enrolling in a two-year, which differs from what we found in the average effects. However, the results in Panel B are consistent with the previous results for average effects. In particular, all of the two-year outcomes are significantly positively affected

by dual-credit. The average DC student takes about 10 DC SCH, and if one multiplies these effects by 10, then the estimates given by the dosage effect are about the same as the average effect estimates. For example, the average effect of DC education increases the likelihood of getting a certificate from a two-year school by 1.62 percentage points. We find that the effect for taking a 1 DC SCH increases the likelihood of earning a certificate from a two-year school by 0.15 percentage points. The average DC student takes about 10 DC SCH, so our dosage estimates suggest that the average student would increase the likelihood of earning a certificate from a two-year school by 1.5 percentage points.

The dosage effects differ from the average effects though when examining four-year outcomes. Our dosage model suggests that the four-year outcomes are significantly and positively affected by one additional DC SCH, but DC education has no significant effect on four-year outcomes in our average effect model.

We find similar effects in Panel C for both dosage and average effects. Our results suggest that DC SCH works as a substitute for credits in college. One additional DC SCH increases the total SCH taken to a four-year degree by 0.335, and it decreases the total credits taken in college to a four-year degree by 0.665. This suggests that DC courses and regular college courses are substitutes but not perfectly.

In Panel D and E, we split the sample in half to see how the effect of DC education changes over time for the dosage effects. In Panel D, we find a significant effect for enrolling in a four-year and any college with an additional DC SCH increasing the likelihood by 0.2 percentage points for both outcomes. We find no significant effect for any outcome examined in Panel E, suggesting that there is a decrease the effect of the dosage in DC SCH.

Panel F gives the effect of DC dosage on graduating from college by different time windows. For this analysis, we follow juniors for 6 years, 7 years, and 8 years starting with their junior year to observe graduation from four-year colleges. Results from Panel F show that the effect of dual-credit education on the completion of a four-year degree becomes smaller as the window of time becomes wider. These results are consistent in terms of sign and magnitude to what we saw in Panel F for the average effects. Specifically, we find that an additional DC SCH increases the likelihood of graduating from a four-year college within 6 years significantly by 0.24 percentage points; within 7 years significantly by 0.15 percentage points; within 8 years insignificantly by 0.12 percentage points, and within 10 years significantly by 0.12 percentage points. To find the average effect, one would multiply these effects by 10, which is the average amount of DC SCH taken by students participating in DC, then these estimates are similar in

magnitude to what we found in the average effects model. These results suggest dual-credit education gives an advantage that becomes smaller over time as non-dual-credit students are able to catch up. These results are consistent with our findings that DC education increases time to completion.

Heterogeneous Effect of Dual-Credit Education

For this section of the appendix, we examine the average effect of dual-credit education by student sub group. To conduct this analysis, we employed an empirical model similar to the one that examined the average effect of dual-credit education on student outcomes. The only difference is that in this particular model, we included a term that interacts enrolling in dual-credit education with certain student characteristics. Formally, we estimate these equations:

With the first stage equations:

For $j = 1$ to $j = J$:

$$DC_{it} = \alpha_0 \%DC_{th,-i} + \alpha_j \%DC_{th,-i} * x_{ij} + \phi_0 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

$$DC_{it} * x_{ij} = \theta_0 \%DC_{th,-i} + \theta_j \%DC_{th,-i} * x_{ij} + \phi_j X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

IV equations:

For $j = 1$ to $j = J$:

$$Y_{ith} = \beta_0 \widehat{DC}_{it} + \beta_j \widehat{DC}_{it} * x_{ij} + \gamma_1 X_i + \gamma_2 Z_{th} + \mu_h + \tau_t + \varepsilon_{ith}$$

Our notation is the same as the previous equations. X_i is a $K \times 1$ vector of observable student-level characteristics such that $K \geq J$. x_{ij} is characteristic j of student i in cohort t . The J characteristics that we interact for are sex, race, normalized eighth-grade test scores and if they are designated by TEA as economically disadvantaged.

β_0 gives the effect of dual-credit for students that lack characteristic j , and β_j gives the differential effect of dual-credit education for student with characteristic j . $\beta_0 + \beta_j$ gives the total effect of dual-credit for students with characteristic j . This differs for normalized eighth-grade test scores since the mean test score gives a value of 0. In this instance, β_0 represents the effect of dual-credit for a student with average eighth-grade test scores, and $\beta_0 + \beta_j$ gives the total effect of dual-credit for students with a test score of one standard deviation higher than the average. We display the total effect for those that do and do not receive free/reduced

priced lunch in Table AE.8. We display the effect of DC for students with average eighth-grade test scores and those with a one standard deviation increase in test scores in Table AE.9, and we display the effect of DC by race in Table AE.10.

Disadvantaged Students

We define disadvantaged students as students who are eligible for free or reduced priced lunch. The results show that the impact of dual credit participation for students who are eligible for free or reduced price lunch is less than that for students who are ineligible, and is negative in most cases. For example, our estimates suggest that dual credit participation reduces college enrollment by 3.2 percentage points and reduces college completion by 6.7 percentage points for free and reduced price lunch eligible students. However, we also find that participation in dual-credit increases the likelihood of earning a certificate by 2.1 percentage points for these students.

Table A.8. Heterogeneous Effects of DC for Students Eligible and Ineligible for Free or Reduced-Price Lunch

Variables	(1) Ineligible for Free or Reduced-Price Lunch	(2) Eligible for Free or Reduced- Price Lunch
Panel A: Short-Term Academic Outcomes		
HS graduation	0.0243*** (0.00624)	-0.0257** (0.0106)
Enrollment two-year	0.0205*** (0.00794)	0.00874 (0.0139)
Enrollment four-year	0.0375*** (0.00971)	-0.0497*** (0.0144)
Enrollment two- or four-year	0.0545*** (0.00977)	-0.0320** (0.0141)
Panel B: Long-Term Academic Outcomes		
Graduate two-year	0.0128*** (0.00267)	0.00169 (0.00400)
Certificate two-year	0.0136*** (0.00194)	0.0210*** (0.00372)
Credential two-year	0.0230*** (0.00333)	0.0196*** (0.00552)
Credential two-year or Transfer	0.0458*** (0.00627)	0.0161 (0.0122)
Graduate four-year	0.0369***	-0.0736***

	(0.00845)	(0.0152)
Graduate two- or four-year	0.0416***	-0.0697***
	(0.00851)	(0.0154)
Credential two- or four-year	0.0452***	-0.0669***
	(0.00864)	(0.0156)
Panel C: Degree Completion		
Credit to Degree	4.711***	2.313
	(0.911)	(1.430)
Credit in College to Degree	-7.442***	-9.774***
	(0.933)	(1.482)
Time to Degree	-0.0746***	-0.111***
	(0.0196)	(0.0361)
Panel D: Limited Sample of Panel A		
HS Grad	0.0388***	-0.0307
	(0.0105)	(0.0197)
Enroll two-year	0.0289***	-0.000962
	(0.00928)	(0.0164)
Enroll four-year	0.0247**	-0.0487**
	(0.00974)	(0.0176)
Enroll two- or four-year	0.0451***	-0.0483***
	(0.0113)	(0.0208)
Panel E: Other Limited Sample of Panel A		
HS Grad	0.0142	-0.0588***
	(0.0108)	(0.0170)
Enroll two-year	0.0622***	0.0116
	(0.0132)	(0.0182)
Enroll four-year	0.0503***	-0.0654***
	(0.0116)	(0.0159)
Enroll two- or four-year	0.0952***	-0.0682***
	(0.0138)	(0.0191)
Panel F: Graduation Windows		
Grad four-year within 4 yrs of HS	0.0513***	-0.0255***
	(0.00440)	(0.00666)
Grad four-year within 5 yrs of HS	0.0446***	-0.0484***
	(0.00656)	(0.0103)
Grad four-year within 6 yrs of HS	0.0416***	-0.0570***
	(0.00727)	(0.0115)

High Achieving Students

We find nearly universally significantly positive effects from dual-credit education on high-achieving students. Students who score one standard deviation above the average on standardized tests in eighth-grade reading and mathematics have significantly positive effects for nearly all outcomes. It is also notable for these high achieving students that dual-credit seems to more positively affect outcomes related four-year graduation and enrollment instead of two-year graduation and enrollment. This differs from the average effect from dual-credit education which showed larger effects for outcomes related to two-year colleges like enrolling in two-year college and graduating from two-year colleges. Students that have high tests scores on reading, one standard deviation above the mean score, are 5.8 percentage points more likely to enroll in any college and 5.3 percentage points to graduate from any college. The results are similar for mathematics test scores with DC positively affecting enrollment and completion by 4.2 and 3.3 percentage points, respectively.

Participating in dual-credit education decreased college completion overall by 3.2 percentage points for students with average eighth grade standardized test scores in reading, while the effect for students with average mathematics scores was negative but statistically insignificant. At the same time, dual credit participation also increased high school completion by 1.8 percentage points for students with average eighth grade reading scores, and increased completion or upward transfer from two year colleges by about 3.9 percentage points for students with average standardized test scores in both reading and mathematics. Students with average reading and math eighth-grade test scores also graduate more quickly after taking DC education than their peers with higher test scores. A possible explanation for this finding is that higher ability students might be less likely to be able to transfer dual credit courses to their particular major. On average, students with average reading scores graduate 0.17 years (62 days) more quickly following DC education compared with students with reading scores one standard deviation above the mean, who graduate 0.04 years (15 days) more quickly following DC education.

Table A.9. Heterogeneous Effects of DC for Students by Eighth-Grade Test Scores

Variables	(1) Avg. Reading Score	(2) +1 Std. Dev. Above Avg. Reading Score	(3) Avg. Mathematics Score	(4) +1 Std. Dev. Above Avg. Mathematics Score
Panel A: Short-Term Academic Outcomes				
HS graduation	0.0183*	-0.00858	0.0121	0.000544

Enrollment two-year	(0.0107) 0.0123 (0.0139)	(0.00552) 0.0212** (0.00888)	(0.00975) 0.0197 (0.0122)	(0.00546) 0.0130* (0.00783)
Enrollment four-year	-0.0220 (0.0153)	0.0410*** (0.00907)	-0.0182 (0.0141)	0.0319*** (0.00873)
Enrollment two- or four-year	-0.00474 (0.0137)	0.0582*** (0.00847)	0.00578 (0.0126)	0.0423*** (0.00837)
Panel B: Long-Term Academic Outcomes				
Graduate two-year	-0.00585 (0.00398)	0.0260*** (0.00286)	-0.00242 (0.00366)	0.0201*** (0.00273)
Certificate two-year	0.0283*** (0.00366)	0.00226 (0.00167)	0.0244*** (0.00332)	0.00818*** (0.00167)
Credential two-year	0.0184*** (0.00540)	0.0257*** (0.00328)	0.0186*** (0.00496)	0.0250*** (0.00318)
Credential two-year or Transfer	0.0393*** (0.0112)	0.0311*** (0.00661)	0.0385*** (0.0103)	0.0326*** (0.00653)
Graduate four-year	-0.0411*** (0.0134)	0.0469*** (0.00786)	-0.0227* (0.0120)	0.0255*** (0.00731)
Graduate two- or four-year	-0.0406*** (0.0136)	0.0553*** (0.00791)	-0.0214* (0.0122)	0.0326*** (0.00743)
Credential two- or four-year	-0.0315** (0.0137)	0.0530*** (0.00796)	-0.0141 (0.0122)	0.0327*** (0.00750)
Panel C: Degree Completion				
Credit to Degree	-1.615 (1.488)	6.999*** (0.889)	-1.864 (1.293)	6.002*** (0.861)
Credit in College to Degree	-11.67*** (1.477)	-6.101*** (0.934)	-11.65*** (1.307)	-6.796*** (0.896)
Time to Degree	-0.170*** (0.0318)	-0.0406** (0.0192)	-0.164*** (0.0278)	-0.0583*** (0.0189)
Panel D: Limited Sample of Panel A				
HS Grad	-0.00418 (0.0213)	0.0392*** (0.00807)	0.00240 (0.0186)	0.0308*** (0.00844)
Enrollment two-year	0.00679 (0.0170)	0.0326*** (0.0107)	0.0135 (0.0148)	0.0252*** (0.00901)
Enrollment four-year	-0.0230 (0.0169)	0.0274*** (0.00929)	-0.0107 (0.0151)	0.0136*** (0.00857)
Enrollment two- or four-year	-0.0194 (0.0198)	0.0522*** (0.0106)	-0.00104 (0.0173)	0.0319 (0.0101)
Panel E: Other Limited Sample of Panel A				
HS Grad	-0.0263 (0.0173)	-0.00722 (0.00813)	-0.0276* (0.0164)	-0.00756 (0.00935)
Enrollment two-year	0.0400** (0.0184)	0.0369*** (0.0128)	0.0478*** (0.0175)	0.0258** (0.0123)
Enrollment four-year	-0.0433*** (0.0159)	0.0688*** (0.0118)	-0.0389** (0.0151)	0.0493*** (0.0115)
Enrollment two- or four-year	-0.0205	0.0920***	-0.00782	0.0603***

	(0.0185)	(0.0112)	(0.0174)	(0.0117)
Panel F: Graduation Windows				
Grad four-year within 4 yrs of HS	-0.0120* (0.00643)	0.0680*** (0.00530)	-0.00577 (0.00582)	0.0561*** (0.00488)
Grad four-year within 5 yrs of HS	-0.0255*** (0.00947)	0.0574*** (0.00690)	-0.0158* (0.00857)	0.0421*** (0.00628)
Grad four-year within 6 yrs of HS	-0.0290*** (0.0104)	0.0513*** (0.00720)	-0.0190** (0.00945)	0.0358*** (0.00664)

Race/Ethnicity

We also run the models by race/ethnicity and find significant positive effects for Hispanic and Black students on enrolling in a two-year college or in enrolling in any college. DC education increases the likelihood of on-time enrollment at a two-year college for Black and Hispanic students by 4.7 and 4.3 percentage points, respectively. There is also a positive effect on long-term outcomes for Hispanic students for two-year colleges. After taking dual-credit education, Hispanic students are more likely to graduate or earn a certificate from a two-year college as well as more likely to have a transfer to a four-year college. However, we do not find this effect for Black students, who appear to be less likely to graduate from a two-year school following dual-credit education. Dual-credit education does not appear to significantly affect four-year college outcomes for Black and Hispanic students. Hispanic students that take DC education also appear to graduate from four-year colleges at a faster rate, reducing their time to degree by 0.17 years or 62 days.

Table A.10. Heterogenous Effects of DC for Students by Race

Variables	(1) Asian	(2) Black	(3) Hispanic	(4) Other Race	(5) White
Panel A: Short-Term Academic Outcomes					
HS graduation	-0.0349 (0.0228)	0.0243 (0.0170)	0.00203 (0.00943)	0.0180 (0.0170)	0.00898 (0.00672)
Enrollment two-year	-0.0828*** (0.0293)	0.0474** (0.0200)	0.0433*** (0.0122)	0.000829 (0.0213)	-0.00184 (0.00795)
Enrollment four-year	-0.0791*** (0.0298)	-0.00309 (0.0208)	-0.00352 (0.0140)	0.0138 (0.0228)	0.0199* (0.0101)
Enrollment two- or four-year	-0.135*** (0.0360)	0.0466** (0.0194)	0.0451*** (0.0127)	0.0278 (0.0228)	0.0139 (0.00994)
Panel B: Long-Term Academic Outcomes					
Graduate two-year	0.0164 (0.0164)	-0.0185*** (0.00477)	0.0157*** (0.00385)	0.00961 (0.0105)	0.00785*** (0.00254)
Certificate two-year	0.00473* (0.00238)	-0.000627 (0.00238)	0.0270*** (0.00238)	0.0113** (0.00238)	0.0118*** (0.00238)

	(0.00280)	(0.00362)	(0.00392)	(0.00555)	(0.00195)
Credential two-year	0.0203	-0.0195***	0.0388***	0.0205*	0.0161***
	(0.0165)	(0.00594)	(0.00556)	(0.0120)	(0.00310)
Credential two-year or Transfer	-0.0731***	-0.00501	0.0543***	0.0145***	0.0339***
	(0.0272)	(0.0122)	(0.0111)	(0.0197)	(0.00611)
Graduate four-year	-0.110***	-0.0124	-0.0119	-0.0311	0.0187**
	(0.0306)	(0.0229)	(0.0127)	(0.0397)	(0.00884)
Graduate two- or four-year	-0.108***	-0.0175	-0.00564	-0.00257	0.0232***
	(0.0304)	(0.0225)	(0.0127)	(0.0414)	(0.00888)
Credential two- or four-year	-0.107***	-0.0233	-0.000737	-0.0114	0.0270***
	(0.0300)	(0.0227)	(0.0128)	(0.0420)	(0.00900)

Panel C: Degree Completion

Credit to Degree	7.821***	2.884	3.854***	-5.074	4.393***
	(2.790)	(2.574)	(1.457)	(6.658)	(0.939)
Credit in College to Degree	-5.563**	-7.325***	-8.590***	-16.31**	-7.729***
	(2.574)	(2.566)	(1.442)	(6.648)	(0.969)
Time to Degree	0.0779	-0.0537	-0.165***	-0.336**	-0.0626***
	(0.0601)	(0.0492)	(0.0316)	(0.157)	(0.0198)

Panel D: Limited Sample of Panel A

HS Grad	0.0124	-0.00987	-0.00878	0.0438	0.0360***
	(0.0182)	(0.0380)	(0.0168)	(0.0371)	(0.00999)
Enrollment two-year	-0.0964***	-0.00122	0.0311***	0.0534	0.0205**
	(0.0271)	(0.0258)	(0.0155)	(0.0427)	(0.00923)
Enrollment four-year	-0.0924***	-0.000180	0.00202	-0.00589	0.00695
	(0.0288)	(0.0275)	(0.0155)	(0.0369)	(0.00983)
Enrollment two- or four-year	-0.162***	-0.00757	0.0279	0.0494	0.0205*
	(0.0357)	(0.0264)	(0.0178)	(0.0467)	(0.0114)

Panel E: Other Limited Sample of Panel A

HS Grad	-0.0326	0.0139	-0.0314**	-0.0209	-0.0112
	(0.0360)	(0.0204)	(0.0155)	(0.0215)	(0.0119)
Enrollment two-year	-0.0664	0.0583**	0.0385**	0.0186	0.0444***
	(0.0423)	(0.0272)	(0.0172)	(0.0259)	(0.0133)
Enrollment four-year	-0.0633*	-0.0430*	-0.00988	-0.0246	0.0239*
	(0.0372)	(0.0235)	(0.0146)	(0.0252)	(0.0122)
Enrollment two- or four-year	-0.136***	0.00387	0.0116	-0.00476	0.0508***
	(0.0504)	(0.0278)	(0.0169)	(0.0263)	(0.0137)

Panel F: Graduation Windows

Grad four-year within 4 yrs of HS	-0.00212	0.00205	-0.00355	0.0326	0.0485***
	(0.0186)	(0.00966)	(0.00613)	(0.0216)	(0.00474)
Grad four-year within 5 yrs of HS	-0.0617**	0.00189	-0.00786	0.0280	0.0319***

	(0.0257)	(0.0144)	(0.00879)	(0.0271)	(0.00702)
Grad four-year within 6 yrs of HS	-0.0906***	0.00151	-0.00601	0.00782	0.0236***
	(0.0276)	(0.0162)	(0.00976)	(0.0286)	(0.00764)

Taken together, these results suggest that dual-credit can be an effective policy for some students. It benefits high-achieving students almost universally, and it can help disadvantaged students in some respects.

Effect of Dual Credit Participation for Free and Reduced Price Lunch Eligibility by Academic Preparation

To further probe the impact of dual-credit participation for free and reduced price lunch eligible students, we examined how the intersection of a student's eligibility for free/reduced price lunch and eighth grade test scores affects student outcomes. We alter the heterogeneous effects model by including more interaction terms in our regression. Formally, we estimate these equations

With the first stage equations:

$$DC_{it} = \alpha_0 \% DC_{th,-i} + \alpha_1 \% DC_{th,-i} * Free_i + \alpha_2 \% DC_{th,-i} * Score_i + \alpha_3 \% DC_{th,-i} * Free_i * Score_i + \phi_0 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

$$DC_{it} * Free_i = \theta_0 \% DC_{th,-i} + \theta_1 \% DC_{th,-i} * Free_i + \theta_2 \% DC_{th,-i} * Score_i + \theta_3 \% DC_{th,-i} * Free_i * Score_i + \phi_0 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

$$DC_{it} * Score_i = \psi_0 \% DC_{th,-i} + \psi_1 \% DC_{th,-i} * Free_i + \psi_2 \% DC_{th,-i} * Score_i + \psi_3 \% DC_{th,-i} * Free_i * Score_i + \phi_0 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

$$DC_{it} * Free_i * Score_i = \delta_0 \% DC_{th,-i} + \delta_1 \% DC_{th,-i} * Free_i + \delta_2 \% DC_{th,-i} * Score_i + \delta_3 \% DC_{th,-i} * Free_i * Score_i + \phi_0 X_i + \mu_h + \tau_t + \varepsilon_{ith}$$

IV equations:

$$Y_{ith} = \beta_0 \widehat{DC}_{it} + \beta_1 DC_{it} * \widehat{Free}_i + \beta_2 DC_{it} * \widehat{Score}_i + \beta_3 DC_{it} * \widehat{Free}_i * \widehat{Score}_i + \gamma_1 X_i + \gamma_2 Z_{th} + \mu_h + \tau_t + \varepsilon_{ith}$$

Our notation is the same as the previous equation with two exceptions. $Free_i$ is an indicator for if student i is eligible for free/reduced price lunch, and $Score_i$ is the normalized eighth-grade math or reading score for student i . The interpretation of these coefficients is that β_0 represents the effect of dual-credit for a student that is not eligible for free/reduced price lunch with average eighth-grade test scores, $\beta_0 + \beta_1$ represents the effect of dual-credit for a student that is eligible for free/reduced price lunch with average eighth-grade test scores, $\beta_0 + \beta_2$ represents the effect of dual-credit for a student that is not eligible for free/reduced price lunch with a test score of one standard deviation higher than the average, and finally, $\beta_0 + \beta_1 + \beta_2 + \beta_4$ represents the effect of dual-credit for a student that is eligible for free/reduced price lunch with a test score of one standard deviation higher than the average. We display these combined coefficients in Table A.11.

Table A.11. Heterogeneous Effects of DC for Students by Eligibility for Free/Reduced Price Lunch and Eighth-Grade Reading Test Scores

	Ineligible for Free/Reduced Price Lunch		Eligible for Free/Reduced Price Lunch	
	Avg Eighth Grade Reading Score	+1 Std. Dev. Above Avg Reading Score	Avg Eighth Grade Reading Score	+1 Std. Dev. Above Avg Reading Score
Panel A: Short-Term Academic Outcomes				
HS graduation	0.0665*** (0.0100)	-0.00959* (0.00531)	-0.0264* (0.0137)	-0.0182* (0.00967)
Enrollment two-year	0.0444*** (0.0125)	0.00780 (0.00948)	-0.00927 (0.0195)	0.0445*** (0.0120)
Enrollment four-year	0.0324** (0.0137)	0.0415*** (0.00923)	-0.0738*** (0.0184)	0.0258* (0.0144)
Enrollment two- or four-year	0.0766*** (0.0149)	0.0432*** (0.0104)	-0.0719*** (0.0186)	0.0725*** (0.0109)
Panel B: Long-Term Academic Outcomes				
Credential two-year or Transfer	0.0696*** (0.0105)	0.0283*** (0.00749)	0.0119 (0.0151)	0.0295*** (0.00991)
Graduate four-year	0.0134 (0.0134)	0.0517*** (0.00874)	-0.106*** (0.0196)	0.0194 (0.0159)
Credential two- or four-year	0.0324** (0.0137)	0.0541*** (0.00884)	-0.104*** (0.0204)	0.0338** (0.0161)

Table A.12. Heterogeneous Effects of DC for Students by Eligibility for Free/Reduced Price Lunch and Eighth-Grade Math Test Scores

Variables	Ineligible for Free/Reduced Price Lunch		Eligible for Free/Reduced Price Lunch	
	Avg Eighth Grade Math Score	+1 Std. Dev. Above Avg Math Score	Avg Eighth Grade Math Score	+1 Std. Dev. Above Avg Math Score
Panel A: Short-Term Academic Outcomes				
HS graduation	0.0469*** (0.00884)	0.0108** (0.00547)	-0.0283** (0.0132)	-0.0176** (0.00827)
Enrollment two-year	0.0458*** (0.0107)	0.0121 (0.00836)	-0.00583 (0.0184)	0.0249** (0.0103)
Enrollment four-year	0.0275** (0.0127)	0.0428*** (0.00917)	-0.0694*** (0.0176)	0.0125 (0.0119)
Enrollment two- or four-year	0.0721*** (0.0130)	0.0500*** (0.0101)	-0.0642*** (0.0176)	0.0401*** (0.00972)
Panel B: Long-Term Academic Outcomes				
Credential two-year or Transfer	0.0650*** (0.00927)	0.0363*** (0.00670)	0.00969 (0.0146)	0.0295*** (0.00971)
Graduate four-year	0.0279** (0.0121)	0.0395*** (0.00839)	-0.0954*** (0.0186)	-0.00694 (0.0136)
Credential two- or four-year	0.0435*** (0.0123)	0.0454*** (0.00857)	-0.0942*** (0.0193)	0.00675 (0.0136)

Tables A.11 and A.12 show how the intersection of eligibility for free/reduced price lunch and test scores changes the effect of DC education. These results seem consistent with our previous results showing that students that are eligible for free/reduced price lunch have negative outcomes after taking DC education, and student with high eighth grade test scores see more gains from DC education. Interestingly though, students that are both eligible for free/reduced price lunch and have high test scores have significant and positive outcomes. In particular, students that are eligible for free/reduced price lunch and have average eighth grade reading scores are less likely to enroll in college by 7.2 percentage points after taking DC education, but the students with similar eligibility but with a one standard deviation above the mean in their eighth grade reading scores are 7.3 percentage points more likely to enroll in college after DC education. We find a similar pattern with college completion. Free/reduced price lunch eligible students with average reading scores are 10 percentage points less likely to complete college,

but students with similar eligibility but with a one standard deviation above the mean in their eighth grade reading scores are 3.4 percentage points more likely to complete college. We find a similar pattern based on eighth grade math scores.

When looking at students that are eligible for free/reduced price lunch, many of the outcomes are negatively affected by DC education as evidenced in Table A.8. However, once include interaction terms to account for differences in eighth grade test scores, we find that many of these significantly negative effects become no different from zero or in some cases positive for high-achieving students. This is not surprising given that Table A.9 demonstrates that students with higher eighth grade test scores have more positive effects from taking DC courses. Tables A.11 and A.12 demonstrate that when we simultaneously control for these two characteristics, we find that the positive effects from having a high eighth grade test score outweighs the negative effects from being eligible for free/reduced price lunch.

Racial Disparities Study: Methods and Results

In this section, we explain the methods and results for the analysis describing racial disparities in the DC participation. We used a regression analysis to determine how different factors contributed to racial disparities in DC participation. For the baseline, we regressed a student's race on DC participation and then added covariates one at a time to assess how specific covariates changed the participation rate.

Specifically, we ran this regression:

$$DC_{it} = \beta X_i + \tau_t + \varepsilon_{it}$$

DC_{it} is an indicator variable for if student i in cohort t participates in DC education, X_i is a vector of indicator variables for a student's race. τ_t is cohort fixed effects, which controls for any cohort specific confounders. Finally, ε_{it} is the error term. White is the omitted category to prevent collinearity.

Then we predict the values for participating in DC, which we call \widehat{DC}_{it} . This is done by taking the coefficients given by race (β) and rerunning the regression to retrieve the predicted values. We then plot those predicted values in the bar graph.

To see the effect of including different covariates, we add covariates one by one and then use them all together. Specifically we run this regression:

$$DC_{it} = \beta_1 X_i + \beta_2 Z_i + \tau_t + \varepsilon_{it}$$

The terms are the same as the previous regression except that Z_i represents a vector of covariates including DC and AP/IB availability at a student's high school, an indicator for if a student is eligible for free or reduced-priced lunch, and eighth-grade mathematics and reading test scores. We take the mean value for White students for each covariate in the regression and replace the values for that covariate for non-White students with the average white student score. We then predict \widehat{DC}_{it} with the new values. This will give the average DC participation rate by race if non-White students had the same average value as White students. For example, we run this regression and use eighth-grade mathematics and reading test scores as a covariate, and we retrieve the effect of race and test scores on DC participation. We then give all non-White students the same average test scores as White students and then predict DC participation.

We also run a similar regression using high school fixed effects. Including this fixed effect will help control for time-invariant factors that are specific to certain high schools. Specifically, we run this regression.

$$DC_{it} = \beta_1 X_i + \mu_h + \tau_t + \varepsilon_{it}$$

The notation is the same as the previous regressions. μ_h is high school fixed effect. We predict \widehat{DC}_{it} after running this regression as well. Finally, we estimate an equation with all of the covariates and fixed effects included. Specifically, we run this regression:

$$DC_{it} = \beta_1 X_i + \beta_2 Z_i + \mu_h + \tau_t + \varepsilon_{it}$$

The notation is the same as the previous regressions. We then predict \widehat{DC}_{it} and plot the values for \widehat{DC}_{it} by race for each of the regressions presented. This analysis gives a view into what observable characteristics account for different DC participation by race. For instance, we find that the gap between white and non-white student decrease after controlling for different eighth-grade test scores, which suggests that different underlying academic preparation is partially to blame for different DC participation rates by race. We present the regression results below:

Table A.13. Determinants for Racial Disparities of DC Participation by Race

VARIABLES	(1) Took DC	(2) Took DC	(3) Took DC	(4) Took DC	(5) Took DC	(6) Took DC	(7) Took DC
Asian	-0.0400*** (0.00961)	0.00596 (0.00689)	-0.0329*** (0.0101)	-0.0653*** (0.0103)	-0.0411*** (0.00973)	-0.0379*** (0.00960)	0.000295 (0.00735)
Black	-0.140*** (0.00540)	-0.112*** (0.00362)	-0.115*** (0.00482)	-0.0692*** (0.00473)	-0.139*** (0.00539)	-0.140*** (0.00541)	-0.0310*** (0.00252)
Hispanic	-0.0904*** (0.00618)	-0.107*** (0.00288)	-0.0574*** (0.00549)	-0.0388*** (0.00613)	-0.0905*** (0.00611)	-0.0896*** (0.00617)	-0.0442*** (0.00207)
Other Race	-0.0563*** (0.00373)	-0.0443*** (0.00278)	-0.0471*** (0.00360)	-0.0453*** (0.00356)	-0.0561*** (0.00371)	-0.0557*** (0.00373)	-0.0250*** (0.00248)
HS Offers AP/IB						-0.0472*** (0.00988)	-0.0334*** (0.00626)
HS Offers DC					0.127*** (0.00536)		0.0902*** (0.00682)
Reading Z- Score				0.0474*** (0.00108)			0.0459*** (0.00106)
Math Z-Score				0.0756*** (0.00220)			0.0786*** (0.00174)
Free/Reduce d Lunch			-0.0667*** (0.00346)				-0.0597*** (0.00174)
Junior Cohort Fixed Effects	X	X	X	X	X	X	X
High School Fixed Effects		X					X
Observations	3,422,004	3,422,004	3,422,004	3,422,004	3,422,004	3,422,004	3,422,004
R-squared	0.031	0.117	0.036	0.089	0.035	0.031	0.182

Appendix B: Advising Data Collection Instruments

THECB/AIR STUDY OF DUAL-CREDIT PROGRAM ADVISING PRE-INTERVIEW FORM

BACKGROUND

1. What is your official title? _____
2. What role do you play in advising dual-credit students? *(Select all that apply)*
 - a. I directly advise dual-credit students
 - b. I oversee high school guidance counselors or college advisors who offer dual-credit counseling
 - c. I offer professional development and support to high school guidance counselors and college advisors who advise dual-credit students
 - d. other: Please specify _____
3. What types of students do you advise?: *(Select all that apply)*
 high school students who are enrolled in dual-credit courses at a traditional high school
 high school students who are enrolled in dual-credit courses at an Early College High School
 high school students who are not enrolled in dual-credit courses
 college students
 other: Please specify _____
4. Approximately how many students, including dual-credit students, overall do you currently advise? _____
5. Approximately what proportion of these students are enrolled in dual-credit courses? _____
6. For which program(s) does your institution offer dual-credit advising? *(Select all that apply)*
 - a. academic programs
 - b. career and technical education programs
7. For which grades do you provide dual-credit advising? *(Select all that apply)*
 9th grade
 10th grade
 11th grade
 12th grade

8. On average, how frequently do you hold an advising session with each dual-credit students you advise? *(Select one response)*
- weekly
 - biweekly
 - monthly
 - quarterly
 - once during the semester
 - never
9. On average, how many minutes do you spend advising dual-credit students in a single advising session? _____
10. Who initiates the majority of dual-credit advising sessions? *(Select one response)*
- high school students
 - dual-credit advisors or counselors
11. What is the typical format of an advising session for dual-credit students? *(Select one response)*
- one-on-one sessions
 - group meetings with all advisees
 - other: Please specify _____
12. Who leads these advising sessions? *(Select all that apply)*
- high school guidance counselor
 - college advisor
 - high school teacher
 - college faculty
 - other: Please specify _____
13. How does your institution deliver advising to dual-credit students? *(Select all that apply)*
- face-to-face
 - online
 - a hybrid model that combines face-to-face and online modalities
 - other: Please specify _____
14. What percent of your time do you dedicate to the following activities to provide guidance to dual-credit students? *[Please make sure that percentages add to 100]*
- helping students select dual-credit courses
 - helping students develop time management and study skills
 - helping students navigate class schedules and registration waitlists
 - setting up student email accounts
 - providing emotional supports to students
 - helping students apply for financial aid
 - coordinating activities and meetings with dual-credit partners
 - other: Please specify: _____

AIR/THECB STUDY OF DUAL-CREDIT ADVISING IN TEXAS INTERVIEW PROTOCOL

Introductory Script [5 minutes]

[Note to Interviewer: Say additional words/phrases in brackets if group interview format used.]

Thank you for sharing your time with me today. My name is [insert name]. I am a researcher with Gibson Consulting, an education research firm. We have partnered with the American Institutes for Research (AIR), an independent non-profit research institute to conduct a study jointly funded by Educate Texas/ Communities Foundation of Texas, Greater Texas Foundation, Houston Endowment and the Meadows Foundation. This study is being conducted for the Texas Higher Education Coordinating Board (THECB) to learn about dual-credit advising policies and practices, and will not be used for compliance or accountability purposes. This study is an opportunity for stakeholders to share information about dual-credit advising policies and practices to identify best practices in dual-credit education.

[Today, we have assembled several of you from [insert institution name] in hopes that you could provide some insights on this topic.]

Your participation in this [group] interview is voluntary. You may choose not to participate in the interview, decline to answer any question, or stop the interview at any time without penalty. Our study team will keep what you say confidential. We will not be linking your responses with names or any other identifying information. This data will only be used by the research team at AIR/Gibson Consulting for the study, and we will not share your individual responses with THECB, the TEA, your [institution/school], the U.S. Department of Education, or anyone else outside of the research team. [However, because this is a group interview, please do not say anything you would not want others to know and talk about, as we cannot promise you that others on the line will keep what is discussed anonymous and confidential. We do ask that everyone on the line please respect the confidentiality of other participants and not repeat what we discuss outside of this interview.]

FOR COLLEGE ADVISORS ONLY

Your institution may have established a dual-credit partnership with more than one high school. If this is the case and your advising role and/or activities differ across the partnering high schools with which you work, we ask that you respond with [NAME OF PARTNERSHIP] in mind.

I estimate our conversation today will last about 60 minutes. [Because this is a group interview conducted by phone, speak clearly and one at a time so that we can hear everyone.] I will be jotting some notes so I can remember what you say. In addition, I would like to audio-record today's discussion to check the accuracy of my notes. The notes and the audio-recordings will

be destroyed as soon as the research team has completed data collection and analysis. Is this alright with you? Do you have any questions for me at this point before we begin?

I. Context [Approximate length of time: 5 minutes]

1. GQ: For my notes, please state your name, title, and role in overseeing or providing dual-credit advising services.
2. SQ: For your particular partnership with [INSTITUTION/HIGH SCHOOL], can you describe what dual-credit advising looks like from the start to the end of the academic year, and anything that may occur after a student completes a dual-credit course?
3. SQ: To what extent are [high school guidance counselors/college advisors] involved in decisions around dual-credit advising? What roles do they take on?

For high school counselors who report providing guidance to dual-credit students and non-dual-credit students, ask:

4. SQ: How does advising for dual-credit students at [HIGH SCHOOL] differ from guidance you provide to students enrolled in A.P. or I.B. courses? And to students who are not enrolled in any courses that may lead to college credit?

For college advisors who report providing guidance to dual-credit and college-credit only students, ask:

5. SQ: How does advising for dual-credit students at [HIGH SCHOOL] differ from guidance you provide to students enrolled in college-credit only courses?

Listen for:

- Degree versus non-degree seeking
- Undeclared field of study or major

II. Selection into Dual-Credit Education: [Approximate length of time: 20 minutes]

The next set of questions are about how you help select students for dual-credit education.

6. SQ: For your partnership with [INSTITUTION / HIGH SCHOOL], are you involved in the process of selecting students for dual-credit education?
 - *For college advisors, Is this also the case for your partnership with your [institution's] other high school partners?*

SKIP LOGIC: If yes to Question 6, answer the following questions:

7. SQ: Are certain types of students encouraged to consider enrolling in dual-credit education? If yes, what are the characteristics of those students?

For high school counselors who report providing guidance to dual-credit students and nondual-credit students, ask:

8. SQ: How are the students who are encouraged to enroll in dual-credit education different from the students who are encouraged to take A.P. or I.B. courses?
9. SQ: From your perspective are there any factors at [HIGH SCHOOL] that challenge or limit certain groups of students' access to or ability to enroll in dual-credit courses through this partnership?
10. SQ: Are there certain types of students at [HIGH SCHOOL] that you think should be advised against taking dual-credit courses? Why?

II. Course Selection [Approximate length of time: 20 minutes]

I want to continue by asking a number of questions about how you help students choose dual-credit courses.

11. SQ: For your partnership with [INSTITUTION / HIGH SCHOOL], are you involved in the process of helping students choose which dual-credit courses to take?
 - *For college advisors,* Is this also the case for your partnership with your [institution's] other high school partners?

SKIP LOGIC: If yes to Question 11, answer the following questions:

12. SQ: In your partnership with [INSTITUTION/HIGH SCHOOL], what specific factors do you consider when counseling students into academic dual-credit courses?
[Ask ALL following probes]
 - How does a students' anticipated major, field of study, or career trajectory play a role in the advising students receive about which dual-credit courses to take?
 - How does the student's grade level play a role in the advising students receive about which dual-credit courses to take?
 - Finally, how do non-cognitive characteristics, such as motivation or emotional maturity, play in advising dual-credit students around course-taking?

13. SQ: In addition to these factors, do you also consider credit-transfer policies and review these policies with students?
- If yes, what is your source of information for credit-transfer policies? Are these policies clear to you?
 - If no, can you explain why credit transfer is not a factor you consider in counseling students on which dual-credit courses to choose?
 - To what extent do you feel more guidance to counselors/advisors on credit transfer policies for this partnership with [INSTITUTION/HIGH SCHOOL] would be helpful?
14. SQ: How much latitude do students have over selecting which and how many dual-credit courses to take at [HIGH SCHOOL]?
15. SQ: Are students at [HIGH SCHOOL] required to design a program of study to help them map the courses they need to take to earn their desired degree? What does that program of study look like?

Ask only those who reported in the intake form that their institution delivers both academic and CTE dual-credit advising.

16. SQ: To what extent is advising students into CTE dual-credit courses different from advising into academic dual-credit courses? How?

II. Information Sharing [Approximate length of time: 10 minutes]

Now I'd like to learn from you about the sorts of information and materials dual-credit students receive, and is shared between your institution and your dual-credit partner.

17. SQ: What kinds of information/materials do you provide to dual-credit students at [HIGH SCHOOL]?

Listen for:

- Tuition and fees
- Financial aid
- Course catalogs and schedules
- Course sequences
- Course registration processes and procedures
- New student orientation resources (getting school ID care/use of library)
- Online sources of information/tools
- Key contacts at the college
- Credit transfer
- Career planning
- Student support services
- Choosing an academic field of study or a major

18. SQ: How is this information shared with dual-credit students at [HIGH SCHOOL]? [PROBE: electronically, face-to-face, mail]

Ask the next question of college advisors only:

19. SQ: How, if at all, does the information/materials for new college students differ from the information/materials provided to dual-credit students at [HIGH SCHOOL]?
20. SQ: What information do you share with your dual-credit education partner? What information do they share with you?

IV. Coordination with Dual-Credit Partners [Approximate length of time: 15 minutes]

Next, I'd like to hear from you about how you work with your counterparts to deliver dual-credit advising.

21. SQ: How would you describe the level of coordination you have with your [institution/high school] partner with respect to your advising responsibilities? Please elaborate on how you coordinate activities related to dual-credit advising.
22. SQ: Do you think greater coordination of information and/or activities between your [school/institution] and your dual-credit partner(s) is needed? What would you change if you could?
23. SQ: Have you received any training specific to advising dual-credit students with respect to this dual-credit partner specifically? If yes, please describe.

V. Challenges of Advising Dual-Credit Students [Approximate length of time: 5 minutes]

Thank you for your answers thus far. Now, I would like to get your thoughts about the challenges of delivering dual-credit advising.

24. GQ: What are the main challenges you encounter in advising dual-credit students generally? Are there any challenges specific to the partnership you have with [institution/HIGH SCHOOL]?

Listen for:

- Challenges related to pressure to counsel students into dual-credit education and specific dual-credit courses that are relevant to their future degree or career plans
- Challenges related to working with/getting information from/coordinating with your dual-credit partner
- Challenges related to lack of or inconsistent guidance on how to advise students

- Challenges related to how to determine which students are most likely to be successful in dual-credit education
- Challenges related with working with high school students and their parents

25. GQ: Thinking generally, what supports or improvements to the advising process would help you overcome these challenges? What might help students become more strategic when choosing courses so they count towards their major or field of study?

VII. Wrap up

26. GQ: Is there anything else you'd like to share about your experiences as a dual-credit advisor, or the advising process that we haven't already discussed either generally or with the dual-credit partner we asked specific questions about today?

Thank you for your time and participation in this interview!

Appendix C. Advising Interview Sample

Our final interview sample included counselors and advisors from 50 high schools and 52 IHEs. To recruit our interviewees, we sent an email to the individual at each of our sampled institutions that oversaw and managed DC education at high schools. We asked them to identify individual(s) at their college and their high school partner we were targeting for our study who were involved in student advising and could answer questions about how students were counseled into DC programs and courses. Through this process we completed a total of 102 interviews, including 52 with college advisors (45 2-year college advisors and seven 4-year college advisors) and with 50 high school counselors. Table C1. provides the number and type of respondents that were interviewed by the key features of how their institutions and high schools and how they delivered DC education.

Table C1. IHE and High School Characteristics of the Interview Sample

Characteristics of DC Delivery in Sampled Institutions		Interviews	Interviews by Interviewee Type	
Overall		102	2-year college advisors	45
			4-year college advisors	7
			High school guidance counselors	50
Urbanity	Rural high schools ≥ 75%	45	2-year college advisors	18
			4-year college advisors	5
			High school guidance counselors	22
	Urban high schools < 75%	57	2-year college advisors	27
			4-year college advisors	2
			High school guidance counselors	28
ECHS	ECHS partner	25	2-year college advisors	8
			4-year college advisors	3
			High school guidance counselors	14
	No ECHS partner	77	2-year college advisors	37
			4-year college advisors	4
			High school guidance counselors	36
CTE	CTE ≥ 75%	4	2-year college advisors	2
			4-year college advisors	0

Characteristics of DC Delivery in Sampled Institutions		Interviews	Interviews by Interviewee Type	
			High school guidance counselors	2
	CTE < 75%	98	2-year college advisors	43
			4-year college advisors	7
			High school guidance counselors	48
Online	Online/hybrid ≥ 50%	13	2-year college advisors	7
			4-year college advisors	1
			High school guidance counselors	5
	Online/hybrid < 50%	89	2-year college advisors	38
			4-year college advisors	6
			High school guidance counselors	45
Student demographics	Minority	43	2-year college advisors	17
			4-year college advisors	4
			High school guidance counselors	22
	Non-minority	59	2-year college advisors	28
			4-year college advisors	3
			High school guidance counselors	28
	Low-income	100	2-year college advisors	45
			4-year college advisors	6
			High school guidance counselors	49
	Not low-income	2	2-year college advisors	0
			4-year college advisors	1
			High school guidance counselors	1
Region	West Texas/Panhandle	18	2-year college advisors	7
			4-year college advisors	0
			High school guidance counselors	11
	Central Texas	10	2-year college advisors	7
			4-year college advisors	0

Characteristics of DC Delivery in Sampled Institutions		Interviews	Interviews by Interviewee Type	
	Houston/Gulf Coast	26	High school guidance counselors	3
			2-year college advisors	12
			4-year college advisors	2
	Dallas/North Texas	16	High school guidance counselors	12
			2-year college advisors	7
			4-year college advisors	0
	South Texas	11	High school guidance counselors	9
			2-year college advisors	4
			4-year college advisors	3
	East Texas	21	High school guidance counselors	4
			2-year college advisors	8
			4-year college advisors	2
			High school guidance counselors	11

Appendix D. Advising Interview Codebook

AIR/THECB STUDY OF DUAL-CREDIT INTERVIEW CODEBOOK

Construct/ "Code name"	Subconstruct/ "Subcode name"	Protocol Question #	Pre-interview Form Question #	Code definition
Construct 1: Advisor/ counselor roles and responsibilities/ "Roles and responsibilities"		1, 3, 6, 11	1, 2, 14	Role of counselor/advisor in advising DC students, including whether counselor/advisor is involved in selecting students for DC and/or involved in helping students choose which courses to take; also includes time spent on specific topics/activities (e.g., DC course selection, time management and study skills, class schedules/registration, email account set up, emotional support, financial aid, etc.); Also include responses that speak to the role of their HS/IHE counselor/advisor counterpart at their partner school/institution
Construct 2: How DC advising differs from other student advising/ "Distinctness of DC advising"		4, 5, 16, 19		How/to what extent advising for DC students differs from advising for AP, IB, and CTE students, or students not enrolled in college-going courses; as well as from advising for students enrolled in college-credit only courses

Construct/ "Code name"	Subconstruct/ "Subcode name"	Protocol Question #	Pre-interview Form Question #	Code definition
Construct 3: Targeted students "Targeted students"		2, 6, 7, 8, 9, 10	3, 4, 5, 7, 8, 9, 10	The types and grade levels of students advised, how students are selected for DC, and how many students are enrolled in DC courses; as well as what types of students/what are the characteristics of students encouraged to enroll in DC; includes perceptions about whether students are being incorrectly advised into/out of DC
Construct 4: Format of advising sessions/ "Advising format"		2, 3, 17, 18	8, 9, 10, 11, 12	How frequently and for how long counselors/ advisors meet with students; how advising sessions are initiated; the format of the advising sessions, including who leads them, mode of delivery
Construct 5: Relationship/coordination between HS partner and college partner/ "DC partner coordination"	Construct 5.1: Information shared between partners/ "Information shared"	13, 20, 21, 22		Level of coordination between high school and college partner, including how high school guidance counselors work with college advisors. Also includes perceptions of whether greater coordination is needed. For 5.1: Information shared between the partners (including information about credit transfer policies); also includes perceptions of whether more/different

Construct/ "Code name"	Subconstruct/ "Subcode name"	Protocol Question #	Pre-interview Form Question #	Code definition
				types of information shared is needed or if support is sufficient.
Construct 6: Kinds of information shared with students/ "Information shared with students"	Construct 6.1: How information is shared with students/ "How information shared"	17, 18		The kinds of information dual-credit advisors or counselors share with students and parents/families (e.g., tuition and fees, financial aid, course catalog, key college contacts, online resources, etc.); also includes whether the types of information for DC students differs than for college-credit only students. Include responses about recruitment materials/ advertising produced to let students and families/ parents know about DC opportunities. For 6.1: How information is shared (e.g., electronically, face-to-face, etc.); also includes whether how information is shared with DC students differs than for college-credit only students
Construct 7: Factors counselors/advisors consider in advising DC students "Advising considerations"		2, 3, 12, 13		The procedures and guidelines (including any testing requirements/ established criteria) the institution has established for advising practices and student eligibility for DC,

Construct/ "Code name"	Subconstruct/ "Subcode name"	Protocol Question #	Pre-interview Form Question #	Code definition
				including how counselors and advisors consider a student's academic and behavioral preparation, credit-transfer options, as well as a student's major and/or career plans
Construct 8: Students' roles in selecting DC courses/ "Student autonomy"		14, 15		Includes extent to which students have autonomy in selecting DC students and any requirements for DC students (e.g., completing a program of study to map out course taking).
Construct 9: Supports/trainings provided to counselors/advisors/ "Advisor training"		4, 23		Includes training on DC education generally, on how to advise students, and trainings specific to working with the partner of interest for this study.
Construct 10: Challenges/ "Challenges"		24		The challenges that dual-credit advisors or counselors encounter when advising dual-credit students, including challenges related to working with DC partner.
Construct 11: Supports needed to improve DC advising/ "Supports needed"		25		Any supports that advisors or counselors indicate are needed to improve the advising process for DC students. Include also any recommendations to improve the advising process, even if specific supports aren't mentioned. Also include

Construct/ "Code name"	Subconstruct/ "Subcode name"	Protocol Question #	Pre-interview Form Question #	Code definition
				any responses that indicate what might help students be more strategic in making DC course choices.
Construct 12: Notable practices				Double code any responses that indicate a certain practice/activity was reported as particularly beneficial or effective related to the advising process
Construct 12: General Comments		26		Include responses here that don't neatly fit into other constructs/codes and we can figure out which other constructs additional comments may apply to.

Appendix E: Detailed Cost Descriptions for Traditional Dual-Credit Models by Community College

Costs for Community College A and Its District Partners

Community College A is a large community college serving an urban area with nine traditional school districts and five charter school districts. Over the past decade, the college has actively pursued certification of high school teachers to serve as dual-credit instructors. As a result, the majority of DC courses in Community College A are taught by high school teachers, rather than community college faculty. We conducted interviews with staff members at multiple departments at the community college central office and at the three largest school districts in the area, which collectively account for approximately three-quarters of all DC in the region.

Table E.1 shows the annual cost per SCH across these three districts for DC coursework that takes place in traditional, non-ECHS. The per-SCH cost in Districts 1A, 2A, and 3A is \$127, \$111, and \$121, respectively. In general, the cost burden of dual credit is approximately equal between the community college and school districts, with students bearing a very minor proportion of costs. Differences in the cost across districts (and the cost burdens) result from differences in school district central office staffing patterns and differences in who teaches dual-credit courses in each district, on average (full-time community college faculty, part-time community college faculty, or high school teachers). In the sub-sections below, we describe the resources that generate these costs. We discuss, in turn, the community college central office costs, school district administrative and advising costs, instructional costs for the community college and school districts, and finally, all other costs associated with dual credit. We then briefly describe how costs are distributed across stakeholders.

Community College Administrative and Advising Costs for Community College A

Community College A has a robust central office staffing model for DC. The College employs a Dean of DC, who has two full-time administrative assistants. Two faculty members provide additional assistance, allocating 20% of their time through a course-release of one course per semester. Among other DC-related tasks, these individuals provide professional development to new dual-credit teachers. An office of student services includes an associate director of DC and two administrative assistants (one full-time and one part-time). A total of five administrative and registrar specialists are assigned to dual credit. The counseling department includes a counseling coordinator for DC, a districtwide academic counselor for DC, and an academic counselor specialist for DC, each of whom allocate all of their time to DC-related

efforts. These individuals are compensated based on the full-time community college faculty salary schedule.

The Office of Instructional Deans includes a total of twelve subject-specific instructional deans across various community college campuses. These individuals approve courses for a subset of subject areas. The time allocation for these 12 deans is approximately commensurate with proportion of DC and non-DC courses at the college. Community College A also employs faculty coordinators, who are responsible for recommending course approval to subject-specific instructional deans (for both DC and traditional community college courses), evaluating other community college faculty and high school teachers assigned to DC, and evaluating labs and other physical DC classroom space on high school campuses. Faculty coordinators are full time community college faculty and typically oversee 15 courses or 45 SCH. These individuals receive one course release for each 45 credits they are assigned. The last personnel category in the Office of Instructional Deans is faculty liaisons who serve as liaisons for each high school principal and community college staff. There is a total of five faculty liaisons, each of whom are full time community college faculty who receive one course release for their services.

Other community college personnel at the central office include staff members from the Library Services, Center for Students with Disabilities, Center for Distance Learning, Institutional Research, Testing Center, Information Technology, and Office of Student ID Card. Staff members from each of these offices reported allocating between 5%-10% of their time to DC. As shown in Table E.1, the annual cost per SCH of central office staffing for Community College A is \$51.20. Community college central office costs per SCH are the same across districts because we prorate costs across districts based on the number of SCH. One-third of those costs result from the salaried work time of faculty coordinators, 15% come from the administrative and registrar specialists, another 15% is generated through the Dean of DC and members of the Dean's staff, and the rest of the community college central office costs (approximately 40%) is generated through all other staff members listed above.

School District Central Office and Site-Based Administrative and Advising Costs for District Partners of Community College A

The three districts we sampled have similar central office staffing patterns for administering DC. Each school district employs a DC liaison, who facilitates communication between the Dean of DC and the district central offices. In District 1A, this person allocates half their salaried work time to DC, whereas the DC liaison allocates 30% and 70% of their time in Districts 2A and 3A, respectively. In District 1A, the Executive Director of curriculum and Instruction allocates 10% of their time to support DC teacher certification and monitor DC course scheduling, whereas the executive director of High School Academics takes on a similar role in District 2A. The associate

Superintendent for High Schools in Actively involved in DC in Districts 2A and 3A, but no in District 1A. District 1A has the highest administrative costs largely because four district-level counselors in the central office, who supervise site-based counselors, allocate 20% of their time each to DC education. Other staff members who allocate some time to DC education at the central office level include the textbook warehouse service coordinator, the Director of Language Proficiency Assessment Committee, and Texas Success Initiative (TSI) proctors and TSI “bootcamp” teachers. Under Texas Education Code, students must be identified as “college ready” prior to enrolling in college-level coursework including dual credit. Students gain this designation by passing TSI assessments or through waivers granted to students who pass Advanced Placement courses or who earn high scores on the SAT, ACT. The responsibility of meeting TSI requirements falls on the student, but postsecondary institutions typically assist students with the process. Community College A worked help certify district officials so that students can complete TSI assessments on high school campuses. As a result, districts offering dual-credit education incur costs for TSI testing, which include salaried work time for test proctors, a week-long half-day test preparation session (the TSI bootcamp, held in all three districts), and TSI testing units, which we discuss below.

School-level costs for DC include salaried work time for assistant principals and counselors. Principal and assistant principal DC liaisons in Districts 1A and 2A estimated that at each high school one academic counselor allocates approximately 0.10 FTE (about four hours per week) for activities related to DC that they would otherwise allocate to other matters in the absence of DC. Counselors in District 3A spent slightly less time (about 0.05 FTE). In exchange, these counselors oversee a smaller number of students than other academic counselors in the building (i.e., receive a “smaller alpha”). Similarly, across all three districts, one assistant principal is selected to oversee DC, representing approximately 0.10 FTE of their typical work week. Finally, the school district provides their own specialized professional development for new dual-credit teachers.

Instructional Personnel Costs for Community College A and Its District Partners

Over that past 10 years, Community College A has partnered with the local 4-year university to certify a substantial number of high school teachers to serve as DC instructors. According to Texas Education Code, to teach a DC course, high school teachers must have a Master’s degree and 15 credit hours in the subject area in which they will receive certification to teach DC courses. To increase the number of teachers with DC certifications, the community college re-directed external, philanthropic donations from student scholarships for DC to scholarships for high school teachers. As a result of these efforts, high school teachers instruct most DC courses at Community College A. As shown in Table E.1, the community college incurs instructional

costs of \$11, \$9, and \$15 per SCH in Districts 1A, 2A, and 3A, respectively. Most faculty at Community College A are full-time, which generally increases costs; however, because the majority of SCH are granted in courses taught by high school teachers, instructional costs for Community College A are generally lower than in other community colleges in our sample.

Offering DC courses on a high school campus, taught by high school teachers, does not increase teacher staffing costs for schools because DC courses count as regular high school courses (and would exist in the absence of DC). In contrast, the school district can reduce teacher staffing levels when dual-credit courses are taught by community college faculty, rather than high school teachers. While the majority of DC at Community College A is taught by high school teachers, DC liaisons and district administrators noted the cost savings associated with assigning community college faculty as instructors of dual-credit courses. As one district administrator reported, “If dual credit were to go away, then we would have to absorb those kids back into our system and it would cost us a lot of money to do that. That instruction right now, we would have to instruct those classes because [students] are counting on almost all of them for graduation requirements.” We account for reduced teacher staffing costs based on the number of SCH taught by a community college faculty member, assuming each DC course taught by a community college faculty member is a DC course that does not need to be taught by a high school teacher. Our data show that the average high school teacher course load is five courses per semester (10 per year), the average class size is 24 students. Thus, the school district can reduce one FTE teacher for each 720 SCH (3 SCH per student per course x 24 students per course x 10 courses per year). As shown in Table E.1 the average cost savings for reduced teacher staffing in Districts 1A, 2A, and 3A are \$7, \$10, and \$9, respectively.

Other Costs for District Partners of Community College A and Its Students

In addition to personnel costs, stakeholders incur non-personnel costs for textbooks, high school teacher stipends, transportation, and TSI testing units. In all three districts, textbooks are provided to students for who enroll in DC courses. Textbook for courses taught by community college faculty are based on a one-semester cycle, whereas those taught by high school teacher are typically replaced every four years (a requirement in each of the MOUs). We calculate the costs of textbooks over and above the cost of textbook in traditional non-DC courses, in which most textbooks run on a 10-year cycle. Stipends for teacher who teach dual credit ranged from \$100 to \$600 per course.

School districts provide transportation for students from their local high school to a community college campus. District officials reported that only about one-third of students use the transportation (the other one-third provide their own transportation). We drew on publically available TEA data to determine that the average per-student expenditures on transportation

for the three largest district in the region is \$244, or \$81 per student if one third of students use the service. This estimate is close to one district official's estimate that the transportation costs associated with 300 students enrolling in DC on a community college campus would typically costs the district \$25,000 or \$83 per student.

Students also incur a small amount of costs related to transportation to community college campuses. Because textbooks and tuition fees are all paid for by the school district, the only cost is transportation to community colleges, for those students who choose not to use the district-provided transportation. District officials estimated that approximately two-third of students provide their own transportation and the typical student travels five miles two per week to attend two courses on a community college campus.

School district incur the costs of credential teachers (although much of these costs are defrayed through external funding provided through philanthropic donations). To be certified to teach DC, high school teachers must have a master's degree including 15 SCH in the content area. Nearly 100 teachers in District 1A currently hold credentials to teach dual credit. Half of these individuals already held an MA degree, while the other half completed their degree at the local university to obtain DC certification. We estimate the cost of completing an MA degree, based on the cost of tuition and books, approximately \$8,000 (these figures are rounded to maintain anonymity). Given the average tenure of teachers in the area is about 11 years, we annualize these costs over 11 years using a discount rate of 5%. The resulting cost is \$1,402 per teacher per year for each credentialed teacher.

The final two non-personnel costs that school districts incur are related to the Texas School Initiative. The district's TSI "bootcamp" includes various materials that amount to approximately \$20 per participant. In addition, districts pay a fee per unit of \$1.70 for TSI testing credits. Districts purchase one credit for each student in each subject for a pre-test and three credits for each test. On average, each dual-credit student requires approximately 7.5 units to become eligible for DC in two subjects.

Tuition and Fees

Community College A charges school districts \$100 per student per dual-credit course when the course is taught by a community college faculty member. Tuition is waived for courses taught by high school teachers and for courses taken by early college high school students. As shown in Table E.1, tuition payments do not affect the total cost per SCH, but they decrease the cost burden the community college and increase the cost burden to the school district. However, because high school teachers are the instructors for the vast majority of DC courses in Community College A, the total tuition payments per SCH are generally low.

Table E.1. Costs per semester credit hour for three school districts partnering with Community College A

Cost Category	District 1A		District 2A		District 3A	
College Admin. and Advising	\$51.20		\$51.20		\$51.20	
College Instructional Personnel	\$10.53		\$9.49		\$14.71	
District and High School Admin and Advising	\$43.22		\$34.00		\$38.49	
High School Teacher Cost Savings	(6.55)		(10.48)		(8.76)	
District and High School Other Costs	\$27.98		\$26.32		\$24.45	
Costs to Students	\$0.59		\$0.33		\$0.97	
College Cost Pre-Tuition	\$61.73	48.6%	\$60.69	54.7%	\$65.91	54.4%
School District Cost Pre-Tuition	\$64.65	50.9%	\$49.84	45.0%	\$54.18	44.8%
Student Cost Pre-Tuition	\$0.59	0.5%	\$0.33	0.3%	\$0.97	0.8%
College Tuition (Revenue)	(4.31)		(2.92)		(6.07)	
District/HS Tuition	\$4.31		\$2.92		\$6.07	
Students Tuition	\$0.00		\$0.00		\$0.00	
College Cost Post-Tuition	\$57.42	45.2%	\$57.77	52.1%	\$59.84	49.4%
School District Cost Post-Tuition	\$65.47	51.6%	\$60.60	54.7%	\$51.62	42.6%
Student Cost Post-Tuition	\$0.59	0.5%	\$0.33	0.3%	\$0.97	0.8%
Total Cost	\$126.98		\$110.86		\$121.06	

Costs for Community College B and Its District Partners

Community College B is located in an urban metropolitan area and enrolls over 20,000 students with approximately one-quarter enrolled as high school students through dual credit. The College partners with over 25 districts to offer dual-credit education courses. Community College B uses adjunct faculty for about two-thirds of all courses, and adjunct faculty are disproportionately assigned to dual-credit courses (teaching approximately three-quarters of all

dual-credit courses). In the sub-section below on instructional costs, we describe how this unique arrangement influences costs.

As shown in Table E.2, the annual cost of dual-credit education for dual credit administered in comprehensive high schools through Community College B is \$88 per-semester credit hour in one sampled district and \$66 in a second district, with the majority of the cost burden falling on the community college. In the sub-sections below, we describe the resources that generate these costs. As before, we first describe the community college central office costs, and then describe school district administrative and advising costs, instructional costs for the community college and school districts, and finally, all other costs associated with dual credit. We then briefly describe how costs are distributed across stakeholders.

Community College Administrative and Advising Costs for Community College B

The central office administration in Community College B includes three separate offices that together are responsible for administering dual credit: (a) a high school relations office that works with area school districts; (b) an office of academic advising; and (c) an office of student services (to maintain anonymity, we do not use the official office names). The high school relations office includes an executive director, a full time administrative assistant, two data entry administrators, and two coordinators. The office of academic advising includes an executive director and an administrative assistant, and a total of four full-time advisors and two advisor managers, all of whom are assigned 100% to dual credit. An office of student services (enrollment) includes an executive director, a full time administrative assistant, two enrollment managers, and seven enrollment coordinators.

A number of other staff members in various offices in Community College B allocate a portion of time to dual credit. Librarians work with dual-credit students, particularly on Fridays, when high school students are assigned to a community college campus, but are not in class (since most classes meet either Mondays and Wednesdays or Tuesdays and Thursday). The executive director of dual credit in the high school relations office estimated that two librarians spend approximately two hours per week to oversee dual-credit students, amounting to a total of 4 hours per week or 0.10 full-time equivalent (FTE) librarians across all community college campuses. Community college administrators estimated that three IT specialists allocated approximately one-third of their time each to assisting dual-credit students. An additional staff member who oversees student ID cards allocates approximately one-quarter of their time to dual-credit students. Finally, dual credit creates the need for additional faculty evaluation. Faculty evaluation in smaller departments is generally part of the daily work schedule of department chairs (and represents only a small proportion of their time); however, larger

departments form faculty evaluation committees and the chair of those committee receives one course release per semester. Community college administrators estimated that a total of 16 departments have faculty evaluation committees, resulting in a total of 3.2 FTE community college faculty members, given a teaching load of five courses per semester ($16 / 5 = 3.2$).

Administration of dual credit at the community college central office also involves non-personnel costs including a customer relationship management (CRM) enrollment system the community college purchased to help administer dual credit (a total cost of \$40,000 per year or about \$0.67 per semester credit hour), reimbursement for community college faculty travel to local high schools, and stipends to community college faculty for serving as mentors of new dual-credit teachers (\$400 per mentor). While we report findings based on the annual cost per semester credit hour, we can also determine the total, per-student, and per-semester credit hour costs at each high school, to gain a sense of the cost impact for an individual school or district. To determine the costs for each high school (or district), we prorate community college central office and advising costs across all schools with which Community College B partners, based on the number of semester credit hours at each school. In total, the annual administrative and advising cost for Community College B is \$1.9 million or about \$32 per SCH. Table E.2 below shows the annual cost per semester credit hour of dual credit in comprehensive high schools (we discuss the cost of dual credit in early colleges in a separate section). As shown in Table E.2, this cost is the same across districts.

School District Central Office and Site-Based Administrative and Advising Costs for District Partners of Community College B

The districts we sampled for Community College B are two of the area's largest in terms of both total enrollment and the total semester credit hours received, collectively accounting for about one-third of all dual-credit semester credit hours granted per year through Community College B. These two districts take somewhat different approaches to offering dual credit. District 1B has prioritized dual credit as a major initiative and has opened high school programs that specialize in dual-credit delivery, such as early colleges, in half of the district's high schools. The director of the college readiness office reported spending approximately half her salaried work time on dual-credit education and estimated that the associate superintendent for high schools allocated about one-quarter FTE. The district also has a director of early colleges who allocates 0.45 FTE to dual credit (their time is often pulled to other nondual-credit tasks). Central office personnel also include the district registrar (10% FTE) and Texas School Initiative (TSI) assessment proctors, who are either paraprofessionals assigned to proctor TSI assessments or are external members hired on an hourly basis. At District 1B high schools, Principals and the academic dean both allocate time to dual credit. The district uses non-certificated college

advisors to provide academic advising to dual-credit students (allocated at 0.50 FTE for each 1,000 semester credit hours). These individuals also help promote FAFSA completion and college applications. The presence of college advisors allows the Academic Counselors to focus on ensuring students have the necessary requirements to finish high school. The district uses the school-within-school early college model and has early college coordinators at each early college high school, but those individuals are responsible for a wide number of tasks, such as creating the master schedule, overseeing FAFSA applications, and other tasks not directly tied to dual credit in particular (i.e., activities that would exist in the absence of dual credit). Early college coordinators therefore allocate roughly 0.45 FTE to dual credit. The district also hires substitutes or specifically allocates teachers to meet with dual-credit students on Friday afternoons, when students are enrolled in dual-credit courses that meet only Mondays through Thursdays, but the district would otherwise be responsible for students during this time anyway and so substitutes and special teacher scheduling does not generate additional costs. In total, the costs of school district administration and advising in District 1B is about \$60 per semester credit hour as shown in row 3 of Table E.2

District 2B has a leaner dual-credit administrative structure, despite the fact that the district's annual number of semester credit hours is almost as high as District 1B. As shown in row 3 of Table E.2, the per-semester credit hour cost of district administration and advising District 2B is \$31. The district has only two individuals in the central office who allocate more than a trivial amount of salaried work time to dual credit (a senior director of college readiness who serves as the liaison between the district and community college, and a dual-credit coordinator). District 2B also has TSI proctors assigned to multiple schools and we used the same formula to determine the total FTE for TSI proctors (6 total hours for each 24 students who initially enrolls in dual credit each year). At the school-level, academic counselors focus primarily on high school completion and college readiness, while allocating only a small proportion of time to dual-credit advising. Instead, the district hires dual-credit coordinators at each high school who allocate approximately 75% of their time to dual credit.

Instructional Personnel Costs for Community College B and Its District Partners

In all districts partnering with Community College B, data show that the majority of dual-credit courses are taught on a high school campus by adjunct community college faculty. While most adjunct faculty teaching in high schools are employed primarily by the community college, a small proportion are actually high school teachers. In contrast to other dual-credit delivery models, high school teachers who teach dual credit go through the same interview process as other adjunct faculty members and become formal employees of the community college. These individuals receive compensation both as adjunct faculty and as K–12 teachers (they are reported as K–12

teachers in our data; however, community college administrators reported that all high school teachers who teach dual credit in the area are required to become adjunct community college faculty). In District 1B, dual-credit teachers (who are also employed as adjunct community college faculty) also receive a stipend of \$1,000 (included as “other costs” below).

Because Community College B uses similar delivery mechanisms with each partnering district (relying primarily on adjunct faculty traveling to high schools, with additional courses offered on the community college campus), the cost of instructional personnel is similar across districts, \$43 and \$41 in District 1B and 2B, respectively, as reported in row 2 of Table E.2. The slight difference results from the specific number of full-time versus part-time community college faculty teaching courses in each district and the amount of travel reimbursement (Community College B reimburses faculty for travel to area high schools). These cost figures include instructional costs for the community college for course taught on both high school and college campuses, by both adjunct and full-time faculty, and both online and face-to-face. Online courses have similar cost implications except the community college does not need to reimburse faculty for travel, students and school districts do not incur transportation costs, and districts need to assign a staff member to a classroom for online coursework that takes place during the fall or spring semester. Interestingly, because of the low wages adjunct community college faculty receive, dual-credit courses taught by adjunct faculty in high schools – the primary delivery mechanism at Community College B – is the least expensive method. Although some dual-credit courses are taught by adjunct faculty who are also full-time high school teachers employed by the district who (in District 1B) receive stipends in addition to their annual salary, that mechanism is generally less common in Community College B and as a result, the annual cost per semester credit hour in Community College B is generally lower than in other sites that we sampled.

Both school districts save a significant amount of money through reduced teacher staffing associated with dual credit. As noted above, whether students leave campus to attend dual-credit courses, or community college faculty come to the high school, district administrators reported significant savings associated with reduced teacher staffing. Districts do not lose state funding as long as they are present for four hours during the day (or meet other requirements, see Texas Education Agency, 2017) and districts administrators schedule dual credit to meet this minimum attendance requirement. We account for this savings using similar methods as described earlier. As shown in Table E.2, District 1B receives an average of \$80 per semester credit hour in cost-savings, while District 2B receives \$77 per semester credit hour. The difference in cost-savings results from the fact that districts do not save money when high school teachers teach dual-credit courses, which we can observe for each individual high school in our data.

Other Costs for District Partners of Community College B and its Students

Other costs for school districts and students include textbooks, transportation, and TSI testing units. District 1B pays for textbooks for students in early colleges, and splits the cost of textbooks with students in dual-credit courses outside of early colleges. District administrators estimated that courses taught by community college faculty require students to purchase a textbook for each course, while textbooks run on a four-year cycle for dual-credit courses led by high school teachers. The typical high school class textbook runs on a 10-year cycle, so the costs of textbooks for dual credit is based on the additional costs associated with shorter cycles. District 1B also encourages students to share textbooks or makes copies in some cases, reducing the overall cost of textbook by an estimated 25%. In District 2B, students pay for all of the costs of textbooks regardless of setting. Depending on the context and course delivery mechanisms, textbooks represent between 10-15% of the total annual cost of dual-credit education at Community College B.

Transportation in District 1B is provided to early college students free of charge. District officials estimated that about one-third of students use this transportation, whereas students provide their own transportation in all non-early college dual-credit courses in both districts. In general, transportation represents a small proportion of the overall costs. Finally, both districts pay for TSI testing units so that students can become eligible for dual-credit courses. As noted earlier, in Texas, a student must be deemed “college ready” prior to enrolling in college-level coursework including dual credit. Districts cover the cost of TSI testing units, which must be purchased for students to take TSI assessments. Given the number of units each student takes, district administrators estimated that each dual-credit student generates a cost of approximately \$20 for TSI testing units (5 to 10 TSI units across 2 to 3 subject areas). In District 1B, the annual cost of textbooks, dual-credit high school teacher stipends, and TSI units add up to \$18 per semester credit hour, as shown in Table E.2. District 1B also covers tuition charges and transportation for early college students, which we discuss below. Because District 2B does not pay for textbooks or transportation and does not offer teacher stipends, the only costs beyond administration and advising (i.e., “other costs”) are for TSI units, which amount to \$4.25 per semester credit hour, shown in row 5 of Table E.2.

The cost to students for dual credit in District 1B is \$17 per semester credit hour, which includes transportation, textbooks, and tuition (for courses ineligible for waivers or courses beyond the initial 12-course tuition waiver). Community College B administrators estimate that only 5% of all dual-credit courses are ineligible or are taken by students who have already passed the initial 12-course tuition waiver, so this amounts to under \$2 per semester credit hour. Students

in District 2B incur a greater cost, \$35 per semester credit hour, because the district does not pay for textbooks.

Tuition and Fees

As noted earlier, Community College B grants tuition waivers for the first 12 courses of dual credit. A limited number of courses are not eligible for the tuition waiver and these courses are determined on a case-by-case basis and vary from semester to semester. Community College B charges districts \$100 per student per course in early college, which District 1B covers (District 2B does not have any early colleges). This fee is assessed because Community College B guarantees that early college students will have access to the courses necessary to complete an Associate's degree.

Differences in Cost Burden for Community College B, Its District Partners, and Students

As shown in Table E.2, Community College B pays for the majority of costs of dual credit (84% in District 1B and 111% in District 2B). Because districts save money through reduced teacher staffing requirement, the proportion of dual-credit costs that districts incur is much lower, amounting to only 19% in District 1B. The cost of dual credit is negative in both districts because the cost savings associated with dual credit is greater than the sum of all other costs. Moreover, in District 2B, Community College B actually incurs more costs per SCH than the total cost (111%) because of the limited DC staffing at the District 2B central office and at district high schools and because of the large cost savings incurred by the district through reduced teacher staffing. Students pay a total of 19.4% of costs in District 1B and 53.2% in District 2B. If we ignore the cost savings associated with reduced teacher staffing, the costs are more evenly spread across community colleges, school districts and students (45%, 45%, and 10% in District 1 and 49%, 25%, and 26% in District 2, respectively). Finally, because tuition fees are waived for the majority of dual credit in traditional comprehensive high schools, adding tuition to the cost calculations has little impact on differences in the cost burden of dual students.

Table E.2. Costs per Semester Credit Hour for Three School Districts Partnering With Community College B

Cost Category	District 1B		District 2B	
College Admin. and Advising	\$32.08		\$32.08	
College Instructional Personnel	\$42.93		\$40.57	
District and High School Admin and Advising	\$58.54		\$31.07	
High School Teacher Cost Savings	(80.33)		(77.28)	
District and High School Other Costs	\$17.98		\$4.25	
Cost to students	\$17.12		\$34.93	
College Cost Pre-Tuition	\$75.01	84.9%	\$72.64	110.7%
School District Cost Pre-Tuition	(\$3.81)	-4.3%	(\$41.96)	-63.9%
Student Cost Pre-Tuition	\$17.12	19.4%	\$34.93	53.2%
College Tuition (Revenue)	(1.67)		(1.67)	
District/HS Tuition	\$0.00		\$0.00	
Students Tuition	\$1.67		\$1.67	
College Cost Post-Tuition	\$73.34	83.0%	\$70.98	108.2%
School District Cost Post-Tuition	-\$3.81	-4.3%	(\$41.96)	-63.9%
Student Cost Post-Tuition	\$18.79	21.3%	\$36.60	55.8%
Total Cost	\$88.32		\$65.62	

Note: Negative costs for school districts result from cost-savings associated with reduced teacher staffing (see text for further detail). When we omit these cost-savings, the annual cost per semester credit hour is \$168 and \$143, respectively, and the costs are more evenly spread across stakeholders. Tuition is only paid by students who enroll in more than 12 DC courses while in high school (all other tuition is waived); therefore, our results do not change substantially when the cost of tuition is included.

Costs for Community College C and Its District Partners

Community College C is a mid-sized community college located in an urban area. The college serves a total of 16 traditional school districts and two charter school districts, and uses full-time college faculty as instructors for most of its dual-credit education courses. Despite the large number of partnerships, almost half of all dual-credit semester credit hours that Community College C offers are directed to one large urban school district where there are eight high schools offering dual-credit courses. We collected data from two school districts that Community College C serves, which account for 56% of all dual-credit education courses for the community college. One of these, District 1C, was the large school district previously mentioned, while District 2C is relatively smaller serving only one high school. In this study, we calculated the total annual cost and cost per semester credit hour of dual credit for both school districts.

As Table E.3 shows, the total annual cost of dual-credit education per dual-credit semester hour that Community College C provides to District 1C is \$113; this cost increases to \$176 for District 2C. The main burden of these costs, once tuition cost is taken into account, primarily shifts from the districts to the college. Below, we describe in more detail the personnel and non-personnel resources and their associated costs that make up the total dual-credit education cost.

Community College Administrative and Advising Costs for Community College C

Community College C spends around \$45 in administration and advising costs per dual-credit semester credit hour across all districts served. At Community College C, the dual-credit program is run by a Director of Dual Credit and Early College Programs. This Director oversees four Dual Credit and Early College Coordinators who are involved in the day-to-day communication and outreach to school districts and high schools. This includes maintaining relationships with high school counselors overseeing dual-credit students on the high school side, and providing information sessions about dual-credit programs at each high school. Within the Dual-Credit Program office, there is also a Workforce Programs Coordinator who manages any partnerships with high schools providing career and technical dual-credit courses. Additionally, there is a full time administrative assistant for the Dual-Credit Program Office. These staff members who spend all their time on dual-credit programs account for more than 70% of the total college administrative and advising costs.

In addition to these staff who spend all their time on dual credit and early college programs, there are other college administrative staff who devote some of their time toward overseeing and administering the dual credit and early college programs at Community College C. These staff include the 'Provost and Vice President for Academic Affairs', the 'Vice President for Student Affairs', three Deans of various departments, and the 'Director of Admissions'. These higher-level administrators were estimated to spend approximately 25% to 30% of their overall time on matters related to dual credit and early college programs. These higher-level administrators account for the bulk of the remaining administrative costs for dual credit.

Lastly, there are some non-personnel costs related to college administration and advising for dual credit. In total, these non-personnel costs account for only \$1.14 per semester credit hour. The largest of these non-personnel costs is the cost of travel for administrative staff who go out to school districts and high schools for outreach visits.

School District Central Office and Site-Based Administrative and Advising Costs for District Partners of Community College C

The two school districts partnering with Community College C had substantially different school district central office and site-based administrative and advising costs. In District 1C, the large

district with eight high schools offering dual credit, the administrative and advising costs for the district amounted to \$73 per semester credit hour. In District 2C, these costs came to \$97 per semester credit hour.

The scale of operations for the two districts seemingly played a large role in the difference. For District 1C, much of the administrative burden occurred at the district level. While there were no staff with dedicated positions related to dual credit, there were numerous staff in the central office who spent some of their time on the administration of dual credit. These individuals manage the district student records related to dual credit, making sure students are properly enrolled, enter grades for dual-credit students, and run the purchasing and warehousing of textbooks for dual credit. The district staff described that there are high volume time periods at the beginning of the fall and spring semesters where they spend a lot of time on dual credit, but in other parts of the year they devote relatively little time to dual credit. In addition, there are staff at each high school that devote some time to dual-credit administration, such as principals or vice principals and deans of instruction. In total, administrative costs in District 1C amounted to \$15 per semester credit hour.

Because District 2C is a single high school district, the bulk of the administrative burden occurred at the high school, with the principal and a Dean of Instruction. Due to the devotion of more school-level time for administration and the lower number of semester credit hours, administrative costs per semester credit hour for District 2C amounted to \$35.

On the advising side, each high school in District 1C has a counselor who devotes much of their time to dual credit. Each high school has a 'Dual-Credit Counselor' who serves as the point of contact between the high school and the college and also is responsible for coordinating testing for students, ensuring that students properly enroll, and advising students on course taking. In addition to these eight Dual-Credit Counselors, the other high school counselors were also involved in advising their caseloads of students in a more minor way. Counselors are also involved in monthly meetings that serve to update central office representatives on dual credit. Dual credit advising costs for District 1C amounted to \$58 per semester credit hour.

Similarly, District 2C has a 'Director of College and Career Readiness', who was a counselor overseeing dual credit at the high school. This individual does the bulk of dual-credit advising, while the other school counselors play a secondary role. Dual-credit advising costs for District 2C came to \$61 per semester credit hour.

Instructional Personnel Costs for Community College C and Its District Partners

Community College C covers most, if not all, of the instructional personnel costs for school Districts 1C and 2C. This is the result of almost all instructors delivering dual credit being college

faculty as opposed to high school teachers. More than 80% of instructors teaching dual-credit students in Community College C were full-time faculty. As full-time college faculty are substantially more expensive than part-time faculty or high school teachers, the instructional costs per semester credit hour paid for by Community College C were relatively high compared with other colleges in our sample. In total, instructional costs amounted to \$77 per semester credit hour.

We also made the assumption that if enough students take dual-credit courses from non-high school teachers, high schools should be able to reduce their own teaching staff. Our assumption is that every 720 semester credit hours offered in a traditional high school would reduce the need for high school teachers by one. This number was generated by the assumption that a high school teaching load is five periods and an average class size of 24 students. Additionally, we assumed that high schools would cut part of an FTE. So once a school hit 720 semester credit hours, they would lose one FTE teacher, but under 720 semester credit hours they would not lose any teachers. Using these assumptions, we calculated that District 1C would only lose one teacher while District 2 would lose two teachers. This results in a cost savings of almost \$19 per semester credit hour in District 1C and \$85 in District 2C. The difference is due to District 1C offering dual credit across numerous traditional high schools. Only one high school reached the 720-semester credit hour threshold. Despite offering less overall dual credit in District 2C, it was all through a single high school.

Other Costs for District Partners of Community College C and Its Students

Other costs for delivering dual-credit program to high school students might include textbook, testing, and transportation. These costs are mostly covered by the districts or the students themselves, and not the Community College. District 1C pays \$5.09 per dual-credit semester hour for textbooks, which students are not required to pay for. The district covers the cost of testing for all students who are eligible for free or reduced-price lunch, otherwise students pay for the cost of testing. The district pays \$1.13 while students pay \$0.76 per dual-credit semester hour for testing. District 1C does not offer any bus transportation option to the community college. The total for other costs for District 1C is \$6.97 per dual-credit semester hour – amount which is shared by the district (\$6.22) and students (\$0.76).

In District 2C, other costs are largely split between the district and students. In District 2C, students cover the cost of textbooks for non-CTE classes which adds up to \$22.22 per dual-credit semester hour. The district, however, covers the cost of testing (\$3.91 per dual-credit semester hour). An additional cost in District 2C, not found in District 1C is the cost of bus transportation. In District 2C, a bus runs between the high school and the district twice a day. In

total these other costs amount to \$24 per semester credit hour for the district and \$22 for students.

Tuition and Fees

Community College C charges a flat fee of \$33 per semester credit hour – or \$99 per three-credit course. Districts 1C and 2C differ in their approach to paying that fee. In District 1C, the district pays the fee for all free or reduced-price lunch students and early college high school students, while the students pay if they are not in either of those categories. In District 2C, the students pay for all academic dual-credit courses. In both districts, the community college bears the bulk of the cost burden prior to accounting for tuition and fees, while the district bears most of the burden after accounting for tuition and fees. Additionally, in District 2C, the tuition and fee arrangement along with textbooks being paid for by students places approximately 21% of the cost burden on students and their families.

Differences in Cost Burden for Community College C, Its District Partners, and Students

Community College C pays the larger amount of dual-credit costs in District 1C and 2C, contributing 79% and 51% of the costs, in each district respectively. Both districts benefit from reduced high school teacher staffing as the districts can hire less teachers when some of their students enroll in dual-credit courses. Before paying tuition, District 1C even makes 8.7% in savings from reduced staffing. However, given the district pays the larger bulk of the \$33 tuition fees for its students, it ends up paying 14.3% of the total cost of dual-credit education. District 2C makes \$90 in high school teacher cost savings and requires its students to pay the full tuition amount, but overall contributes a 17.6% to the cost of dual credit. Students in District 1C pay a total of 6.8%, whereas students in District 2C pay a total of 31%. If we ignore the cost savings that both high schools make, that shifts the burden of the larger sum of the cost to the districts. Not counting these savings, District 1C pays 52%, Community College C pays 44.2%, and students pay 3.8% of the costs of dual-credit education. In District 2C, these numbers become 45.5%, 33.7%, and 20.8% for the district, the college, and students, respectively.

Table E.3. Costs per Semester Credit Hour for Two School Districts Partnering With Community College C

Cost Category	District 1C		District 2C	
College Admin and Advising		\$45.41		\$45.41
District and High School Admin and Advising		\$73.00		\$96.58
Instructional Personnel		\$77.08		\$77.19
High School Teacher Cost Savings		(\$89.10)		(\$90.19)
District and High School Other Costs		\$6.22		\$24.41
Costs to Students		\$0.76		\$22.22
College Cost Pre-Tuition	\$122.49	108.1%	\$122.60	69.8%
School District Cost Pre-Tuition	(\$9.88)	-8.7%	\$30.81	17.5%
Student Cost Pre-Tuition	\$0.76	0.7%	\$22.22	12.7%
College Tuition (Revenue)		(\$33.00)		(\$33.00)
District/HS Tuition		\$26.07		\$0.00
Students Tuition		\$6.93		\$33.00
College Cost Post-Tuition	\$89.49	78.9%	\$89.60	51.0%
School District Cost Post-Tuition	\$16.18	14.3%	\$30.81	17.6%
Student Cost Post-Tuition	\$7.69	6.8%	\$55.22	31.4%
Total Cost		\$113.36		\$175.63

Note: Negative costs for school districts result from cost-savings associated with reduced teacher staffing (see text for further detail). When we omit these cost-savings, the annual pre-tuition cost per semester credit hour is \$202.47 in District 1 C and \$265.82 in District 2C, and the costs are more spread across community colleges, school districts and students (61%, 39%, and 0.4% in District 1C, and 46%, 46%, and 8% in District 2C, respectively). The post-tuition cost after omitting cost-savings is 44%, 52% and 4% in District 1C, and 34% 46% and 21% in District 2C, respectively.

Costs for Community College D and Its District Partners

Community College D is a large community college in a rural area, serving a total of twenty traditional school districts. The College uses high school teachers as instructors for most of its dual-credit courses. We collected data from three of the largest school districts that partner with Community College D, and that collectively receive 30.5% of all the dual-credit education that the College provides in the region. For each site, we calculated the distribution of the total annual cost and cost per dual-credit semester hour.

As Table E.4 below shows, the total annual cost of dual-credit education per dual-credit semester hour that Community College D provides to District 1D is \$165, to District 2D is \$123,

and to District 3D is \$145. Taking into account tuition fees, the districts in sites 1D and 3D are the primary payers for dual-credit education costs, spending \$113 and \$74, respectively, per dual-credit semester hour. In District 2D, the cost burden primarily falls on Community College D, which pays \$53, and the district, which pays \$47. Below, we describe in more detail the dual-credit personnel and nonpersonnel resources and their associated costs.

Community College Administrative and Advising Costs for Community College D

Community College D spends around \$40.68 in administrative and advising costs across the three school districts in our sample. The Community College has a team of 15 members who dedicate some, or all, of their time to running the College's dual-credit program. The program is run by a 'Dual-Credit Outreach Director' who spends about 50% of their time on the program, and by two coordinators who solely work on dual-credit related activities. These staff consult with three school deans, each of whom spend an estimated 25% of their time on dual credit, and with a vice president of student and academic services, who spends 40% of their time on dual-credit related matters. The school also employed a faculty evaluator that helps—with approximately 70% of their time—in assessing high school teachers' ability to provide quality dual-credit classes. Other staff, such as two coordinators and a college administrator, dedicate all their time to the program.

Similar to other community colleges that provide dual-credit classes, Community College D also has non-personnel dual-credit costs related to administering the program. The non-personnel dual-credit costs include travel expenses to school districts for outreach and other purposes, orientation meetings and materials, and other office expenses such as ones used in trainings of the program's administrative staff.

School District Central Office and Site-Based Administrative and Advising Costs for District Partners of Community College D

The administrative and advising costs for the dual-credit program on the school district side, for districts in our sample that partner with Community College D, varied substantially. The cost of providing dual-credit education in District 1D was \$74.01 per semester credit hour, while that amount was \$39.25 in District 2D, and \$66.03 in District 3D. The higher administrative and advising costs in District 1D could be the result of the smaller number of dual-credit students that the district serves, and subsequently the fewer dual-credit semester hours, that the district offers compared to the other districts. This smaller number of dual-credit semester hours leaves District 1D with relatively higher operational costs when these costs. Similarly, the pricier operational costs could also explain the difference in dual-credit administrative and advising

costs between District 2D and District 3D, as the latter offers a little over than half the semester credit hours that District 2D offers.

In terms of both personnel and non-personnel costs, District 1D had many staff, such as the principal, the director of programs, the athletic director, and a technology consultant, who contribute a little of their time to running the dual-credit program. District 2D and District 3D on the other hand had key persons, such as a college and career specialist and a director for Early College High Schools and CTE, who contribute most of their time to the program. There were other staff members who provide support for dual-credit programs in District 2D and 3D, however that level of support was minimal in District 2D. As for non-personnel costs, these were mainly used to cover enrollment activities' costs in all three Districts.

Instructional Personnel Costs for Community College D and Its District Partners

Instructional Personnel costs, similar to Administrative and Advising costs, were highest for District 1D: \$52.91 per dual-credit semester hour. District 2D and District 3D were alike in this regard with costs of \$40.97 and \$39.38, respectively, per dual-credit semester hour. All districts in our sample use a distant learning model to deliver some dual-credit courses. In addition, the districts also have one or two high school teachers who teach dual-credit courses on the high school's campus. In Districts 1D and 3D, these teachers also offer other non-dual-credit courses at their high schools, so the districts do not pay those teachers any extra costs specifically for their instruction of dual-credit courses. On the other hand, District 2D provides a stipend for its high school teachers who teach dual-credit courses. Finally, both District 1D and 2D cover transportation costs for high school teachers when they visit the Community College for their professional development.

In district 2D, there was also enough dual-credit courses provided by non-high school teaching staff that could the district was able to reduce the amount of teaching staff in their district by one teacher. This results in a cost savings of \$18.90 per dual-credit semester credit hour. The other districts had fewer dual-credit semester credit hours with a substantial percentage already taught by high school teachers. Therefore, they did not realize cost savings associated with reductions in high school teaching staff.

Other Costs for District Partners of Community College D and Its Students

Other costs related to the provision of dual-credit education in District 1D are \$33.92, which are much higher than District 2D's \$0.67 and District 3D's \$22.22. These costs include those of textbooks, testing, and bus transportation. What sets out District 1D in this regard is that the

district provides the textbooks for its students at no cost, unlike District 2D and 3D. District 1D and 3D also incur student transportation costs to and from the community college, whereas District 2D does not cover such costs.

Tuition and Fees

Community College D has different arrangements with school districts for charging dual-credit courses tuition. The College charges District 2D a tuition of \$28.74 per semester hour as a fixed cost to school districts per student per semester credit hour. Districts 1D and 3D, pay a tuition of \$34.72 and \$44.5 per semester credit hour, respectively. However, the arrangement is such that the two school districts buy a block of dual-credit courses from Community College D that are delivered on the districts' high school campuses. If either District 1D or 3D were to request additional courses beyond what is included in their purchase, Community College D charges the market price for any extra course (approximately 11 times the cost of a course included in the bundle). Both Districts 1D and 2D waive tuition for students and take on the costs of the dual-credit courses, while District 3D requires its students to pay 85% of the tuition cost if they decide to take a certain class that is not included in the offered course package paid for by the school district.

Differences in Cost Burden for Community College D, Its District Partners, and Students

As Table E.4 below shows, Districts 1D and 3D pay the larger sum (68% and 51%, respectively) of the total cost of dual credit. In District 2D, Community College D covers 43% of the total cost, while the district covers 38%, and the students cover 19%. If we do not account for any high school teacher cost savings, which are savings from decreased high school staffing given students' enrollment in dual credit, some of the cost burden in District 2D shifts from the college to the district. District 2D in that case pays 47%, and Community College pays 36.5% of the total cost of dual credit. In Districts 1D and 3D, the distribution of burden is only exaggerated in that case as districts pay a larger sum (73% and 60%, respectively) of the total cost of dual credit. In the three districts, students' contribution only slightly changes to 2.9%, 16.2% and 20%, respectively, of the total amount per dual-credit semester hour.

Table E.4. Costs per Semester Credit Hour for Three School Districts Partnering With Community College D

Cost Category	District 1D		District 2D		District 3D	
College Admin and Advising	\$40.68		\$40.68		\$40.68	
District and High School Admin and Advising	\$74.01		\$39.25		\$66.03	
Instructional Personnel	\$40.97		\$40.97		\$39.38	
High School Teacher Cost Savings	(\$29.96)		(\$22.09)		(\$31.79)	
District and High School Other Costs	\$33.92		\$0.67		\$8.61	
Costs to Students	\$5.67		\$23.47		\$22.22	
College Cost Pre-Tuition	\$81.64	49.4%	\$81.64	66.4%	\$80.05	55.2%
School District Cost Pre-Tuition	\$77.97	47.2%	\$17.83	14.5%	\$42.85	29.5%
Student Cost Pre-Tuition	\$5.67	3.4%	\$23.47	19.1%	\$22.22	15.3%
College Tuition (Revenue)	(\$34.72)		(\$28.74)		(\$44.53)	
District/HS Tuition	\$34.72		\$28.74		\$31.04	
Students Tuition	\$0.00		\$0.00		\$13.48	
College Cost Post-Tuition	\$46.92	28.4%	\$52.90	43.0%	\$35.53	24.5%
School District Cost Post-Tuition	\$112.69	68.2%	\$46.57	37.9%	\$73.89	50.9%
Student Cost Post-Tuition	\$5.67	3.4%	\$23.47	19.1%	\$35.71	24.6%
Total Cost	\$165.28		\$122.95		\$145.12	

Note: Negative costs for school districts result from cost-savings associated with reduced teacher staffing (see text for further detail). When we omit these cost-savings, the annual cost per semester credit hour is \$195, \$145, and \$177 respectively, and the pre-tuition costs are more evenly spread across community colleges, school districts and students (42%, 55%, and 3% in District 1D, 56%, 28% and 16% in District 2D, and 45%, 42%, and 13% in District 3D, respectively). When the cost of tuition is included, those percentages change to 24%, 73% and 3% in District 1D, 37%, 47% and 16% in District 2D, and 20%, 60% and 20% in District 3 respectively).

Costs for Community College E

Community College E is a medium-sized community college in a rural area, serving a total of thirty traditional school districts. In this site, we only looked at the cost of dual credit from the College's side.

Community College Administrative and Advising Costs for Community College E

Community College E spends about \$23.20 per dual-credit semester hour in administrative and advising costs, as shown in Table E.5. The bulk of this amount is spent on administrative personnel as the college has two staff members, a Director of Dual Credit and a Coordinator, who

dedicate all their time to the program. The Dean of Instructional Administration at the college is also heavily involved in the program. In terms of advising costs, the college has a full-time staff member, on its advising services team, who attends to dual-credit students. Non-personnel costs for dual-credit staff and activities are kept to a minimum at Community College E.

Instructional Personnel Costs for Community College E

Community College E spends \$69.78 per dual-credit semester hour on instructional personnel at the college. For districts that have high school teachers instruct the dual-credit courses, Community College E either pays those teachers a part-time faculty rate or it provides the districts with a stipend and lowers tuition fees for students. The college also provides those high school teachers with mentoring and teaching demonstrations opportunities, and invites them to teach summer classes at the college.

Table E.5. Costs per Semester Credit Hour at the College Level for Community College D

Cost Category	College
College Admin and Advising	\$23.20
Instructional Personnel	\$69.78
College Cost Pre-Tuition	\$94.33
College Tuition	(50.00)
College Cost Post-Tuition	\$44.33

Appendix F. English Language Arts Protocol

Syllabus Review

Review of Syllabus – The purpose of the review of syllabi is to gather baseline information on academic expectations between dual-credit and college-credit only courses. The analysis will be based on the study team’s review of course syllabi submitted by instructors of record for these courses. Please review the syllabus and respond to the following questions, accordingly.

Are the following skill objectives included in the syllabus?: Y/N/Unclear

Objectives	Yes	No	Unclear
Critical thinking skills			
Communication skills			
Teamwork			
Understand writing process (planning, drafting, revising, editing)			
Analyze purpose, audience, tone, style, and writing strategy when in written works			
Analyze various types of written works			
Develop computer literacy			
Command of grammatical structure			
Drawing conclusions			
Making inferences			

Does the syllabus cover the following topics?: Y/N/Unclear

Topics		Yes	No	Unclear
General	Text analysis			
	Source analysis			
	Research skills			
	Idea development			
	Audience, purpose, and occasion			
	Individual and collaborative writing processes			
	Thesis statement			
	Paragraph construction			
	Informative writing			

Essay/composition development	Persuasive writing			
	Analytical writing			
	Use of appropriate citation methods (as stated by instructions)			
	Technical aspects of writing identify rhetorical purposes and methods of organization appropriate to topic, thesis, and audience			
	Revision strategies (individual and/or collaborative)			
Stages of writing process	Invention			
	Researching			
	Drafting			

Are the following components included in the syllabus?: Y/N/Unclear

- Homework expectations – including hours of time students should spend on homework
- Plagiarism policies
- Class participation
- Student conduct
- Attendance policies
- Prerequisites are listed
- Provisions for students with special needs are outlined
- Expectations for technology use
- Grading
 - Allowance of late work
 - Options for extra credit
 - Drop lowest test score

Are the following assignments included in the syllabus? Y/N/Unclear

Assignments	Yes	No	Unclear
Papers/essays			
Presentations			
Readings			
In-class assignments			
Journals			

	Blogs			
	Peer reviews			
Reading requirements	Papers assigned			
	Books required			
	Literary texts			

Assignment Types

Assignments		Yes	No	Unclear
Assignments	Papers/essays			
	Presentations			
	In-class assignments			
	Journals			
	Blogs			
	Peer reviews			
	Reading requirements	Books required		
Papers assigned				
Informational texts				
Literacy texts				
	Other			

Are the following **Graded Elements** included in the syllabus and if so what percentage of the final course grade does it represent

Assignments	Not included	Under 10%	10%–20%	21%–30%	31%–40%	41%–50%
Quizzes						
Pop Quizzes						
Cumulative Final Exam						
End of Chapter tests						
Oral Exams						
Midterms						
Papers						
Presentations						
Homework						
Participation						
Research						
Case Studies						
Extra Credit						
Portfolio						

*percentages are the amount counted towards final grade—which should add up to 100%.

Assignment Review

STEP 1: Review the materials.

- Locate the assignment to be evaluated
- Locate the three student work that corresponds to the assignment.
- Scan the lesson/unit to see what it contains and how it is organized.
- Review the topic focus of the assignment

STEP 2: Identify which skill objectives(s) students will need to demonstrate or use in completing this assignment.

- Critical thinking Skills
- Communication Skills
- Teamwork
- Understand writing process (planning, drafting, revising, editing)
- Analyze purpose, audience, tone, style, and writing strategy when in written works
- Analyze various types of written works
- Develop computer literacy
- Draw conclusions from text
- Make inferences from text

STEP 3: Determine which level of cognitive complexity (what the assignment is actually asking the student to do with the content) the student is being asked to engage in (see appendix A for definitions and examples).

- 1: Interacting with new content (e.g., clarifying author's meaning)
- 2: Practicing and deepening new content (e.g., arguing about text, using evidence to support)
- 3: Cognitively complex tasks (e.g., expressing original and abstract ideas and using course texts to support those ideas)

STEP 4: Determine which level of cognitive demand (the degree or complexity of knowledge that the assignment requires) the student is being asked to engage in (see appendix B for definitions).

- Level 1
- Level 2
- Level 3
- Level 4

Review of Student Work

STEP 5: Determine what level the student work reflects on the novice-expert continuum (see appendix C for definitions).

- Emerging Expert
- Accomplished Strategic Thinker
- Strategic Thinker
- Emerging Strategic Thinker
- Accomplished Novice
- Novice Thinker
- Emerging Novice

Evidence:

Rubric measuring Cognitive Complexity

Categories	Definition	Examples
Interacting with new content	<p>Students must actively process new information in order to retain it</p> <p>Students are given the opportunity to process small chunks of new content</p>	<ul style="list-style-type: none"> • Previewing and processing new content • Identifying critical content, • Elaborating on new information, • Reflecting on learning • Summarizing and clarifying content
Practicing and deepening content	<p>Students must have opportunities to practice skills and deepen their understanding of information. Deeper awareness is forged through repeated exposure to knowledge, involving practice and knowledge-deepening activities</p> <p>Students wrestling with content as they build the stamina required to reach higher levels of thinking</p>	<ul style="list-style-type: none"> • Examining similarities and differences • Examining errors in reasoning • Reviewing and revising knowledge
Cognitively complex tasks	<p>Work that requires students to think on their own or with peers as they refine higher-order thinking skills.</p> <p>For students, the core of effectively engaging with content in a more complex way and they have the ability to produce and support claims.</p> <p>At this level students are able to master a structured and rigorous method for producing and supporting claims that include these steps: (1) State a claim (2) Establish grounds (3) Provide backing (4) Frame qualifiers to include describing counter-arguments as well as identifying thinking errors</p>	<p>Hypothesis generation and testing, Investigating, Problem-solving, Decision-making Experimental inquiry Inventing and student-designed tasks</p>

Cognitive Demand

ELA Cognitive Demand Framework

Level		Definition	Sample Activities	Verbs/Statements to look for
1	Recall/ Reproduction	Recall a fact, information, or procedure. Process information on a low level.	<p>a. Writing</p> <ul style="list-style-type: none"> • Listing/generating ideas or words prior to developing written composition (e.g., brainstorming, webbing) • Selecting or recalling appropriate vocabulary (words, phrases, idioms) to achieve intended meaning in writing • Writing simple sentences • Using punctuation marks and capitalization correctly in writing and editing • Using Standard English conventions in writing and editing to correct errors • Identifying misspelled words in a written passage • Applying conventional spelling patterns/rules to new situations in writing • Using resources (dictionary, thesaurus) to correct spelling in written passages • Using resources to identify Standard English grammatical structures for correction • Using resources to apply basic formats for documentation <p>b. Reading</p> <ul style="list-style-type: none"> • Identify or describe characters, setting, sequence of events <p>Select appropriate words to use in context (e.g., content-specific words, shades of meaning) when intended meaning is clearly evident</p>	<p>Statements:</p> <ul style="list-style-type: none"> • Provide or recall facts, terms, definitions, conventions • Locate literal answers in text • Identify relevant information • Explain simple concepts or routine procedures <p>Other potential verbs: Cite, Define, Explain, Give Examples, Illustrate, List, Name, Quote, Report, Select, State</p>

Level		Definition	Sample Activities	Verbs/Statements to look for
2	Skill/ Concept	Use information or conceptual knowledge, two or more steps	<p>a. Writing</p> <ul style="list-style-type: none"> Note-taking or outlining as a means of organizing ideas for writing Developing text which <u>may be</u> limited to one paragraph Using simple organizational strategies to structure written work (e.g., basic paragraph form: indenting, main idea, supporting details; simple transitions) Constructing a variety of sentence types (e.g., simple and compound, sentences with embedded phrases) Writing summaries that contain the main idea of a reading selection and pertinent details or quotations Demonstrating basic understanding and appropriate use of such reference materials as a dictionary, thesaurus, or web site Editing final drafts of compositions for mechanics and conventions, including grammar, punctuation, and capitalization <p>b. Reading</p> <ul style="list-style-type: none"> Make basic inferences or draw basic conclusions about information presented in text Recognizing appropriate generalizations about text (e.g., possible titles, main ideas) Identify and summarize the major events, problem, solution, conflicts in a literary text Distinguish between fact and opinion Describe the characteristics or features of various types of text Locate information to answer questions related to explicit or implicit central ideas in informational texts Identify use of literary devices (e.g., imagery, idioms, exaggeration) 	<p>Statements:</p> <ul style="list-style-type: none"> Show relationships Apply a concept Use context clues to identify the meaning of unfamiliar words Describe the cause/effect of a particular event Predict a logical outcome Identify patterns in events or behavior <p>Other potential verbs: Categorize, Classify, Compare, Construct, Describe, Determine, Distinguish, Explain, Extend, Extrapolate, Formulate, Generalize, Infer, Interpolate, Interpret, Modify, Observe, Organize, Predict, Relate, Represent, Show, Simplify, Sort, Use</p>

Level	Definition	Sample Activities	Verbs/Statements to look for
3	Strategic Thinking Requires reasoning, developing a plan or a sequence of steps, some complexity	<p>a. Writing</p> <ul style="list-style-type: none"> • Developing compositions that include multiple paragraphs • Using complex or varied sentence structures in written compositions • Demonstrating some synthesis and analysis in writing (making inferences; determining relationships; generalizing, or connecting ideas) • Showing awareness of audience and purpose through focus, organization, voice/tone • Using appropriate organizational text structures (e.g., description; chronology; proposition/support; compare/contrast; cause/effect) • Editing and revising to improve the quality and meaning of the composition • Supporting ideas with details, examples, quotations, text references, and/or citations • Revising final drafts to improve organization and precision of language to produce a logical progression of ideas • Summarizing information from multiple sources to address a specific topic <p>b. Reading</p> <ul style="list-style-type: none"> • Explain, generalize, or connect ideas, using supporting evidence from the text or from other sources • Draw inferences about author’s purpose, author’s message or theme (explicit or implied) • Make and support inferences about implied causes and effects • Describe how word choice, point of view, or bias affects the interpretation of a reading selection • Summarize or compare information within and across text passages • Analyze interrelationships among elements of the text (plot, subplots, characters, setting) • Analyze or interpret use of author’s craft (literary devices) to 	<p>Statements:</p> <ul style="list-style-type: none"> • Explain phenomena in terms of concepts • Support ideas with details and examples • Compile information from multiple sources to address a specific topic • Develop a logical argument • Identify and justify a solution • Identify the author’s purpose and explain how it affects interpretation of a reading selection <p>Other potential verbs: Appraise, Assess, Cite evidence, Compare, Compile, Conclude, Contrast, Critique, Decide, Defend, Describe, Develop, Differentiate, Distinguish, Examine, Formulate, Identify, Infer, Interpret, Investigate, Judge, Justify, Reorganize, Support</p>

Level	Definition	Sample Activities	Verbs/Statements to look for
4	Extended Thinking	<p>analyze or critique a literary text</p> <p>a. Writing</p> <ul style="list-style-type: none"> • Developing multi- paragraph compositions that demonstrate synthesis and analysis of complex ideas or themes • Analyzing author’s craft (e.g., style, bias, literary techniques, point of view) • Demonstrating evidence of a deep awareness of purpose and intended audience. (e.g., in informational reports including hypotheses and supporting evidence) • Creating compositions that demonstrate a distinct voice and that stimulate the reader or listener to consider new perspectives on the addressed ideas or themes • Writing an analysis of two selections, identifying the common theme and generating a purpose that is appropriate for both • Gathering, analyzing, and evaluating written information for the purpose of drafting a reasoned report that supports and appropriately illustrates inferences and conclusions drawn <p>b. Reading</p> <ul style="list-style-type: none"> • Compare or analyze multiple works by the same author, including authors’ craft • Compare or analyze multiple works from the same time period or from the same genre • Gather, analyze, organize, and interpret information from multiple (print and non-print) sources for the purpose of drafting a reasoned report • Evaluate the relevancy and accuracy of information from multiple sources 	<p>Statements:</p> <ul style="list-style-type: none"> • Synthesize ideas into new concepts • Connect common themes across texts from different cultures or areas • Synthesize information from multiple sources <p>Other potential verbs: Appraise, Connect, Critique, Judge, Justify, Prove, Report, Synthesize</p>

Novice-Expert Continuum

Categories	Definition
Emerging Expert	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply knowledge in a variety of context <input type="checkbox"/> Holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Abstract thinking and strong ability to synthesize and integrate information <input type="checkbox"/> Developed? “Conceptual understanding”—the why
Accomplished Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply abstract thinking, ability to synthesize and integrate variety of sources and information <input type="checkbox"/> Command of “conditional knowledge” – the when—when to apply the knowledge <input type="checkbox"/> Developing holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Developing “conceptual knowledge” – the why
Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Able to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Deep understanding of subject matter <input type="checkbox"/> Developing abstract thinking, analytical skills and ability to synthesize/integrate information <input type="checkbox"/> Developing command of “conditional knowledge” – the when—when to apply the knowledge
Emerging Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Developing ability to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Able to analyze information and discern patterns in information due to familiarity with subject <input type="checkbox"/> Command of “procedural knowledge” – the how
Accomplished Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Connecting subject matter to big ideas, aware of complexity of subject <input type="checkbox"/> Developing contextual knowledge <input type="checkbox"/> Meets basic expectations and guidelines <input type="checkbox"/> Ability to interpret and apply information <input type="checkbox"/> Demonstrates “declarative/descriptive knowledge” – the what
Novice Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Superficial understanding of subject area, concept formation, solution seeking skills <input type="checkbox"/> Developing ability to interpret and discern rules and guidelines regarding basic standards
Emerging Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Limited background in subject area, minimal contextual understanding of subject <input type="checkbox"/> Developing ability to meet basic standards and requirements

Appendix G. Mathematics Protocol

Syllabus Review

Review of Syllabus – The purpose of the review of syllabi is to gather baseline information on academic expectations between dual-credit and college-credit only courses. The analysis will be based on the study team’s review of course syllabi submitted by instructors of record for these courses. Please review the syllabus and respond to the following questions, accordingly.

Does the syllabus cover the following topics?: Y/N/Unclear (will be set up as a table in an online platform)

- Polynomial
- Rational functions
- Radical functions
- Exponential functions
- Logarithmic functions
- Systems of equations using matrices
- Graphing
- Non-linear inequities
- Sequences and series
- Circles
- Binomial Theorem
- Number systems
- Real number system
- Probability
- Conics

Are the following skill objectives included in the syllabus?: Y/N/Unclear

- Critical thinking skills
- Communication skills
- Empirical and quantitative skills

Are the following components included in the syllabus?: Y/N/Unclear

- Homework expectations – including hours of time students should spend on homework
- Plagiarism policies
- Class participation
- Student conduct
- Attendance policies
- Prerequisites are listed

- Provisions for students with special needs are outlined
- Expectations for technology use
- Grading
 - Allowance of late work
 - Options for extra credit
 - Drop lowest test score

Are the following assignments included in the syllabus?: Y/N/Unclear

Assignments

- Problem sets
- Presentations
- Reading
- Projects
- In class assignments
- Blogs
- Peer reviews
- Other

Are the following **Graded Elements** included in the syllabus and if so what percentage is given to the element

Assignments	Not included	Under 10%	10%–20%	21%–30%	31%–40%	41%–50%
Quizzes						
Pop Quizzes						
Cumulative Final Exam						
End of Chapter tests						
Oral Exams						
Midterms						
Projects						
Papers						
Presentations						
Homework						
Participation						
Research						
Case Studies						
Extra Credit						
Portfolio						
Other						

*percentages are the amount counted toward final grade

Assignment Review

STEP 1: Review the Materials.

- Locate the assignment to be evaluated
- Locate the student work that corresponds to the assignment.
- Scan the lesson/unit to see what it contains and how it is organized.
- Review the topic focus of the assignment

STEP 2: Identify which skill objectives(s) students will need to demonstrate or use in completing this assignment.

- Critical thinking Skills
- Communication Skills
- Empirical and quantitative skills

STEP 3: Determine which level of cognitive complexity (what the assignment is actually asking the student to do with the content) the student is being asked to engage in (see appendix A for definitions and examples).

- 1: Interacting with new content
- 2: Practicing and deepening new content
- 3: Cognitively complex tasks

STEP 4: Determine which level of cognitive demand (the degree or complexity of knowledge that the assignment requires) the student is being asked to engage in (see appendix B for definitions).

- Level 1
- Level 2
- Level 3
- Level 4

Student Work

STEP 5: Determine what level the student work reflects on the novice-expert continuum (see appendix C for definitions).

- Emerging Expert
- Accomplished Strategic Thinker
- Strategic Thinker
- Emerging Strategic Thinker
- Accomplished Novice
- Novice Thinker
- Emerging Novice

Evidence:

Cognitive Complexity

Categories	Definition	Examples
Interacting with new content	<p>Students must actively process new information in order to retain it</p> <p>Students are given the opportunity to process small chunks of new content</p>	<ul style="list-style-type: none"> • Previewing and processing new content • Identifying critical content, • Elaborating on new information, • Reflecting on learning • Summarizing and clarifying content
Practicing and deepening content	<p>Students must have opportunities to practice skills and deepen their understanding of information. Deeper awareness is forged through repeated exposure to knowledge, involving practice and knowledge-deepening activities</p> <p>Students wrestling with content as they build the stamina required to reach higher levels of thinking</p>	<ul style="list-style-type: none"> • Examining similarities and differences • Examining errors in reasoning • Reviewing and revising knowledge
Cognitively complex tasks	<p>Work that requires students to think on their own or with peers as they refine higher-order thinking skills with few interruptions by the teacher</p> <p>For students, the core of effectively engaging with content in a more complex way and they have the ability to produce and support claims.</p> <p>At this level students are able to master a structured and rigorous method for producing and supporting claims that include these steps: (1) State a claim (2) Establish grounds (3) Provide backing (4) Frame qualifiers to include describing counter-arguments as well as identifying thinking errors</p>	<p>Hypothesis generation and testing, Investigating, Problem-solving, Decision-making Experimental inquiry Inventing and student-designed tasks</p>

Cognitive Demand

Mathematics Cognitive Demand Framework

Level	Definition	Sample Activities	Verbs/Statements to look for
1	Recall/ Reproduction Recall a fact, information, or procedure. Process information on a low level	<ul style="list-style-type: none"> • Recall or recognize a fact, definitions, or term • Apply a well-known algorithm • Perform a specified or routine procedure • Evaluate an expression • Solve linear equations • Identify a plane or three dimensional figure • Determine the area or perimeter of rectangle or triangles given a drawing and labels 	Verbs: Calculate, Draw, Label, Locate, List, Match, Measure, Perform, Select, Tabulate, Recall, Identify, Recognize, Use
2	Skill/Concept Use information or conceptual knowledge, two or more steps	<ul style="list-style-type: none"> • Classify planes and three dimensional figures • Use models to represent mathematical concepts • Solve a routine problem requiring multiple steps, or the application of multiple concepts • Compare and contrast figures • Compare figures or statements • Provide justifications for steps in a solution process • Extend a pattern • Retrieve information from a table, graph, or figure and use it to solve a problem requiring multiple steps • Translate between tables, graphs, words and symbolic notation • Select a procedure according to criteria and perform it 	Verbs: Apply, Calculate, Categorize, Classify, Compute, Construct, Convert, Estimate, Find, Graph, Identify patterns, Predict, Relate, Represent, Show, Simplify, Solve, Sort, Use, Organize, Make Observations, Collect and Display Data, Compare Data

	Level	Definition	Sample Activities	Verbs/Statements to look for
3	Strategic Thinking	Requires reasoning, developing a plan or a sequence of steps, some complexity	<ul style="list-style-type: none"> • Interpret information from a complex graph • Explain thinking when more than one response is possible • Make and/or justify conjectures • Develop logical arguments from a concept • Use concepts to solve problems • Perform procedure with multiple steps and multiple decision points • Generalize a pattern • Describe, compare, and contrast solution methods • Formulate a mathematical model for a complex situation • Provide mathematical justifications • Solve a multiple-step problem supported with a mathematical explanation that justifies the answer • Formulate an original problem, given a situation 	Verbs: Check, Critique, Decide, Develop, Differentiate, Explain how, Formulate, Hypothesize, Interpret, Identify, Judge, Justify, Reorganize, Solve, Support
4	Extended Thinking	Requires an investigation, time to think and process multiple conditions of the problem.	<ul style="list-style-type: none"> • Relate mathematical concepts to other content areas • Relate mathematical concepts to real-world applications in new situations • Apply a mathematical model to illuminate a problem or situation • Conduct a project that specifies a problem, identifies solution paths, solves the problem, and reports results • Design a mathematical model to inform and solve a practical or abstract situation <p>NOTE: Level 4 requires applying one approach among many to solve problems. Involves complex restructuring of data, establishing and evaluating criteria to solve problems</p>	Verbs: Appraise, Connect, Create, Critique, Design, Judge, Justify, Prove, Report, Synthesize

Novice-Expert Continuum

Categories	Definition
Emerging Expert	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply knowledge in a variety of context <input type="checkbox"/> Holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Abstract thinking and strong ability to synthesize and integrate information <input type="checkbox"/> Developed? “Conceptual understanding”—the why
Accomplished Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to apply abstract thinking, ability to synthesize and integrate variety of sources and information <input type="checkbox"/> Command of “conditional knowledge” – the when—when to apply the knowledge <input type="checkbox"/> Developing holistic understanding of subject matter rather than fractional understanding of subject matter <input type="checkbox"/> Developing “conceptual knowledge” – the why
Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Able to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Deep understanding of subject matter <input type="checkbox"/> Developing abstract thinking, analytical skills and ability to synthesize/integrate information <input type="checkbox"/> Developing command of “conditional knowledge” – the when—when to apply the knowledge
Emerging Strategic Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Developing ability to apply insight, idea generation, concept formation and integrate different subjects/topics <input type="checkbox"/> Able to analyze information and discern patterns in information due to familiarity with subject <input type="checkbox"/> Command of “procedural knowledge” – the how
Accomplished Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Connecting subject matter to big ideas, aware of complexity of subject <input type="checkbox"/> Developing contextual knowledge <input type="checkbox"/> Meets basic expectations and guidelines <input type="checkbox"/> Ability to interpret and apply information <input type="checkbox"/> Demonstrates “declarative/descriptive knowledge” – the what
Novice Thinker	<ul style="list-style-type: none"> <input type="checkbox"/> Superficial understanding of subject area, concept formation, solution seeking skills <input type="checkbox"/> Developing ability to interpret and discern rules and guidelines regarding basic standards
Emerging Novice	<ul style="list-style-type: none"> <input type="checkbox"/> Limited background in subject area, minimal contextual understanding of subject <input type="checkbox"/> Developing ability to meet basic standards and requirements



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Access Regional K-16 Education Collaboratives Grant Program Funding

Applicants that support regional K-16 education collaboratives that create streamlined pathways from high school to postsecondary education and into the workforce can locate funding opportunities under this service.

CONTACT

**Foundation for California
Community Colleges**

k16collaborative@foundationccc.org
(<mailto:k16collaborative@foundationccc.org>)

About This Service

The 2021 Budget Act provides \$250,000,000 for the Department of General Services (DGS) to establish and administer a competitive grant program to support regional K-16 education collaboratives that create streamlined pathways from high school to postsecondary education and into the workforce.

Third Party Program Administrator

The Office of Public School Construction is pleased to announce that the Foundation for California Community Colleges (Foundation CCC) has been selected as the third party administrator for the Regional K-16 Education Collaboratives Grant Program. OPSC and Foundation CCC look forward to a strong partnership in developing and administering this exciting grant opportunity.

FoundationCCC has created a website for administration of the Program. The website includes Program information and contact information for questions, and in the near future, will include the grant application process. The website can be found at <https://k16collaborative.org/> (<https://k16collaborative.org/>)

ADDITIONAL CONTACT

Barbara Kampmeindert

Department of General Services
Office of Public School Construction

707 Third St
West Sacramento, CA 95605
More contact Info :

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E-
mail: barbara.kampmeindert@dgs.ca.gov
(<mailto:barbara.kampmeindert@dgs.ca.gov>)

The Regional K-16 Education Collaborative Grant Program (Program) requires the collaborative to meet all of the following criteria:

- a. Include at least one K-12 school district, at least one University of California campus, at least one California State University campus, and at least one California Community College district.
- b. Establish a steering committee, of which at least 25 percent of the members shall be local employers, thereby ensuring that regional economic needs inform the creation of the streamlined pathways.
- c. Commit to participate in the California Cradle-to-Career Data System (<https://www.cde.ca.gov/ds/dc/c2cdatasystemp20.asp>) established pursuant to Article 2 (commencing with Section 10860) of Chapter 8.5 of Part 7 of Division 1 of Title 1 of the Education Code.
- d. Commit to implement at least four of the following seven recommendations from the February 2021 Recovery with Equity (<https://postsecondarycouncil.ca.gov/initiatives/recovery-with-equity/>) report to promote student success:
 1. Improve faculty, staff, and administrator diversity.
 2. Cultivate inclusive, engaging, and equity-oriented learning environments.
 3. Retain students through inclusive supports.
 4. Provide high-tech, high-touch advising.
 5. Support college preparation and early credit.
 6. Subsidize Internet access for eligible students.
 7. Improve college affordability.
- e. Commit to create occupational pathways, including accelerated degree and/or credential programs that incorporate work-based learning, in at least two of the following sectors, based on regional needs:
 1. Healthcare
 2. Education
 3. Business Management
 4. Engineering or Computing
- f. By June 30, 2024, implement two of the target Recovery with Equity report recommendations and fully establish one occupational pathway, demonstrate progress toward the final two target Recovery with Equity report recommendations and occupational pathway, and participate fully in a statewide evaluation of the regional collaboratives.
- g. By June 30, 2026, fully implement both occupational pathways and all four target Recovery with Equity report recommendations.

INFORMATION, GUIDES AND RESOURCES

Office of Public School Construction Regional K-16 Education

Collaboratives Grant Program Meeting - Friday, December 10, 2021

- [Meeting Flyer \(/-/media/Divisions/OPSC/Agenda-Items/2021/12-December/Informational-Webinar-Flyer---K-16.pdf?la=en&hash=B8F0275277A1C26648D49723AF72DF7E6E858E9F\)](#)
- [\(/-/media/Divisions/OPSC/Agenda-Items/2021/11-November/11302021_FIT_AgendaItem_Final.pdf?la=en&hash=AE7093422BECEFD05B9A47752736D87BC4923E7\)Powerpoint Presentation \(/-/media/Divisions/OPSC/Resources/Webinar-for-Regional-K16-Education-Collaboratives-Grant-ProgramBHC-ADA.pdf?la=en&hash=C01B0A117A3B5EA353799E9AA766312982341870\)](#)
- [Webcast \(https://youtu.be/VrEorpysS9c\)](https://youtu.be/VrEorpysS9c)

Regional K-16 Education Collaboratives Grant Program Stakeholder

Meeting - Friday, February 25, 2022

- [Powerpoint Presentation \(https://www.dgs.ca.gov/-/media/Divisions/OPSC/Agenda-Items/2022/02-February/K16-February-Webinar-Slide-Deck-WITH-DESIGN-02-24-22-ADA-v2.pdf?la=en&hash=1ADE704334D93C10BAAF91BC0DB05497E4636C5C&hash=1ADE704334D93C10BAAF91BC0DB05497E4636C5C\)](https://www.dgs.ca.gov/-/media/Divisions/OPSC/Agenda-Items/2022/02-February/K16-February-Webinar-Slide-Deck-WITH-DESIGN-02-24-22-ADA-v2.pdf?la=en&hash=1ADE704334D93C10BAAF91BC0DB05497E4636C5C&hash=1ADE704334D93C10BAAF91BC0DB05497E4636C5C)
- [Webcast \(https://www.youtube.com/watch?v=hv8AB811BXE\)](https://www.youtube.com/watch?v=hv8AB811BXE)

Guides and Resources

- [February 2021 Recovery with Equity Report \(/-/media/Divisions/OPSC/Resources/Recovery-with-Equity_2021Mar25-12pm.pdf?la=en&hash=457BEB5C07F9753E0DA28C880E9BD69A718B018D\)](#) (pdf)
- [California Cradle-to-Career System \(https://c2c.ca.gov/\)](https://c2c.ca.gov/) (link)
A suite of user-friendly resources focused on early learning through K-12 and higher education, as well as the financial aid and social services that help students reach their goals.
- [Community Economic Resilience Fund \(https://edd.ca.gov/jobs_and_training/pubs/wsin21-20att2.pdf\)](https://edd.ca.gov/jobs_and_training/pubs/wsin21-20att2.pdf) (CERF)(pdf)
- [Join OPSC's email list for Program updates! \(https://k16collaborative.org/\)](https://k16collaborative.org/) (link)



Community Economic Resilience Fund

A program being developed by OPR and other state partners to support regional economies with an equitable and sustainable recovery from the economic distress of the COVID-19 pandemic.

ON THIS PAGE:

[What is CERF](#) | [Leadership Team](#) | [CERF Regions](#) | [Get Involved](#) | [Related Resources](#) | [For More Info](#)

What is the Community Economic Resilience Fund?

The CERF was created to promote a sustainable and equitable recovery from the economic distress of COVID-19 by supporting new plans and strategies to diversify local economies and develop sustainable industries that create high-quality, broadly accessible jobs for all Californians.

Specifically, the Community Economic Resilience Fund Program (CERF) would support communities and regional groups in producing regional roadmaps for economic recovery and transition that prioritize the creation of accessible, high-quality jobs in sustainable industries.

On September 23, 2021, Governor Gavin Newsom signed SB 162, which established the \$600 million CERF. The CERF is funded by the American Rescue Plan Act (ARPA).

CERF Leadership Team

The Governor's Office of Planning and Research (OPR), the California Labor Workforce Development Agency (LWDA), and the Governor's Office of Business and Economic Development (GO-Biz) – which together form the CERF Leadership Team – will facilitate the development of the CERF.

The CERF Leadership team is tasked with creating program guidelines, evaluation metrics, conducting oversight, and decision making related to the creation and management of the program and competitive grant structures.

CERF Regions

The CERF Leadership Team is responsible for the development of geographic regions and boundaries that can administer the program's funding and work.

The regions are defined in a way that prioritizes recovery from the COVID-19 pandemic and is consistent with existing economic development efforts as well as other state definitions of regional economic and labor markets. The final 13 regions will all receive planning grants and implementation funds through a competitive process. The release of the final regions also includes a Frequently Asked Questions (FAQs) section to address some of the concerns that emerged during the public comment period for the regions.



CERF Final Regions and Program FAQs

Access the CERF Leadership Team's CERF regions and frequently asked questions

Download pdf [📄](#)

Get Involved

CERF Planning Phase Draft Guidelines Available for Public Comment

The CERF Leadership team has released the Planning Phase Draft Guidelines for public comment. Please email your responses to WSBCERF@edd.ca.gov by Friday, January 28, 2022

[Download pdf](#) 

CERF Listening-Style Webinar on Planning Phase Draft Guidelines


Thursday, January 6, 2022 at 2:00 p.m.

CERF webinar that will feature facilitated discussion to solicit feedback on the Planning Phase Draft Guidelines.

[More information](#) 

Request for Information: CERF Program Evaluation

To provide responses to the RFI on program evaluation, please email WSBCERF@edd.ca.gov by Thursday, January 20, 2022.

[Read more at edd.ca.gov](#) 

Related Resources

CERF Fact Sheet

A fact sheet outlining the details of the CERF and how it works.

[Download pdf](#) 

SB-162 CERF Enacting Legislation

The State bill outlining the creation of the Community Economic Resilience Fund Program.

[Go to leginfo.legislature.ca.gov](https://leginfo.legislature.ca.gov) 

For More Information

Mary Collins

Mary is the Just Transition Program Manager. Prior to joining OPR, she was the Managing Director for the American Jobs Project, a non-profit think tank founded by Jennifer Granholm that focused on place-based economic development strategies to decarbonize our economy.

mary.collins@opr.ca.gov



Finalized CERF Regions and Responses to Frequently Asked Questions

We thank everyone for submitting comments and voicing your suggestions and concerns. The CERF Team has thoroughly reviewed all comments submitted, and below we provide finalized economic regions with high-level responses to some common themes and questions.

Final CERF Regions:





Economic Regions and Corresponding Counties:

Economic Regions	Counties
Southern Border	<ul style="list-style-type: none"> • Imperial • San Diego
Inland Empire	<ul style="list-style-type: none"> • Riverside • San Bernardino
Los Angeles County	
Orange County	
Central Coast	<ul style="list-style-type: none"> • Monterey • San Benito • Santa Barbara • Santa Cruz • San Luis Obispo • Ventura
Northern San Joaquin Valley	<ul style="list-style-type: none"> • Merced • San Joaquin • Stanislaus
Central San Joaquin Valley	<ul style="list-style-type: none"> • Fresno • Kings • Madera • Tulare
Kern County	
Eastern Sierra	<ul style="list-style-type: none"> • Alpine • Amador • Calaveras • Inyo • Mariposa • Mono • Tuolumne
Bay Area	<ul style="list-style-type: none"> • Alameda • Contra Costa • Marin • Napa • San Francisco • San Mateo • Santa Clara



Economic Regions	Counties
	<ul style="list-style-type: none"> • Solano • Sonoma
Sacramento	<ul style="list-style-type: none"> • Colusa • El Dorado • Nevada • Placer • Sacramento • Sutter • Yolo • Yuba
Redwood Coast	<ul style="list-style-type: none"> • Del Norte • Humboldt • Lake • Mendocino
North State	<ul style="list-style-type: none"> • Butte • Glenn • Lassen • Modoc • Plumas • Shasta • Sierra • Siskiyou • Tehama • Trinity

Frequently Asked Questions:

1. Q: My region already has some existing economic development planning efforts. Will the CERF-funded regional planning table overtake or erase our efforts? In other words, how will subregional efforts tie into the CERF economic regions?
 - a. CERF seeks to build on, not overtake existing economic development efforts. Think of these new, regional planning tables as a “team of teams.” Existing local planning efforts (e.g., Comprehensive Economic Development Strategies, High Road Training Partnerships, recovery task forces, etc.) will be incorporated into the larger planning table, alongside representatives from other voices and/or corners of the region that



may have not been involved in prior planning efforts. The organization that serves as the “neutral intermediary” or “convener” will help facilitate setting these new, inclusive planning tables. The momentum and activities of more localized planning efforts will be able to continue.

2. Q: My region is large and diverse. The delineation of regions does not reflect the reality of many communities and economies, and I worry that rural, tribal, and minority communities will not be meaningfully included in the process.
 - a. The aim of this program is to create meaningfully inclusive planning tables to collaborate in the design of a blueprint for a region’s recovery from COVID-19 and transition to a carbon-neutral economy. Just like a “team of teams,” representatives from various community groups throughout the CERF economic region—from urban to rural to tribal—must be at the table to provide their input, perspective, and expertise. That’s what makes this program so transformational and meaningful: a community and worker-centered approach to economic development planning.
3. Q: Industries don’t fit neatly within the CERF economic regions. How do we accommodate for this in our processes?
 - a. We understand that industries may exist in several regions, and/or industries may cross regional borders. The planning phase may account for this, and implementation projects can support projects that cross regional boundaries. During the planning process, you are encouraged to collaborate with any of the other economic regions, especially those who have similar industries and/or economic challenges. To the extent feasible, the state team can help support making these connections among economic regions.
4. Q: You mentioned specific examples of local and regional economic development planning efforts that have been taking place in California. If I’m located in the same region as one of these planning processes but am not already part of that effort, have we already missed the opportunity to be at the table?
 - a. No, these regional tables will be new tables and there will be opportunity to engage regardless of what previous activity has occurred in your area. The CERF economic planning process is an opportunity to engage many new voices and communities who may not have previously participated in economic development efforts in your region.



5. Q: Your memo failed to highlight the uniqueness of my county or region, and/or did not include the specific efforts that my organization is doing.
 - a. A: We understand that each locality, county, and region is unique. Moreover, we realize there are impressive efforts happening around the state, ranging from High Road Training Partnerships to Economic Development Councils, among others. We certainly did not attempt to touch on all the unique localities and partnerships in our large and diverse state, and instead we opted for a more manageable, higher-level memo.
6. Q: Why will regions receive the same amount for planning efforts?
 - a. We are providing all regions with the same amount for planning because each region faces different types of difficulties as it relates to recovery from COVID-19, and we aim to provide resources to all parts of the state.
7. Q: This all seems to be moving very quickly. Why?
 - a. The funds are from the American Rescue Plan Act and must be encumbered by June 30, 2024 for both the planning and implementation phases. Therefore, we aim to strike a balance between providing enough time for public comments and feedback on the program, while also ensuring that each region has enough time to come together to work on planning processes.
8. Q: I have questions about the planning phase, such as what entities are eligible to apply.
 - a. A: We welcome your questions and feedback on the planning phase. Draft guidelines will be available for public comment in December 2021.

Higher education will play an important role in our state's economic recovery from the pandemic—and in driving prosperity for California's future.

Student success in higher education is critical to the health of our state and regional economies. Since the global pandemic struck, Californians and postsecondary institutions alike have been grappling with extraordinary challenges. And long before, it was clear that many California students faced significant structural barriers to earning a college degree.

A stronger, more equitable future

In partnership with students and education leaders across the state, the Recovery with Equity Taskforce has recast today's challenges as an opportunity to help California's economy recover with a post-secondary ecosystem that is more equitable, resilient, coordinated, and aligned with the economic needs of the state.

Learn more about this vision—and the action and coordination it requires—in this [blog post](#) by Dr. Lande Ajose, Taskforce Chair and Senior Policy Advisor for Higher Education, Office of the Governor.

The Taskforce believes California needs a recovery that courageously addresses inequities in post-secondary education that have created and exacerbated wealth gaps. California will thrive when we eliminate income inequality and disparities of credential and degree attainment by race and geography.

What research uncovered

Recovery with Equity recommendations were informed by extensive research on post-secondary and workforce outcomes and experiences in California. The research included review of key findings from existing reports, original analyses of publicly available data, and interviews, focus groups, and survey responses provided by 196 stakeholders across California. Together, these findings emphasize the work needed to ensure that the opportunity for success and economic mobility is equitable and available to all.

[See key findings](#)

Recommendations

Grounded in the conviction that equity in higher education is essential to a stronger California for All, the Recovery with Equity Taskforce identified four guiding principles, each supported by a set of actionable recommendations for policy and practice.

Fostering Inclusive Institutions

Institutional cultures and approaches to teaching and learning that work for all learners, especially those left behind.

1. Improve Faculty, Staff, and Administrator Diversity
2. Cultivate Inclusive, Engaging, and Equity-Oriented Learning Environments
3. Retain Students through Inclusive Supports

Facilitating Student Transitions

High-touch, high-tech guidance and improved academic preparation for college access and success.

7. Provide High-Tech, High-Touch Advising
8. Support College Preparation and Early Credit

Streamlining Pathways to Degrees

Integrated statewide system for admission and transfer to provide clear, easy-to-navigate pathways to degrees.

4. Establish an Integrated Admissions Platform
5. Streamline and Unify the College Admission Process
6. Develop a Common Course Numbering System

Simplifying Supports for Student Stability

Resources and structures packaged and simplified to help students meet basic, digital, and financial aid needs.

9. Integrate Platform of State Services for Students

10. Subsidize Internet Access for Eligible Students

11. Improve College Affordability

[Explore recommendations further](#)

About the Taskforce

The Recovery with Equity Taskforce that developed these recommendations comprised California and national experts in higher education equity and innovation. It was established by Governor Gavin Newsom's Senior Policy Advisor for Higher Education, Dr. Lande Ajose, in consultation with the Governor's Council for Post-Secondary Education.

[Learn more about the Taskforce](#)

Engagement and input invited

The Taskforce's recommendations represent a call to Californians to take strong action that will require coordination and collaboration across segments, sectors, and within each region of our state. Your participation is valued and encouraged. Please contact us to share your feedback, questions, and ideas.

[Contact Us](#)

"California's public higher education system has long served as an engine for economic vitality, innovation, and social mobility across the state. As we work together to recover from the impacts of the

pandemic, we must ensure that we continue to expand access to our universities while improving affordability and excellence.”

— **Michael V. Drake, President, University of California**

The Governor’s Council for Post-Secondary Education envisions an integrated statewide system for post-secondary education that better serves California’s diverse students as part of a cradle-to-career educational continuum.

- [State of California website](#)
- [Office of Governor Newsom](#)

Our Strengths

We turn social impact ideas into reality.

Capitol Impact is a leading provider of strategy design, policy development, capacity building, and philanthropy advising to the social sector. Our firm brings an entrepreneurial approach to leadership and consulting, with a track record for catalyzing small initiatives to statewide movements.

Strategy Design

WE ELEVATE YOUR ORGANIZATION'S POSITION AS A LEADER IN YOUR FIELD.

We provide strategy development and implementation support to foundations looking to maximize their impact. We partner with you to position your grantmaking, networks, advocacy efforts, and other non-monetary community activities to solve big problems. As an initial step, we develop a strategy blueprint informed by our landscape analysis, grantee research, policy insights, community connections, and design thinking.

Project Incubation

WE TAKE NEW SOCIAL IMPACT IDEAS TO MARKET.

We provide startup support for new ideas that show potential to become movement-level solutions. We work intensively with key stakeholders to design the program, test its effectiveness, and build a model scalable to the challenge. Once mature, projects may spinoff to become independent, or we can provide ongoing management services.

Grantee Vetting & Support

WE MAXIMIZE YOUR GRANTMAKING EFFICACY.

We screen grantee prospects to ensure fitness for investment and significance to the mission. Prospect analysis includes leadership capacity, program effectiveness, timing of

investment, inclusiveness, and innovative practice. Once a grant has been made, we can continue to help grantees through technical assistance, capacity building, and leadership coaching. We can also design and facilitate convenings to support collaboration and align the work of your grantees.

Policy Change

WE PROVIDE TRAINING AND TECHNICAL ASSISTANCE TO IMPROVE POLICY OUTCOMES FOR NONPROFITS.

We offer a policy laboratory for nonprofits teams who aspire to test, implement, and scale a policy strategy in California. Most nonprofits that represent and work with disadvantaged communities often seek to impact public policy and influence policymakers but fail. The reality is that most nonprofits do not have policymaking or advocacy chops, so asking them to shift toward incorporating advocacy into their theory of change and day-to-day work is unrealistic without investment in their capacity. Our policy laboratory helps nonprofit build capacity and real-world expertise that can quickly move policy efforts forward. Essentially, we can help to create a soup-to-nuts campaign and provide the know-how so nonprofits can continue to do this work on their own.

[EXPLORE OUR SUCCESS STORIES](#) TO LEARN MORE ABOUT WHAT WE DO.

Capitol Impact is a leading provider of strategy design, policy and program development, and capacity building across sectors. Our firm brings an entrepreneurial approach to leadership and consulting, with a track record for catalyzing small initiatives to statewide movements.

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Success Stories



Capitol Impact has years of experience successfully collaborating with partners to develop, launch, refine and market their best ideas.

POLICY ADVANCEMENT

National and State Impact

- Launched as a small [policy and communications project](#) on behalf of the James Irvine Foundation, the Linked Learning Alliance became the leading hub organization to support the development of career pathways in California and beyond in just 8 years. During that time, the Legislature invested nearly \$2 billion to expand it as the signature high school redesign, and the White House and US Department of Education sought its expertise, advancements achieved by Capitol Impact without lobbying.

- As a result of its strategic partnerships, the [CORE Districts](#) are nationally renowned for expertise on continuous improvement, social-emotional learning, cross-district collaboration, data infrastructure, and student academic growth.

SOCIAL IMPACT

Informed Decision-Making

- Across the nation, legislative staff plays an increasingly crucial role in state policymaking. To maximize their effectiveness, the California Legislative Staff Education Institute provides specially tailored education and relationship-building programs to legislative staff from both houses and both parties. The Institute assembles policy-focused legislative staff “cohorts” and connects them to stakeholders impacted by state policies. Funding is provided by the Legislature and foundation partners, supporting cognitive reference points that inform legislative deliberation and create a culture of mutual trust and understanding.

Philanthropy Services

- As the external manager of [The James Irvine Foundation Leadership Awards](#), Capitol Impact showcases exemplary leaders to policymakers and practitioners to advance solutions that merit expansion, replication and/or policy support. The annual award program recognizes diverse leaders advancing innovative solutions to critical issues facing California. Each recipient’s organization receives a grant of \$250,000 and additional supports from Capitol Impact to increase the leader and the organization’s influence and impact statewide.

MANAGEMENT & INCUBATION

Staffing and Operations

- [Alliance for Regional Collaboration to Heighten Educational Success \(ARCHES\)](#) is a statewide association of regional collaboratives working to eliminate opportunity gaps and improve college and career readiness for California students. ARCHES’ collaboratives are composed of K-12 educators and leaders, higher education professors and administrators, parents, business leaders, and community stakeholders. Capitol Impact provides Program Management for ARCHES and its collaborative initiatives.

Design and Implementation

- California has the 5th largest economy in the world but is expected to need an additional one million career-ready college graduates by 2025 to meet employers’ needs. The [California Chamber Network](#) is a statewide network of employer associations working to address the talent pipeline deficit by advancing youth

employment opportunities to students. The network launched in 2015 through a partnership between California Foundation for Commerce and Education (CFCE) and Capitol Impact. The initiative has received [national recognition](#) and includes six chambers spanning Northern, Central, and Southern California. Current and former Chamber cohorts include California, Chico, Fresno, Los Angeles, Oxnard, Riverside, Sacramento Metro, and San Jose.

DIGITAL INNOVATION

- The [CORE Districts](#) empower educators with meaningful data and research that gives them a 360-degree view of students' strengths and challenges. Districts and counties turn to CORE for their easy to understand data dashboard and analytics. CORE's research partnership with Policy Analysis for California Education (PACE) builds an evidence base for innovation, influences policy and practice and informs teaching and learning.
- Work-based learning places students into professional environments to further their learning beyond the classroom. However, it is costly to manage and has not been made widely accessible to students in high school and community college. To expand access to these opportunities, Capitol Impact partnered with the Foundation for California Community College to build LaunchPath. [LaunchPath](#) offers regions a tool to scale work-based learning from guest speakers to internships and can be customized to regional needs. Since its debut, the tool has been adopted by dozens of K12 and community college districts.
- The pathway movement expanded rapidly in recent years, but there were no forms of quality assurance and recognition. Capitol Impact partnered with Linked Learning Alliance, IDEO, and Substantial to design a user-friendly, tiered quality assurance and recognition platform. [The Certification tool](#) now serves as a unifying platform for the field, and hosts over 600 pathway teams from various states in the US, as well as Canada and India.

No one in Sacramento better understands
how to turn smart ideas into results.

Darrell Steinberg

Mayor, City of Sacramento

Capitol Impact is a leading provider of strategy design, policy and program development, and capacity building across sectors. Our firm brings an entrepreneurial approach to leadership and consulting, with a track record for catalyzing small initiatives to statewide movements.

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Los Rios Presidents' Outreach Project White Paper

Overview. In the 2000s through the Great Recession of 2008, Los Rios experienced dramatic enrollment growth, fueled first by organic population growth then by the economic downturn that prompted thousands of students to seek higher education. Since the end of the Great Recession, overall enrollment at the Los Rios Colleges declined slowly but steadily in the ten years before the COVID-19 pandemic. The Los Rios decline in enrollment has accelerated dramatically in the two plus years of the pandemic. Historically, the Outreach efforts at the four Los Rios colleges focused primarily on each college providing information about its programs to high school students. As has been the case in other service areas (including Financial Aid and Admissions & Records until the beginning of the Redesign Project for FA and A&R), each college currently independently determines both what Outreach activities to conduct and how to measure the success of those activities. (For example, none of the college Outreach Departments has tracked how many contacts ultimately enrolled at one of our colleges.)

The Project. Presidents Bush, Dixon, Gutierrez and Yamamura are leading a project to evaluate opportunities to improve Outreach Services across the Los Rios Colleges and implement necessary changes and improvements. The Project will include:

- Securing a consultant to review the current state of Outreach at the Los Rios Colleges (consultant to be selected and begin work in **early March**)
- Engaging a broad array of stakeholders in Outreach to solicit feedback and insights
- Assessing staffing levels and organizational structures at the four colleges
- Reviewing best practices at the four colleges and identify opportunities for improvement
- Presenting a report to the Chancellor's Executive Staff including recommendations by the **end of the Spring 2022 semester**

The Goals. The Presidents will bring forward recommendation on the best pathway to:

- Define and clarify what the role of Outreach is in a period of sustained declining enrollment
- Identify best practices and determine how to scale best practices in Outreach across the Los Rios Colleges
- Align Outreach so that all Outreach professionals have an understanding of the programs across the Los Rios colleges
- Establish standards for measurement of Outreach success, including, but not limited to, measurements already common in much of higher education such as yield and enrollments leading from Outreach contacts

[ARC Outreach and Recruitment](#)

[CRC Outreach and Recruitment](#)

[FLC Outreach and Recruitment](#)

[SCC Outreach and Recruitment](#)



COMPASS[®]

COMPASS[®] Guide to Successful High School Outreach

Setting the Right Course for College Success

ACT[®]

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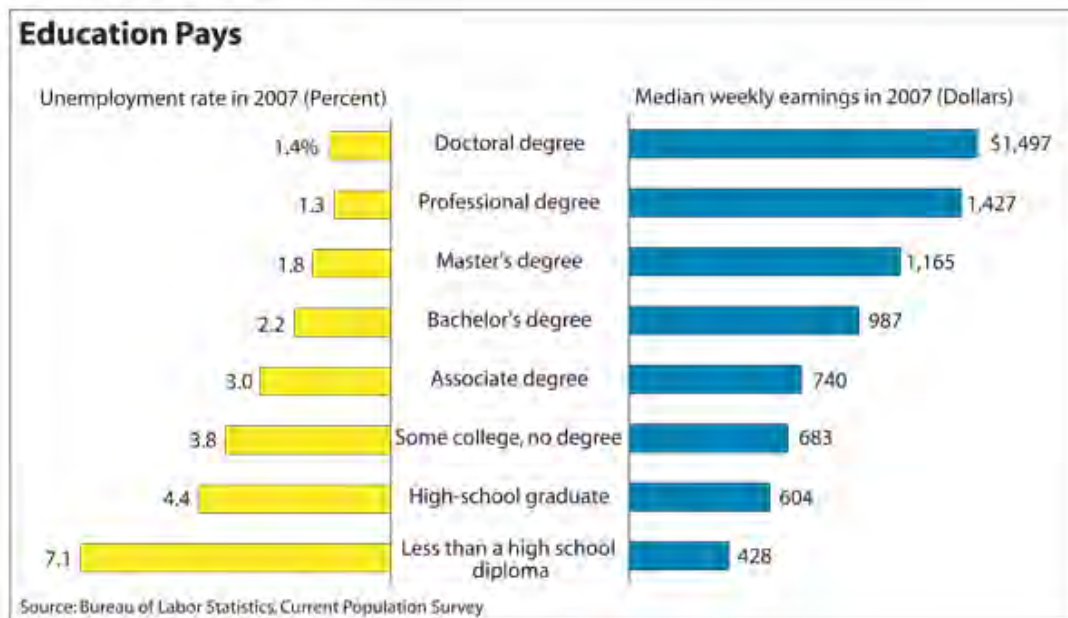
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CHAPTER 1

INTRODUCTION

Postsecondary education is critical for high school students, affecting their ability to contribute to and compete in the modern economy. The Bureau of Labor Statistics has estimated that **80%** of the fastest-growing jobs in the United States require some sort of higher education.

(<http://www.whitehouse.gov/news/releases/2004/01/20040121.html>)



Unfortunately, a large percentage of young people are not receiving the postsecondary education they need to survive in this economy, with minority students especially at risk.

- **14.1%** of high school students do not complete high school.
(<http://nces.ed.gov/pubs2001/dropout/tables/table4.asp>)
- **34%** of all high school graduates do not transition to college in the fall after graduation.
(<http://nces.ed.gov/programs/coe/2008/section3/table.asp?tableID=902>)
- **42%** of freshmen entering postsecondary two-year institutions require remedial education.
(http://nces.ed.gov/surveys/pegis/inc/displaytables_inc.asp)

- **48%** of students under age 20 entering two-year institutions fail to meet the COMPASS college readiness benchmark in Writing Skills of 69.
(http://www.act.org/compass/pdf/F04_Nat2yr_under20.pdf)
- **66%** of students under age 20 entering two-year institutions fail to meet the COMPASS college readiness benchmark in Reading of 88.
(http://www.act.org/compass/pdf/F04_Nat2yr_under20.pdf)
- **91%** of students under age 20 entering two-year institutions fail to meet the COMPASS college readiness benchmark in Mathematics of 65.
(http://www.act.org/compass/pdf/F04_Nat2yr_under20.pdf)
- **53%** of the freshmen entering two-year institutions spend one year taking remedial courses.
(http://nces.ed.gov/surveys/pegis/inc/displaytables_inc.asp)
- **Up to 70%** of students in remedial programs fail to complete a degree.
(http://nces.ed.gov/programs/coe/2004/pdf/18_2004.pdf)

The reasons why so many students don't proceed on to postsecondary education are numerous and complex. Students may not be aware of the importance of postsecondary education to their career options. They may have a mistaken impression that they aren't eligible. They may think college isn't financially feasible. Or, they may just be intimidated by the whole college registration process.

Help More Students Transition from High School to College

Community and technical colleges have the opportunity to help more students overcome these barriers and successfully make the transition from high school to college through high school outreach programs.

There are three main types of high school outreach programs, each with an emphasis on the needs of students at different stages of their high school careers. For the purposes of this guide, we will refer to these types/stages as:

- **Early Intervention** (late sophomores, juniors)
- **Dual Enrollment** (late juniors, early seniors)
- **College Transition** (late seniors)

Under all three scenarios, the features and flexibility of the COMPASS system can play a key role in ensuring the success of these types of programs.

This guide has been developed by ACT to serve as a practical reference to colleges that wish to implement high school outreach programs. This free publication is available as a PDF download from the COMPASS website. If you would like additional information about the best ways to implement a high school outreach program, an ACT representative from one of our regional offices would be happy to work with you. To locate the ACT Regional Office that serves your state, please go to <http://www.act.org/contacts/field.html>.

CHAPTER 2

BENEFITS OF HIGH SCHOOL OUTREACH

High school outreach is the generic term for programs in which community or technical colleges collaborate with their local feeder high schools to help more students explore and plan their transition from high school to college.

Benefits to Students

The direct benefits of an outreach program to high school students include:

- **Clarify Career and Educational Goals** – Many high school students have not actively considered their career options or the educational qualifications required to pursue those options. High school outreach programs frequently include “success planning seminars” that cover these topics.
- **Access and Admission Assistance** – High school students who haven’t actively planned for postsecondary education frequently aren’t aware of how accessible and affordable it is. High school outreach programs fill this gap, in some cases even providing graduating high school seniors with letters of admission to their local community college. Seminars are held to help students with the application process. They usually include orientation sessions so the high school students get firsthand understanding of the college campus and undergraduate experience.
- **Academic Advising Assistance** – High school outreach programs assess students’ skill levels and advise them what resources they should use and what courses they should take while they are still in high school to become college-ready. This helps underprepared students avoid the need for developmental courses once they’ve enrolled in college. Similarly, high school outreach programs can be used to evaluate student eligibility for dual enrollment programs. When targeting high school seniors, assessment results are used to advise students which courses to register for when they enroll in college.
- **Registration Assistance** – Registration can be an intimidating experience for first-time students. An integral component of high school outreach programs is to walk them through the registration process. Some programs give high school students preferential registration to ensure they are able to take the courses they really need during their critical first semester.
- **Support Services** – New students frequently need help, especially during their first semester. High school outreach programs should introduce

prospective new students to the academic support services available to them on campus.

- **Reduce the Need for Postsecondary Developmental Coursework** – When students are better prepared for college coursework, they can avoid developmental courses, which cost extra time and money. Developmental courses are not credit bearing, and they cannot transfer to other institutions. Additionally, developmental courses are not covered by financial aid.

Benefits to High Schools

- **Increase College-Going Rate** - By partnering up with area colleges, high schools can leverage their limited resources and provide more accurate and timely information to help more students transition to college.
- **Closer Relations with Area Colleges** – Close cooperation between high schools and local colleges is a natural outcome of high school outreach programs. Closer cooperation means better services for students, greater efficiency in operations, and the avoidance of redundant efforts and expenses.
- **High School Counselor Support** – High school counselors will have direct communications with their local community college through a high school outreach program. This access will result in better information and access to support materials students need.
- **Increase Student Motivation** – With firsthand exposure to the opportunities presented by the local community college, high school students will be more focused on their learning objectives and motivated to do well in their studies.
- **Encourage Parental Involvement** – Assist parents in knowing more about the college-going process and the next steps for their son or daughter.

Benefits to Colleges

- **Increase Student Readiness** – Developmental courses are a burden on resources and time for colleges as well as students. A high school outreach program results in students becoming better prepared before they even arrive on campus.
- **Increase Student Enrollment** – Most of the high school graduates who do not advance to postsecondary education perhaps are not aware of the opportunity, or they mistakenly believe they are not qualified. High school outreach programs can have a major impact in both areas and can help colleges build strong relationships with students in their feeder high schools.

- **Increase Student Retention** – High school outreach programs typically result in more students who are better prepared for college-level work. They also result in students being placed in courses appropriate to their skill levels. Better prepared students placed in appropriate courses can have a profound impact on student persistence.
- **Increase Campus Diversity** – Minorities and at risk students frequently are targeted in high school outreach programs. Helping these students prepare for and transition to postsecondary education helps colleges meet their diversity goals.
- **Better Resource Management** – Colleges can spread their recruitment and orientation efforts over longer time periods through high school outreach programs.

CHAPTER 3

MODELS FOR HIGH SCHOOL OUTREACH

For a high school outreach program to be effective and successful, you must determine your primary objectives at the beginning of the process and design the program accordingly. In this guide, we will explore three general approaches: Early Intervention, Dual Enrollment, and College Transition. The needs of your college may vary, and you will need to adjust your planning process to meet the outreach objectives of your institution.

Early Intervention

Early intervention high school outreach programs help promote college readiness while there is still time for students to affect a change. Early intervention programs target late tenth graders and/or early eleventh graders to encourage those who are progressing well and provide additional guidance to those who may be under prepared. The goals are to help these students determine if they are developing the core skills they will need to be successful in college and recommend appropriate interventions if they are not.

Early intervention high school outreach programs typically include the following components:

- a. Career Exploration – Information and activities to inform students about the career options available to them. These can include counseling sessions, seminars at the high schools, distribution of career literature, and interest inventories that match students' interests with various careers. Career exploration activities frequently include parents as well as students, and parents are encouraged to take an active role in their children's education and career decisions.
- b. Educational Requirements – Once students have a better idea about career possibilities, college advisors and/or high school counselors inform them about the educational requirements for the careers in which they are interested. Want to be a forensic pathologist? Better start studying science and math! Advisors will inform the students what types of courses they should take while in high school and what the requirements will be once they enroll in college.
- c. Basic Skills Assessment – Tests are given in the high school to determine if students are on track to fulfill the educational requirements of their chosen careers. Institutions may use students' PLAN[®] or ACT[®] test scores to identify at-risk students. Alternatively, they may use COMPASS to identify current

skill levels in Reading, Writing, and Math, and their readiness for various college-level courses. For a more detailed evaluation of student skill levels, many institutions will use COMPASS diagnostic tests to better identify specific skill areas in which students may need more help.

- d. Educational Interventions – If students are not on track, there is still time to prescribe developmental interventions while the students are still in high school. Interventions may include taking appropriate courses, supplemental education, tutoring, or simply accessing online learning solutions.
- e. Post-testing – This enables educators to evaluate the impact of the interventions and assures students that they are college-ready. In all cases, the college conducting the early intervention high school outreach program needs to have standard policies, procedures, and materials that can be used consistently in all their feeder high schools.

Dual Enrollment

Dual enrollment high school outreach programs are typically administered to students entering eleventh or twelfth grade to determine if they are qualified to be placed in credit-bearing college courses while still enrolled in high school. Dual-enrollment programs allow well-prepared students to get a jump start on their college education, saving a substantial amount of time and money.

Many programs are set up to include all students in a class, inviting those who qualify to consider dual enrollment courses and providing “next step” suggestions to students not qualifying for dual enrollment. Colleges in other locations work with counselors in their feeder high schools to identify appropriate candidates who can participate in the program. Grade Point Average, PLAN and/or ACT scores can be used for this purpose. Students will also take a COMPASS placement test to confirm they have the same core skills as traditional students, thereby confirming they can meet the prerequisites for entry into a college-level course. The college’s standard cutoff scores are used to determine eligibility for enrollment, with placement messages customized for each high school. Students not qualifying for the dual enrollment course(s) are assisted in the development of a plan that can help them address their needs for additional preparation while still in high school.

Dual enrollment courses may be taught either in the high school or at the community college. If there are sufficient numbers of students, the college and high school may make arrangements to have the course taught in the high school during regular school hours. In some programs, the high school students will attend regular classes on the college campus. One advantage of this approach is that it familiarizes high school students with the college experience and facilitates a seamless transition into college upon graduation.

Upon successful completion of the course, the student will receive credit both on his or her high school and college transcripts. Some school districts and states work out arrangements to pay the community college and offer the courses to their high school students for free. In other cases, the high school students will pay the same tuition as traditional students.

College Transition

College transition high school outreach programs target high school seniors in the spring of their senior year and are intended to make the transition from high school to college as easy as possible. Depending on how extensive they are, college transition high school outreach programs may span the entire course of the students' senior year, but typically the activities are concentrated in the spring semester as the students approach graduation.

Activities associated with a college transition high school outreach program take place in the high school and on the college campus. Close collaboration between the college and high school personnel is critical for the program to succeed. Activities you may wish to incorporate into your college transition high school outreach program include:

- a. Career Fairs – Local employers present information on the types of jobs they offer, and what types of postsecondary education qualifications students will need to pursue them.
- b. College Introduction – This includes making available brochures, workshops, and/or in-class presentations on the opportunities available at the local community college. This may be done by college representatives or by high school advisors who have been trained and supported by the college. Student ambassadors also may be employed to help the high school students better relate to the information. These should convey critical information on subjects such as the importance of postsecondary education to the attainment of career objectives, courses of study available at the college, college life, tuition and financial aid, admission and registration procedures, and student academic support services. The key point to make is that postsecondary education is accessible and affordable to all students through the local community college.
- c. Basic Skills Assessments – Use these to determine which courses students should be placed into to optimize their chances of completing them successfully. The same cut scores should be used as those of traditional students who take their placement tests on campus, but placement messages should be customized to address the concerns unique to high school seniors. Placement messages include what courses they should take, how to register,

and how to access campus learning support resources. The assessments may be administered at the high school (e.g., in the computer lab) or on-campus during college visits. The advantage of administering tests in the high school is students will have less anxiety and distractions, and their scores will be more reflective of their actual abilities. If students' test results fall beneath the standard cutoff scores, colleges will often administer diagnostic tests to pinpoint the areas in which students need additional instruction. Colleges may advise borderline students that they will be required to take developmental courses at the college, or suggest how they may brush up their skills over the summer and take the placement test again in the fall before registration.

- d. Academic Advising – College advisors, or high school counselors who have been trained by the college, should review students' career goals, basic skills assessment results, and advise students as to what their next steps should be in terms of procedures for college application, course selection and registration, financial aid applications, and other campus instructional and support services.
- e. Campus Tours – College transition high school outreach programs may include field day visits to the college campus. This allows college admissions personnel the opportunity to introduce the college to large numbers of high school seniors and provide them a firsthand look at the college experience. Colleges that don't assess students' basic skills in high schools may do so at the college testing center during these tours. Alternatively, they may wait and test students during orientation with the understanding that students may be highly preoccupied during orientation, which may affect their test results.
- f. Admission Application – Open enrollment colleges may include a letter of admission with the students' basic skills assessment results, even for students who will need to take developmental courses. The key is to let them know the opportunity is available to them if they wish to pursue it. Alternatively, colleges may still wish to have students go through the regular application process and provide them with the necessary forms and instructions. It is critical to include financial aid information at this time. Doing this while the students are still enrolled in high school provides high school counselors the opportunity to assist with the process.
- g. Orientation – Frequently, colleges will invite high school students who have been admitted to attend a full-day orientation on campus. This allows them to experience the college environment in a structured, supportive manner, have their questions answered, and reduce any anxieties they may have about attending the college. High school students often complete their registration during orientation.

- h. Registration – Colleges may allow high school students participating in a high school outreach program to register early for the courses they need. The goal is to make their first registration experience as painless and successful as possible and give them priority access to the courses they need during their critical first semester.

As with other types of high school outreach programs, thorough planning and standardization of procedures is critical to the success of the program.

CHAPTER 4

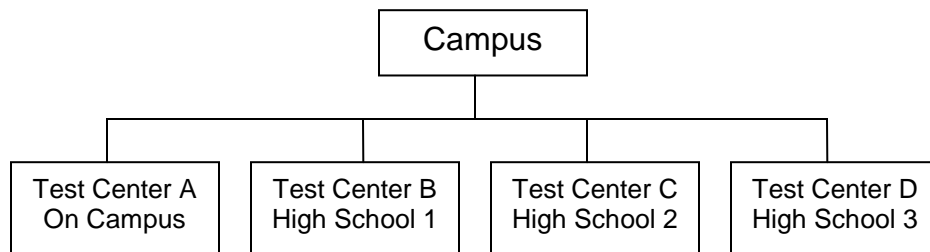
ENHANCING HIGH SCHOOL OUTREACH PROGRAMS WITH COMPASS

Establish Test Centers Directly in High Schools

COMPASS allows you to easily establish test centers directly in your feeder high schools, administer standardized test packages to all of your potential students, and run centralized reports of the results. The COMPASS software also allows you to customize the placement messages for each high school test center so they are more relevant to the particular needs of their students.

High School Test Center Setup

The procedure for setting up a high school test center is exactly the same as setting up a new test center on campus. The site hierarchy is:



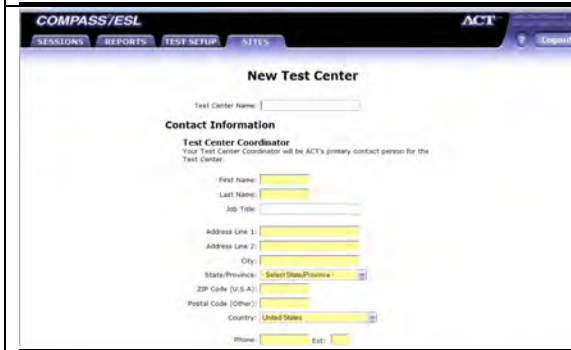
Because COMPASS is an Internet-based program, you are able to set up individual test centers for on-campus testing and for each individual high school in your high school outreach program. This makes it easy to keep the data from each high school separate from the data for your regular on-campus students. This process also allows you to prepare and deliver placement messages that are customized to include the specific resources (and their locations) available for students in each high school.

Most colleges simply use the high school computer lab as their COMPASS testing center, which works well as long as testing schedules are well coordinated and proper security and proctor arrangements can be made.

Before you set up a test center in a high school, you will need to collect information on the high school test center coordinator, technical support coordinator, the test center status, number of copies of Standard Individual Reports, and SSR location. Once you have this information, the process to register a test center is straightforward.



Go to the “Sites” tab and click “New Test Center.”



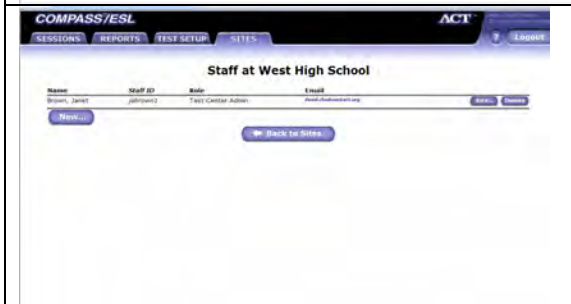
Fill in the fields in the “New Test Center” page. You will need to have the contact information for the “Test Center Coordinator” and the “Technical Support Coordinator” on hand before you fill in the fields. You may also specify how many SRIs to print and where SSRs should be stored.

This process must be repeated for every high school test center included in your institution’s high school outreach program.

If you are the campus level administrator, you should always register yourself as a staff member at each high school test center and grant yourself full administrative rights. This will allow you to login at the test center level if you should desire to do so.



In the “Sites” tab, click on the “Staff” button.



Click “New.”



As you fill in the fields, **DO NOT** use your real name – use an alias that is easy to remember and can be associated with that high school test center. **DO** use your real e-mail address so you can receive the e-mail notification with your user name and password for that high school test center. Be sure to keep a record of all your user names and passwords for each high school test center. **DO** grant yourself full administrative rights. Click “OK” when finished.

Tests will be administered at the high school test center level. Usually the high school Test Center Coordinator will administer the tests. Be sure the Test Center Coordinator saves his or her user name and password which they will receive via e-mail when you register them. You may want to restrict the Test Center Coordinator (or other test center staff) to proctor rights only.



On the “Sites” tab, click the “Staff” button next to the selected high school test center.



The test center coordinator’s name will appear. Click “edit.”



The next screen will contain the test site coordinator’s information. Simply click the “Proctor” button, and the coordinator will only have rights to launch tests, edit his or her own account info, view and print student records, edit student records, create SSRs, and schedule remote tests. You may want to disable some of these functions as well, and only allow them to launch tests and view and print student records.

Workstation Installation (at the high school)

Once the high school test center has been set up in the COMPASS software, you will need to install the COMPASS program in each of the workstations in the high school test centers.


Workstation setup must be done in conjunction with the high school test administrator and the high school technical staff. Complete workstation installation instructions are provided in Appendix 1.

Once the workstations have been set up, it is important to train the high school test administrator how to launch and proctor your COMPASS High School Outreach test package. Basic instructions for launching and proctoring tests are provided in Appendix 2.

Create Standard Test Packages for High School Test Centers

Most colleges create standardized test packages for all of their feeder high school test centers. This can be done at the college, and allows a greater degree of control and consistency in terms of evaluation of students' skill levels, determination of cutoff scores, and issuance of placement/diagnostic messages. Typically, the test packages will cover basic skills in Reading, Math (Algebra), and Writing skills. You can simply adapt a standard test package that is pre-loaded in the COMPASS software as the starting point, and then create standard bulletin boards and placement messages appropriate for your college.

To create standard test packages for all high school test centers, you must be logged in as the campus level administrator.

	<p>In the "Test Setup" tab, select "Test Package."</p>
---	--



To the right of the “Test Packages for” heading, select the campus level institution, which will be listed first in the drop down menu. Then click the “Go” button to the right.



In the “Test Package for” page, select “COMPASS Reading, Writing Skills, and Math Placement Test Only” from the list of test packages that come pre-loaded in the COMPASS software, then click “Duplicate.”



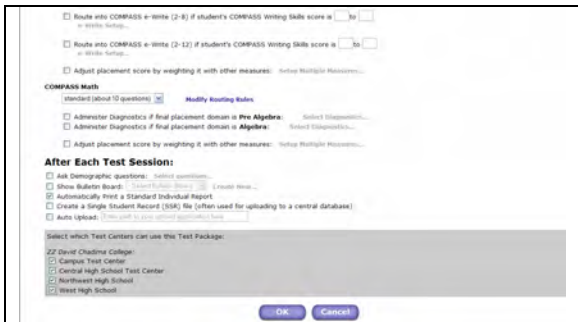

The “New Test Package” page will open. Confirm which content areas you wish to include and click “Continue.”



Confirm the order of the tests.



Give the new test package a descriptive name, e.g., “Central Community College High School Outreach Test,” and set the parameters of the test. If you would like to administer this test at all high school test sites, be sure to select all of the test sites at the bottom of the page. When finished, click “OK.”


	<p>To administer this test at all high school test sites, be sure to select all of the test sites at the bottom of the page. When finished, click "OK."</p>
	<p>The COMPASS software will take you back to the "Test Packages" page, and the new test package will be listed in the dropdown menu. If you wish to make any additional changes, just click "Edit."</p> <p>When the high school Test Center Coordinator launches a test at a work station in the high school test center, the standardized test will appear on the list of tests. They simply select the test and click "Go."</p>





Create Standard Data Used by Test Packages

Once the standard test package has been set up, you will need to create standard "Data Used by Test Packages," which can include Bulletin Boards, Majors and Major Groups, Local Demographic Items, Campus Resources, Transfer Institutions, and High Schools)

The procedure is the same as creating regular "Data Used by Test Packages," but you must be sure to specify the data is to be used at the campus level, not at the high school test center level.

In this example we will create a standard bulletin board, but the process is the same for all data. To create standard bulletin boards for all high school test centers, you must be logged in as the campus level administrator. Before getting started, you need to create the standard bulletin board text, and save it as an HTML file in a location you can easily navigate to.

	<p>On the "Test Setup" page, click on "Bulletin Boards."</p>
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	<p>In the drop-down menu to the right of the “Bulletin Boards for” heading, select the campus level institution, which will be listed first in the drop down menu, then click the “Go” button to the right.</p>
	<p>Click “New.”</p>
	<p>Give the standard bulletin board a descriptive name. Navigate to the file where you previously saved the HTML file with the bulletin board message, then click “OK.”</p>
	<p>The new bulletin board will now appear on the “Bulletin Boards for” page. You may specify which test sites may see this bulletin board.</p>


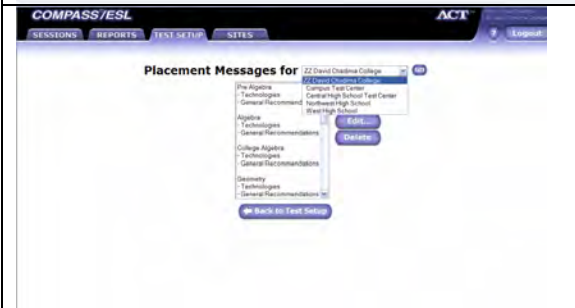

Create Standard Placement Messages

Standard placement messages will appear on all Standard Individual Reports. The COMPASS software comes pre-loaded with sample placement and diagnostic messages and cutoff scores. You must edit these scores and statements so they align with the cutoff scores and placement messages of your high school outreach program.

Placement messages are designed for specified score ranges on each test. The cutoff scores that determine these ranges must be agreed upon with your faculty and are adjusted over time. Please refer to the *COMPASS Guide to Effective Student Placement and Retention in Mathematics* or the *COMPASS Guide to Effective Student Placement and Retention in Language Arts* for additional information on setting cutoff scores. Both of these publications can be found in PDF format at <http://www.act.org/compass/resources.html>.

Once you have determined cutoff scores and what text you want to include in the placement messages, the procedure for setting standardized placement messages is straightforward.

To create standard placement messages for all high school test centers, you must be logged in as the campus level administrator.

	<p>On the “Test Setup” tab, select “Placement Messages.”</p>
	<p>In the drop-down menu to the right of the “Placement Messages for” heading, select the campus level institution, which will be listed first in the drop down menu, then click the “Go” button to the right.</p>
	<p>You will need to have score ranges and placement messages for each of the subject areas you wish to include in your High School Outreach tests. Select a test, and click “Edit.”</p>



On the Edit Placement Messages page, you will set your score ranges and fill in the placement messages. Typically, High School Outreach placement messages will include information such as:

- Whether the student is qualified to take a credit-bearing course or a remedial course
- How to register for the recommended course
- What support services are available
- Next steps

When finished, click “OK.”

The procedures for establishing standardized diagnostic messages and local measures are the same, the key thing is to specify they are for the campus level.

When the test administrators at the high school test centers launch a COMPASS test, they can simply select the standardized test, and the student can begin testing.

Create Customized Test Packages for Specific High School Test Centers

The standardized bulletin boards and placement messages described in the previous section can be customized to reflect the needs of a particular high school test center. The advantage of customizing these messages is the ability to make references to specifics unique to an individual high school – e.g., the name of the high school in the opening bulletin board, the location of support resources in that high school, the name of the counselor in that high school, etc.

The procedure for creating a customized test package is virtually the same that for creating a standardized test package. The key difference is you will need to specify the test center where the customized test package will be used



To the right of the “Test Packages for” heading, select the test center level institution, which will be listed below the campus level institution in the drop down menu. After selecting the appropriate high school test center, click the “Go” button to the right.

Be sure to create a unique name for each high school test center’s test package. To avoid confusion, it is a good idea to incorporate the name of each high school

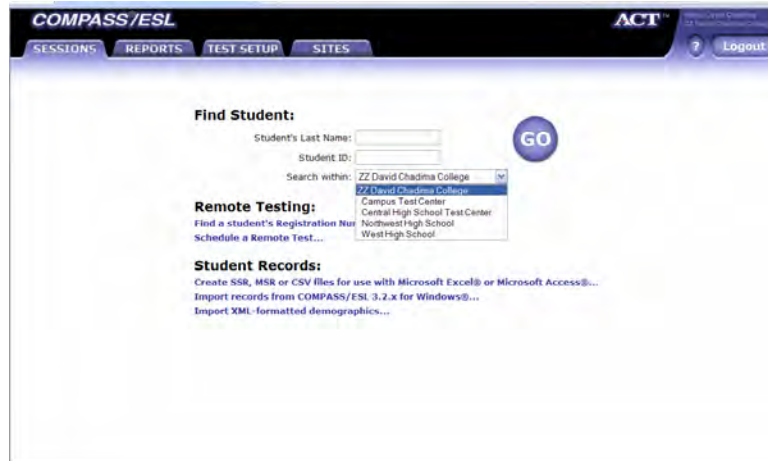
test center into the name of the test package for that school, e.g. “West High School HSO Test.”

In addition to the test package, you will also need to customize the “Data Used by Test Packages,” “Placement Messages,” “Diagnostic Messages,” and “Local Measures” following the same procedures as outlined above. Once again, be sure to specify the test center where the customized data or messages are to be used, and use the “Duplicate” or “New” function to create the customized data and messages, and give them names that are unique to each high school test center.

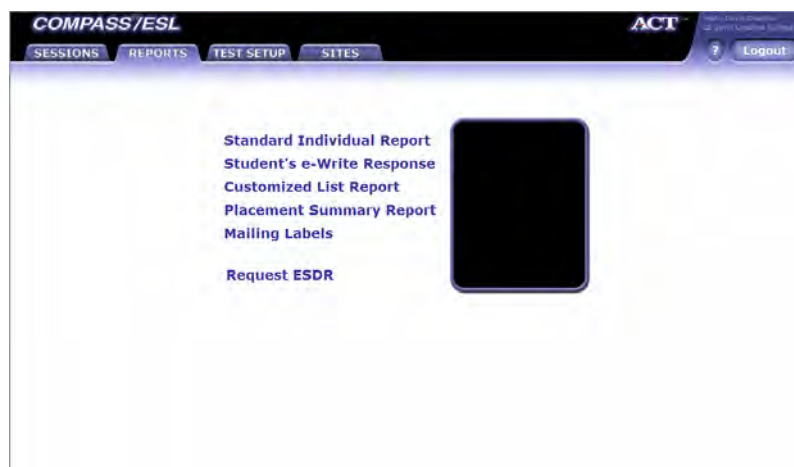
An alternative way to customize bulletin boards and/or placement messages is to log out as the campus level administrator, and then log in as the high school test center level administrator with full administrative rights to modify test packages, data or messages. (See Page 16)

Centralized Reporting

The results for all students, regardless of which test center at which they tested, are available at the campus level search. To find the test results for an individual student, use the “Sessions” tab. You may limit the search to a specific test center by selecting the institution from the “Search within” drop down menu.



The results for groups of students sorted by various criteria are available through the “Customized List Report” function on the “Reports” tab. You can run a report on the results of all students tested in all high school test centers, or you can specify only the results from one particular high school test center.



For a detailed demonstration how to run a Customized List Report, visit <http://www.act.org/compass/tutorial/listreportinternet.html>

Identify At-risk Students

A primary goal of early intervention high school outreach programs is to identify students who are not on track to being college ready and prescribing appropriate interventions.

An efficient way to achieve this is to compare the high school students' PLAN, ACT, or COMPASS scores with the ACT College Readiness Benchmarks. Students whose scores fall below the benchmarks are good candidates for developmental interventions to help them become college ready.

ACT's College Readiness Benchmarks are the minimum ACT test scores required for students to have a high probability of success in credit-bearing college courses—English Composition, social sciences courses, College Algebra, or Biology.

College Readiness Benchmarks				
Subject Area	EXPLORE	PLAN	ACT	COMPASS
English / Writing Skills	13	15	18	69
Reading	15	17	21	88
Math	17	19	22	65

For more information about the ACT College Readiness Benchmarks, please reference "What Are ACT's College Readiness Benchmarks" which can be downloaded at: <http://www.act.org/research/policymakers/pdf/benchmarks.pdf>

Pinpoint Students' Developmental Needs with Diagnostics

If a student scores below a college readiness benchmark, the COMPASS Diagnostics Tests may be used as part of a High School Outreach program to pinpoint specific areas for additional work. Testing personnel may develop independent diagnostic test packages to administer to students with PLAN or ACT scores. Alternatively, if COMPASS placement tests are being used to evaluate student readiness, testing personnel can construct COMPASS test packages so that students who are scoring below a specified cutoff score will be routed directly into the diagnostic tests, eliminating the need for retesting.

The COMPASS program includes the following diagnostic tests:




COMPASS Diagnostics Tests Subject Areas			
Reading	Math (Pre-algebra)	Math (Algebra)	Writing Skills
<ul style="list-style-type: none"> • Reading Comprehension • Vocabulary • Reader Profile 	<ul style="list-style-type: none"> • Integers • Decimals • Exponents, Square Roots, and Scientific Notation • Fractions • Percentages • Averages (Means, Medians, and Modes) 	<ul style="list-style-type: none"> • Substituting Values • Setting Up Equations • Factoring Polynomials • Exponents and Radicals • Basic Operations / Polynomials • Linear Equations / One Variable • Linear Equations / Two Variables • Rational Expressions 	<ul style="list-style-type: none"> • Punctuation • Spelling • Capitalization • Usage • Verb Formation / Agreement • Relationships of Clauses • Shifts in Construction • Organization

Colleges can easily align these content areas with either home grown or standardized instructional software programs, e.g., PLATO courseware. Typically, the diagnostic test for each subject area will include approximately ten questions, so testing personnel should be careful not to create test packages that are too lengthy.

Reduce Test Times with Automated Routing Rules

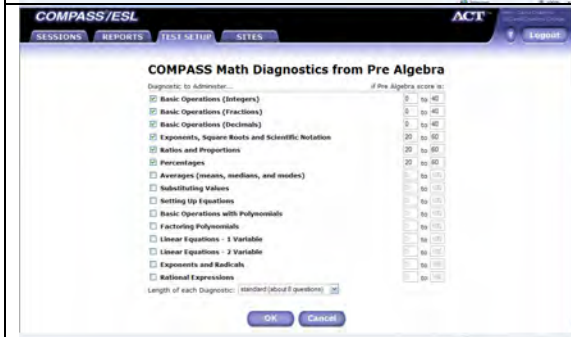
The COMPASS software allows colleges to establish campus-specific placement scores and route borderline students from Placement Tests directly into Diagnostic Tests. This eliminates the need for retesting at a later date and helps identify the specific areas in which borderline high school students need developmental help before they get to college.

The procedure to route students from Placement Tests into Diagnostic Tests is straight forward.

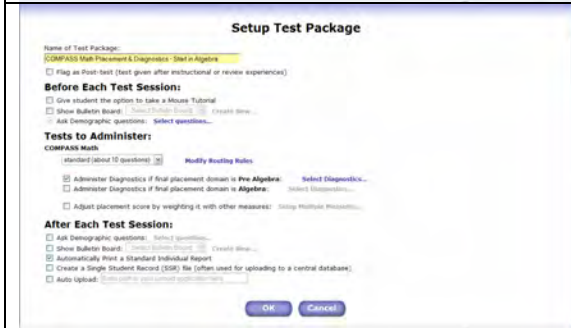
	<p>To create a test package that routes students directly into diagnostics, select “Test Packages” under the “Test Setup” tab.</p>
	<p>Select the placement test package in which you'd like to include diagnostics and click the “Duplicate” button.</p>
	<p>The “New Test Package” screen will appear. Click “Continue.”</p>



The “Setup Test Package” screen will appear. Rename the test package to include diagnostics. Then check the box next to the “Administer Diagnostics” line if final placement domain is Pre-Algebra. Then click “Select Diagnostics.”



The next screen will allow you to select which diagnostic tests to administer and the pre-algebra cutoff scores. Once you have made your selections, click “OK.”



The software will take you back to the Setup Test Package. Click “OK.”



The new test package with diagnostics will now appear in your list of test packages.

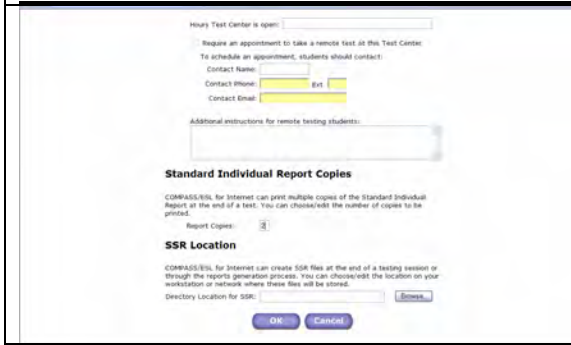
Instant Reporting for Outreach and/or Orientation Programs

A key advantage of using COMPASS in High School Outreach programs is that test results are available immediately upon completion of testing. This allows the high school students, college advisors, and/or high school counselors to begin planning for the students’ academic success during the outreach and/or orientation program while the need is most acute.

Once a high school has been set up as a testing center, the procedure to specify the number of Standard Individual Reports to print out at the high school immediately upon completion of testing just takes a few clicks of the mouse.



Go to the “Sites” tab, select the high school test center, and click “Edit.”



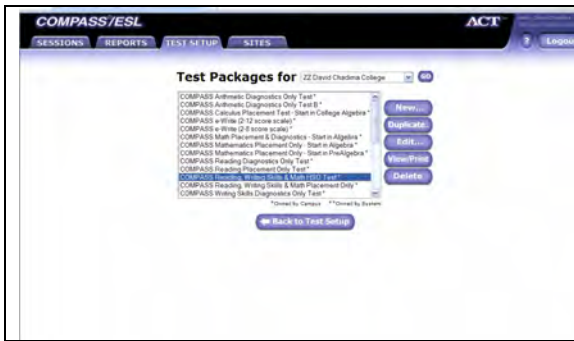
On the “Test Center” page, scroll down to the bottom of the page. Under the “Standard Individual Report” heading, simply type in the number of copies you’d like to have printed. Most High School Outreach programs will print two copies, one for the student and one for the advisor or counselor.

Post-test to Confirm Student Readiness

Many High School Outreach programs, especially Early Intervention programs that use COMPASS diagnostics, need to post-test their students to evaluate the effectiveness of the developmental intervention and confirm student readiness for college. With COMPASS, post-testing is both convenient and affordable, with post-tests costing only half a unit when a student has previously completed the particular test.



On the “Test Setup” page, select “Test Packages.”



Select the test package for which you'd like to post-test students and click "Edit."



Modify the title of the test package to include "Post-Test." Check the "Flag as Post Test" box at the top of the page and the high school test sites that will be post-testing at the bottom of the page, then click "OK."

ASSET – Paper-and-Pencil Alternative

ASSET offers the ASSET Placement Test as a paper-and-pencil alternative to COMPASS. This is a convenient option for colleges that wish to set up their high school outreach programs in a way that allows them to test large numbers of students at a single sitting (e.g. in the high school auditorium). To learn more about ASSET, please link to <http://www.act.org/asset>.

APPENDIX 1 – High School Outreach Workstation Setup

Initial setup of each workstation to be used for testing; includes configuration of Internet settings, permissions, download of a secure browser and file of test items to each testing workstation.

The workstation setup process must be completed for each computer that will be used to administer tests and requires that the operator have power U\user or administrator rights on that computer when doing the initial workstation setup process. This is to provide maximum campus system protection and security for the testing process.

First examine the Technical Specifications, Technical Checklist, and XP SP2 Instructions. Links to this information are found at:
<http://www.act.org/compass/tech/index.html>

To begin the process of setting up the workstations, you will need a staff ID and password created by the campus administrator and sent to you through an e-mail. Go to the URL provided in the e-mail and, after typing your login, select the “Workstation Setup” button. You will have an option to alter your initial password and create an alternative login question. Please make a note of your new login and question.

The COMPASS Test Launcher icon is created by the COMPASS system on the desktop of each workstation when the secure browser and test items are applied to the workstation.

Four Options for Accomplishing the Initial Workstation Setup Process:

The workstation setup places a secure browser on that workstation for use during the testing process (prevents students from “jumping” out of the COMPASS Internet system, to other Internet sites, or other parts of the campus computer system while they are testing). The process also places a copy of the (encrypted) test items onto the workstation to avoid unnecessary traffic over the Internet when the system is ready to access a next test item for the individual.

Options for Initial Workstation Setup Process:

Option A: One Workstation at a Time: Download of the secure browser and test files via the Internet to the individual workstation, this may require 5-20 minutes or so for a workstation, depending on local bandwidth and traffic loads; suggest early morning, late afternoon, etc. to avoid peak Internet use times, or use one of the options below.

Option B: Distribute from Server to All Workstations on a Network: Download the secure browser and the test files to a campus server (following Steps 1-4 below).

Then distribute the secure browser and the test files to the workstations supported by that server. Finally, go to each workstation and complete Steps 1-4 below (register the MAC address in Step 1 and select “Do not download anything” in Step 3).

Option C: Distribute through the Use of “Ghosting” Application: Download the secure browser and the test files via the internet to the PC you are planning to ghost from (following Steps 1-4 below). Then ghost the remaining PCs. Finally, go to each workstation and complete Steps 1, 3, and 4 below (register the MAC address in Step 1 and select “Do not download anything” in Step 3).

NOTE: When “ghosting,” it is necessary to register the MAC address on each individual machine after ghosting is completed for testing to work properly.

Option D: Burn a CD and Use It to Prepare Each Workstation: (this is especially beneficial for Outreach center installation.) Download the files to a campus server. Then burn a CD containing the secure browser and test files. Use the CD to copy the secure browser and test files to each individual workstation. Finally, go to each workstation and complete Steps 1, 3, and 4 above (register the MAC address in Step 1 and select “Do not download anything” in Step 3).

The Four Step Workstation Setup Process:

The workstation setup process must be done for each computer to be used for testing. It includes a built-in MAC registration procedure. (NOTE: if you are using a laptop, the Workstation Setup process must be done when the laptop is NOT in a docking station). Via the Internet, this procedure puts the “locked down” browser and the test items onto the workstation. (download requires 5-20 minutes or so, depending on the speed of the Internet connection.).

The workstation setup process includes four steps which accomplish the following required tasks:

Step 1. Registers the MAC address of the specific workstation (automatically extracts this information from within the workstation; no need for staff to locate this information manually) to establish it as an eligible part of the COMPASS Internet system.

Step 2. Allows you to download via the Internet any additional files that may be needed on that workstation; Java Virtual Machine required for e-Write use; Windows Media Player (if version 9.x or above is not already on the machine).

Step 3. Allows you to select which COMPASS test files you want to download to the particular workstation, offering the following three choices:

download the Test Launcher and the COMPASS Placement, Diagnostic, and e-Write test files (**without the ESL test files**; about 50 MB);

download the Test Launcher and all test files, including the ESL files (about 80 MB; **this option is required if you wish to administer the ESL tests on the particular workstation**);

do not download anything (use this option if you have already downloaded the workstation setup file, using either Option B, Option C, or Option D above, or if you are “un-registering” this workstation).

Step 4. When you click “OK” any registration changes you have requested will take place immediately. In addition, any files you have selected in Step 3 will begin to download (this process typically can require from 5 to 20 minutes on each workstation, depending on the bandwidth and current traffic load on your Internet connection; suggest early morning or late afternoon to avoid peak Internet use times at your campus; or use Option B, Option C, or Option D above to speed the process of workstation setup).

When you have completed all four steps, a “COMPASS Test Launcher” icon will be added to the desktop for each workstation that has been set up and the workstations are ready for use by the Proctors for administering the COMPASS Test Packages of the institution.

Downloading the Test Launcher

You must go to the Workstation Setup page for every workstation, regardless of which option you choose.



Fig. 1, Workstation setup page, steps 1 & 2

1. On the Workstation Setup page, you must register your workstation before you can administer tests. Select the radio button next to *Register*.

Click **Get MAC Address**, which will automatically find and insert the workstation's MAC Address. This unique number is used to identify the computer workstation.

2. If your machine is not already equipped with Java Virtual Machine (used for e-Write tests) or Windows Media Player (used for administering ESL tests and online test instructions), you may download and install them from this page by clicking the link.



Fig. 2, Workstation setup page, steps 3 & 4

3. You will have the option to download the Test Launcher & COMPASS files, with or without the ESL files.

There are three options presented on the Workstation Setup page. You must select a radio button next to one of the following options:

- Test Launcher & COMPASS files
 - Test Launcher & COMPASS files, plus all ESL files
 - Do not download anything
- If you are setting up your first workstation and wish to save the downloaded files to a network and/or hard drive to install on each subsequent workstation, choose one of the download options with or without the optional ESL files.
 - If you do not plan to install from a network or CD and instead, wish to install the files from the workstation hard drive, choose one of the download options with or without the optional ESL files.
 - If you have already downloaded the Test Launcher & COMPASS files to your network, and/or have burned the files on a CD to install on other workstations, choose “Do not download anything.”
 - If you are unregistering your workstation, choose “Do not download anything.”

4. Once you have selected a download option, click “OK.”

When you are downloading the setup file, you must leave the computer on and connected to the Internet until the download is complete. Once the download is complete, return to the Login page.

Individual Workstation Setup Using Option B

1. To complete Workstation Setup, go to the workstation you would like to set up. Using Windows Explorer, find the location of the downloaded file, **COMPASSInternetVersion.exe** (whether it is on CD, hard drive, or network), and double-click on it to begin.

The .exe will open the InstallShield® Wizard, which will guide you through installing the necessary files to your workstation.

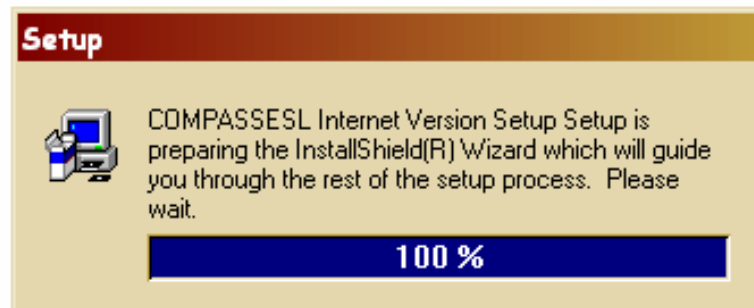


Fig. 3, InstallShield Setup

2. Once the Wizard is prepared, the Welcome page of the installation setup process will display. Read the information and click "Next."



Fig. 4, Installation Setup Welcome

3. The Choose Destination Location page will display. You may use the default location or select one of your own by clicking the "Browse" button.



Fig. 5, Choose Destination Location

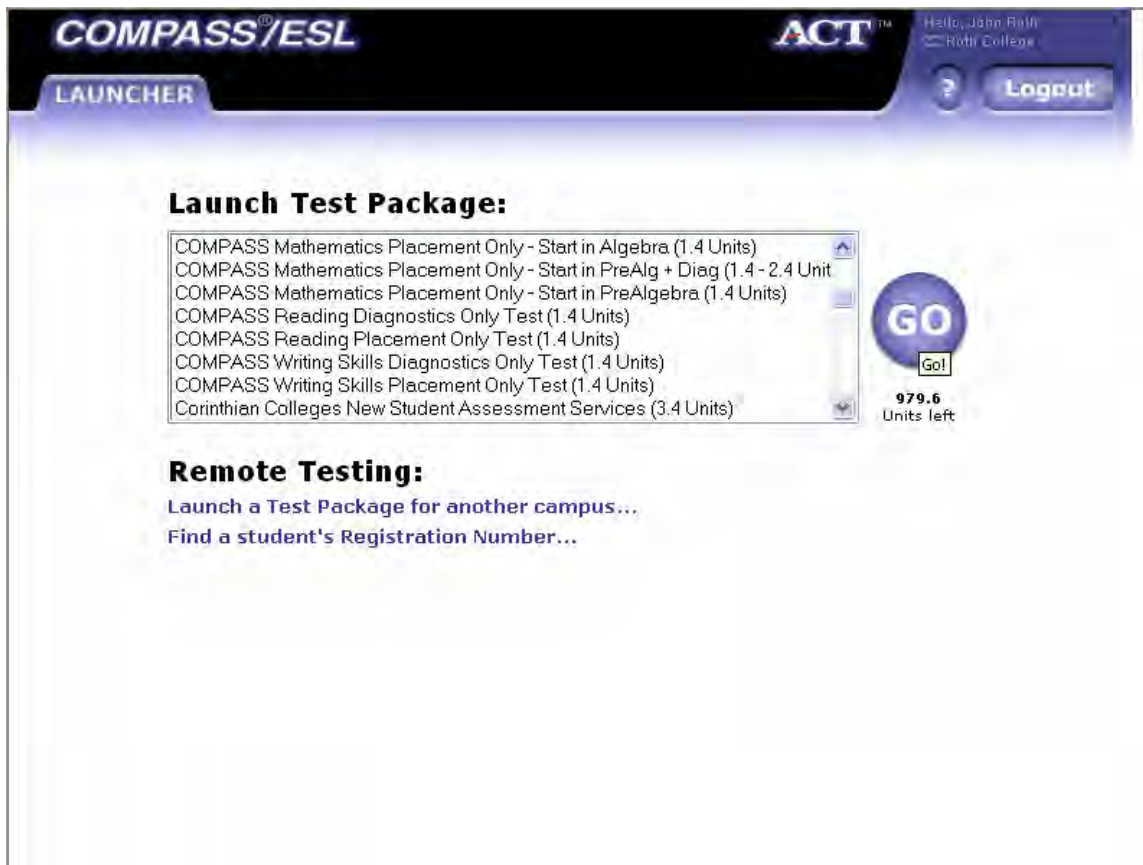
4. Once you have the Destination Folder set, click “Next” to begin the installation process. A progress bar will mark the status of the install process.
5. When the installation is finished, click “Finish” on the Setup Complete page.
6. Go through Steps 1-4 above to register the MAC address for the workstation (specify “Do not download anything” on Step 3).
7. Reboot your computer workstation.

APPENDIX 2 – Administering COMPASS Tests in High School Test Sites

When the workstation is to be used to administer the COMPASS test to an individual student, the process is started by clicking on the COMPASS Test Launcher icon on the desktop of that workstation. This is followed by the entry of the staff ID and password of an individual with rights assigned for the functions of administering the tests, (Monitor must be set to 880 x 600 before beginning testing.)



To administer a test, highlight a Test Package to administer in the upper window labeled “Launch Test Package,” and the system is then ready for the student to sit down and complete the Test Package selected.



At the conclusion of testing, a report will be printed at your printer (if your high school outreach partner college has activated that feature as part of building the particular Test Package), a “Stop” message will appear for a short time, and the system will then reset

itself to be ready to administer the same Test Package to the next student on that workstation.

To interrupt a Test Package during the testing process, or to jump out of the Test Launcher part of the system, use the “Control-Alt-Q” keys simultaneously.

NOTE: This approach is for staff use only, and this information must not be shared with students.

An “interrupted” student will be able to restart that particular Test Package at a later date at the spot where the testing process was interrupted. The student must be in the same Test Package, must sign in with the same last name and ID #, and must choose the “complete a previous test” option.

APPENDIX 3 – Sample High School Outreach Student Guide
(Reproduced with the permission of Parkland College, Champaign, IL)

UNDERSTANDING YOUR COMPASS SCORES

Why did I have to take this test?

Through the Department of Education’s Title III “Strengthening Institutions” grant, Parkland College is reaching out to high school juniors and assessing their skills in reading, writing, and math using ACT’s COMPASS test. The purpose of this assessment is to evaluate a student’s current skill levels and make recommendations that he or she can take into the senior year in order to make a smooth transition to college or career.

So how does that affect me right now as a junior in high school?

Taking the COMPASS test as a junior helps you to identify academic areas where you may need extra work in order to be college or career ready by the time you graduate from high school. If you identify these areas now, you and your counselor can develop a senior year schedule that best meets your academic needs.

If you decide to go on to a four-year or two-year college, you will

be assessed – regardless if you are seeking a degree or just wanting to take a few classes. The most common ways of assessing academic skill levels are:

- 1) high school transcript (used by some four-year schools)
- 2) ACT/SAT or other acceptable test score(s)
- 3) assessment tests in reading, writing, and math (most common method)

COMPASS is commonly used by institutions of higher learning, so your experience taking it now gives you an advantage when you take it again in the future.

If I go to a four-year school and not to a community college, this doesn’t apply to me, right?

Wrong. Assessment tests are used to determine skill levels at virtually every community college. However, the tests are becoming more and more prevalent at four-year schools, particularly in math.

What’s the difference between the ACT test and the COMPASS?

The ACT test evaluates the skills that students have already learned. It is administered before college admission and is used to determine whether a student has the skills necessary to have a reasonable chance of success in college. The COMPASS test is administered after admission and determines at what academic level a student should begin post-high school work.

There is no correlation between ACT test and COMPASS test scores, even though both exams are products of the same company.

What do I need to know about COMPASS?

COMPASS is an adaptive, computer-based college placement exam developed by ACT. The test changes for each student based on performance. If a student gets a question correct, they next receive a question of greater difficulty and higher value. If they get a question wrong, then they are presented with an easier question of lesser value. A student is placed into a course level where their skills will not be overwhelmed or underwhelmed.

Because COMPASS is adaptive, it is not possible to determine what questions you received and what questions you answered correctly or incorrectly.

You still have a lot to learn!

COMPASS was designed with the assumption that the examinee is a high school graduate with at least an overall C grade point average. Since you took the test as a junior, you cannot be expected to do as well as a recent high school graduate – particularly in math. You have more than a year of high school left, during which you will have the chance to learn many of the skills that you need in order to be college ready. Take advantage of this opportunity!

Will I be able to use my junior year COMPASS scores later on?

Your junior year COMPASS scores will not appear on your transcript or other permanent record, and they do not count toward the assessment requirement. The scores are also non-transferable to other institutions of higher education. Colleges need to see your academic abilities at the time of matriculation, not your abilities during your junior year. If you take on challenging work during your senior year, then your scores most likely will improve by the time that you assess for college.

Why such a big deal over being college ready?

Recent research has found that approximately 40% of high school graduates are not ready for the academic rigors of college or the professional demands of the workplace, as determined by professors, employers, and students themselves. Eight out of ten college freshmen surveyed also stated that, now knowing the demands of higher education, they would have applied themselves more in high school. Only 25% of employers polled said that a high school diploma was enough education to perform the jobs in their fields.¹

¹ Rising to the Challenge: Are High School Graduates Prepared for College and Work? A study by Achieve, Inc., a nonprofit, bipartisan organization created by the nation's governors and business leaders. Feb 2005. Specifically, the study surveyed 1487 recent high school graduates from the classes of 2002, 2003, and 2004 and found that of those in college: 42% are not prepared, according to professors; 39% are not prepared, according to students themselves. Of recent high school graduates in the work force: 39% are not prepared for the demands of the work place, according to employers; and only 25% of employers polled said that a high school diploma was enough education to do the jobs for which they needed employees. 77% of those recent graduates not in college and 65% of those in college say that now knowing what the demands of work and higher education are, they would have applied themselves more in high school.

Common student misconceptions about college readiness ²

<u>What You May Believe</u>	<u>What You Should Know</u>
I don't have to worry about my grades or the kinds of classes I take until my sophomore year.	Students need to prepare well for college in order to enroll in college-level courses. Students need to take a carefully planned series of courses starting no later than ninth or tenth grade.
It's better to take easier classes in high school and get better grades.	One of the best predictors of college success is taking rigorous high school classes. Getting good grades in lower-level classes will not prepare students for college-level work.
Meeting high school graduation requirements will prepare me for college.	Adequate preparation for college requires a more demanding curriculum than is reflected in minimum requirements for high school graduation.
I can take whatever classes I want when I get to college.	Virtually all community colleges and many universities require entering students to take placement exams (such as COMPASS) in core subject areas. Those tests determine which classes students can take.
Community colleges don't have academic standards.	Community colleges have stringent academic standards that mirror those of four-year colleges. Community college courses are not "easy."
Four-year colleges will admit anyone.	Most four-year institutions do not admit students who are not college ready. Many four-year schools are in a position where they can be very selective.

² Adapted from "Betraying the College Dream: How Disconnected K-12 and Postsecondary Education Systems Undermine Student Aspirations," a final policy report from Stanford University's Bridge Project, 2003.

If I'm not ready for a four-year college, I can go to community college and easily make up the work that I didn't do in high school.

While most community colleges admit all applicants who have completed high school, these colleges also make mandatory course placements based upon assessment scores.

If I graduate from high school and I am not college ready, I will never be successful in college or in life.

Many students improve academically in college and go on to be very successful. However, making up work that should have been done in high school is very challenging and costly. Work hard now and avoid this difficult path.

DO NOT PAY TO TAKE CLASSES IN COLLEGE THAT YOU CAN TAKE FOR FREE IN HIGH SCHOOL!

Developmental courses are classes that you must take in order to bring yourself up to college level. If you placed below college level in reading, below English 101 in writing, or below Math 105/108/124, then you would have assessed into a developmental level course had this test been for college placement.

The skills covered in developmental courses are covered in your high school classes. Why would you want to pay to learn these skills when you could learn them for free in high school?



Some fun facts about developmental courses:

If you place into a developmental course, you must successfully complete it in order to qualify for other classes.

- You do not receive any credit hours for developmental courses. These courses do not count towards any degree.
- You will have to stay in school longer to finish your degree – in some cases, as long as two years.
- Developmental courses do not transfer to other schools.
- Most financial aid packages will not cover developmental courses.
- Developmental placements limit when you can register and what other classes you can take.
- Developmental courses will cost you extra time and plenty of extra money.

A PARKLAND COLLEGE EXAMPLE

A 5 CREDIT HOUR MATH 098 COURSE (INTERMEDIATE ALGEBRA) WILL COST \$385 PLUS THE COST OF THE TEXTBOOK (USUALLY ABOUT \$150) – AND THAT’S FOR ONLY ONE DEVELOPMENTAL COURSE. SOME STUDENTS WHO ASSESS INTO DEVELOPMENTAL READING, ENGLISH, AND MATH COULD SPEND \$2000 IN JUST TUITION (NOT INCLUDING BOOKS AND FEES) GETTING THROUGH THE DEVELOPMENTAL SEQUENCE. IN SOME CASES, THE COST COULD BE MORE.

IN ADDITION, STUDENTS WHO ASSESS INTO THE LOWEST DEVELOPMENTAL COURSE IN EVERY AREA COULD SPEND AS LONG AS TWO YEARS COMPLETING THE DEVELOPMENTAL SEQUENCE – WITH ANOTHER TWO YEARS REQUIRED TO COMPLETE THEIR ASSOCIATE’S DEGREE.

IT IS NOT TOO LATE TO BE COLLEGE-READY!

If you are not happy with your scores, you can work over the next year to bring yourself up to college-level. To do so, you must:

1. **Take challenging courses.** Take a math class during your senior year, regardless of your level, and be sure to take courses that emphasize reading and writing. Your senior year is no time for “easy” classes!
2. **Work hard**, right up to graduation. No senior slack!
3. **Talk to your counselor, as well as your English and math teachers** about what you need to do to be prepared for higher education or the world of work.
4. **You have to do the work!** Your teachers are more than happy to help you, but only you can do the work to improve your skills.

Please understand that *you* have control over your academic success or failure. *You* have power over your attitude, behavior, and choices – all of which will determine how much or how little you learn.

If you are not happy with your COMPASS test results, you can make significant changes to your academic life over the next year regardless of your placements. It is not too late for you to make a commitment to your future.

YOUR SCORE REPORT

Today you received your COMPASS score report. Your report indicates the level at which you placed in reading, writing, and math.

COMPASS test placements are done in terms of courses offered at Parkland. *Do not focus on the numeric score – look for the course placement.* The course(s) into which you placed are highlighted on your score report. Find your course placement for each discipline on the charts that follow. Each course description gives a brief summary of some of the skills on which you will need to work to be considered college ready. Take the time to study your placement and discuss areas of concern with your counselor and teachers. They will help you sign up for courses that you need to improve or maintain your skills.

READING

Students should focus on the skill set indicated by the placement level. Students should develop the skills through *CCS 099* in order to be college ready.

Developmental	Adult Basic Education: Student needs to focus on developing basic reading skills for successful college-level work. Emphasis should be on textbook and essay analysis, reading efficiency, and note taking.
Developmental	CCS 098: Student needs to focus on intermediate comprehension skills basic to successful academic reading. Skills include reading and understanding different modes of written work in increasing levels of difficulty; understanding and applying active learning strategies; utilizing pre-reading and questioning strategies to activate prior knowledge of a written piece; utilizing general reading strategies to identify topic, thesis, and supporting ideas and to build college-level vocabulary; and practicing higher-order thinking skills to develop the ability to respond to a written piece.
Developmental	CCS 099: Student needs to focus on reading skills basic to successful college-level work. Emphasis should be on textbook and essay analysis and reading efficiency. Skills include utilizing active reading strategies for different types of reading; locating topics and identifying an author's thesis; writing concise yet thorough summaries of reading selections; and responding to readings based on personal experience, analysis, and interpretation. Attention should also be paid to note taking and critical thinking.
College Level	No CCS Course Required: Student is reading on the college level. Academically challenging coursework should be pursued in order to keep skills sharp.

NOTE: Diagnostic vocabulary and comprehension tests are given to students who do not place into college-level reading. Upper-range scores in the vocabulary and comprehension diagnostic sections can elevate a student into a higher reading placement.

WRITING

Students should focus on the skill set indicated by the placement level. Students should develop the skills through *English 099* in order to be college ready.

Developmental	Adult Basic Education: Student would be required to complete the Adult Basic Education reading course (see Reading) before enrolling in an English course.
Developmental	English 098: Student needs to extensively practice writing with emphasis on paragraph organization and development. Students should develop ability to write multiple-paragraph essays and engage outside sources and texts. Student should review grammar, mechanics, and sentence structure.
Developmental	English 099: Student needs to extensively practice writing with emphasis on organizing and developing essays and engaging outside texts and ideas. Student should review grammar, sentence structure, and paragraph organization and development.
College Level	English 101: Student needs to focus on essay writing with emphasis on the writing process, purpose and audience, critical analysis, focus, organization, development, clarity, and coherence.
College Level	English 106 (Honors): Student needs to focus on essay writing with emphasis on the writing process, purpose and audience, critical analysis, focus, organization, development, clarity, and coherence. Student is also ready to focus on writing research papers. Necessary skills include adopting a topic, logically arguing a position, narrowing and supporting a thesis statement, developing effective research techniques, accurately documenting sources with a conventional format, and recognizing the particular needs of an audience.

NOTE: Students receiving the essay option message would need to write an essay to determine if placement is English 099 or English 101. Please note that 80% of students at Parkland College who opt to take the essay place into English 101. This essay is not provided to juniors assessing in the high schools.

MATH

Students should focus on the skill set indicated by the placement level. Students should also develop the skills through *Math 098* in order to be college ready.

Developmental	Adult Basic Education: Basic computation skills.
Developmental	MATH 094 (Pre-Algebra Skills): Ratio; proportion; percent; conversion of units; area; perimeter; signed numbers; order of operations; formulas; basic equations; basic exponent laws; word phrases; and basic word problems.
Developmental	MATH 095 (Beginning Algebra): Equations; inequalities; exponents (positive, negative, zero); scientific notation; operations with polynomials and an introduction to factoring; modeling and applications; linear equations; the coordinate plane; linear systems of two equations; and multiple approaches to problem solving.
Developmental	MATH 098 (Intermediate Algebra): Relations; functions; graphs and their analysis; systems of linear equations with more than two variables; polynomials and factoring; radicals; quadratic equations and inequalities, absolute value equations and inequalities; algebraic fractions; quadratic functions; modeling and applications; linear and quadratic curve fitting.
College Level	MATH 124 (College Algebra): Relations and functions; linear, polynomial, exponential, and logarithmic models; radicals and complex numbers; systems of equations and matrix methods; sequences and series; and binomial theorem.
College Level	MATH 125 (College Trigonometry): Trigonometric functions; fundamental identities; graphing; solving trigonometric equations; inverse trigonometric functions; complex numbers; and vectors.
College Level	MATH 128 (Calculus and Analytic Geometry): Functions; derivative and its applications; integral and its applications; limits and continuity; trigonometric, exponential, logarithmic, and hyperbolic functions.

NOTE: Students receiving the computation skills message would need to take a computation skills test to determine if placement is Math 094 or Adult Basic Education Math. This computation test is not provided to juniors assessing in the high schools.

APPENDIX 4 – Sample High School Outreach Checklist

(Reproduced with the permission of Kirkwood Community College, Cedar Rapids, IA)

What colleges should consider when building partnerships with high schools

Checklist

1. What will be the purpose for conducting this testing activity? Is it to enroll students? Determine college readiness? Provide instruction? Provide realistic information about a student's skills? Tailor curriculum to meet needs? How to advise students? How to help counselors advise students? Provide better prepared students to enter Kirkwood? Gather pre- and post-test data? Identify what **model(s)** to use:
 - * **Dual enrollment** Would the student enroll in high school and Kirkwood courses, either for credit or for developmental work? Noncredit?
 - * **Placement** If testing seniors, would we use Kirkwood placement tests? Would these placement scores be valid? For how long? One year? Could seniors enroll in Kirkwood courses (face-to-face or Internet)? When could they enroll? Do we make remote testing feature available? If testing juniors, do we use current KCC placement tests and messages or customized tests and messages to place in the high school curriculum? If testing sophomores, build customized placement messages for placement in high school curriculum or Kirkwood courses, or both? Who will map score ranges to high school curriculum? Will placement be mandatory?
 - * **Diagnostic Testing for Instruction** Who would be given diagnostic tests? Only those students who do not place into Kirkwood courses? How will these scores be used? What resources (software, i.e. Skills Tutor, face-to-face, hybrid, Internet courses, modules, learning objects) are available for students to build skills in the high schools or at Kirkwood, or both? Who will map diagnostic score ranges to high school or Kirkwood curriculum? Who will pay for this instruction?
2. Who will decide cut scores and wording of placement messages for each site and each grade level at each site?
3. Who will interpret scores to the student, teacher, counselor, and parents?
4. What training is needed for proctors, counselors, and teachers? Who will provide this training? When do they need it? What ongoing training and support are needed? Who will provide ongoing training and support? What are the costs?
5. How are the high school faculty involved? What training will they need? Who will provide this training?
6. Would high school faculty modify their curriculums to meet needs identified by COMPASS Internet scores?
7. Would high school counselors be involved? What would be their role? What training will they need? Who will provide this training?
8. How would parents be involved? Would scores be reported to parents? Would parents pay for developmental or credit instruction?
9. How will security be maintained? How will Kirkwood's COMPASS testing guidelines be enforced?
10. Who will provide calculators for math testing?

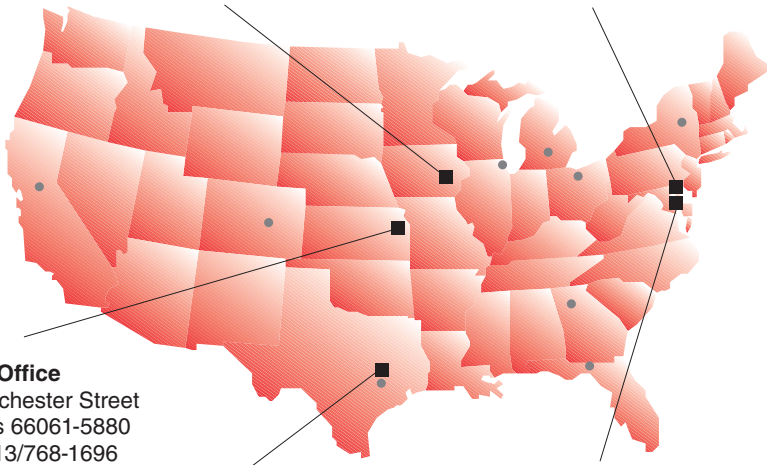
11. What facilities are equipped for administering COMPASS at each site? How are they secured? Who will ensure this security?
12. How many computers are needed for testing? Who will install the COMPASS Internet Version test launcher on them?
13. Who will administer the tests? What training will proctors need? Who will provide this training?
14. How often will the tests be administered? Will tests be made available only during certain periods of time? Or available all the time?
15. How long will this activity take place (time period)?
16. Will this be a pilot project?
17. Which tests will be administered (reading, writing, mathematics placement, diagnostics, ESL, e-Write)?
18. Are multiple test packages needed? If so, what kind?
19. Who will pay for the tests? (initial and re-tests) (student, college, high school, parent?)
20. Can students prepare before taking tests?
21. Can students retest? If so, when? Who pays for retesting (retests cost ½ of initial testing)?
22. What is the total cost of the testing activity?
23. How will this activity be communicated to the high school faculty and staff?
24. What role will the high school faculty and/or staff play in this activity?
25. Do we need a high school faculty and staff COMPASS orientation activity? If so, when and where? Who will provide the orientation?
26. What high school faculty and staff training may be required?
27. What materials and manuals will be created/used?
28. Will SSRs (single student records) be created? Uploaded where? To be imported into Colleague?
29. Who owns/controls the student data? Kirkwood owns the data, but who is authorized to manipulate it? Report it? Report it to whom?
30. How may the student data be used?
31. Identify where the data (or backup data) will be stored.
32. What demographic items or local questions will be used? COMPASS Internet Version can collect 22 demographics and 40 “local items” item questions. Do we have different demographic/local questions for sophomores, juniors, and seniors?
33. What cutoff scores will be used? Who will determine these scores?
34. What placement and/or diagnostic messages will be used?
35. Will students receive counseling or advising after testing? If so, when and by whom?
36. What additional costs might occur (retesting, mileage, staff time, printing, etc.)?
37. Who will create and conduct the program evaluation? When?
38. Who is responsible for managing the testing program? Who decides testing policies, placement issues, and testing issues? Who will be the final authority to resolve issues?
39. Who will provide technical support at each site? Who will be approved to contact COMPASS technical support? Who will manage technical support? Who will proctors call for technical questions?

40. Who will develop a contact list for high school personnel?

41. Do we need a written agreement or contract? Who will write this agreement? Who will secure written approval from the person with authority?

ACT Offices

Postsecondary Services—Assessment Programs



National Headquarters
500 ACT Drive
P.O. Box 168
Iowa City, Iowa 52243-0168
Telephone: 319/337-1000

Hunt Valley Office
Executive Plaza I, Suite 200
11350 McCormick Road
Hunt Valley, Maryland 21031-1002
Telephone: 410/584-8000

Olathe Office
1365 North Winchester Street
Olathe, Kansas 66061-5880
Telephone: 913/768-1696

National Center for Educational Achievement
4030-2 West Braker Lane
Austin, Texas 78759-5329
Telephone: 512/320-1800

Washington, DC Office
One Dupont Circle NW, Suite 340
Washington, DC 20036-1170
Telephone: 202/223-2318

Field Offices

WEST REGION

Denver Office

3131 South Vaughn Way, Suite 218
Aurora, Colorado 80014-3507
Telephone: 303/337-3273

Sacramento Office

2880 Sunrise Boulevard, Suite 214
Rancho Cordova, California 95742-6549
Telephone: 916/631-9200

MIDWEST REGION

Chicago Office

300 Knightsbridge Parkway, Suite 300
Lincolnshire, Illinois 60069-9498
Telephone: 847/634-2560

Ohio Office

700 Taylor Road, Suite 210
Gahanna, Ohio 43230-3318
Telephone: 614/470-9828

Michigan Office

1001 Centennial Way, Suite 400
Lansing, Michigan 48917-8249
Telephone: 517/327-5919

SOUTHWEST REGION

Austin Office

8303 MoPac Expressway N, Suite A-110
Austin, Texas 78759-8369
Telephone: 512/345-1949

EAST REGION

Albany Office

4 Pine West Plaza, Suite 403
Albany, New York 12205-5564
Telephone: 518/869-7378

Atlanta Office

3355 Lenox Road NE, Suite 320
Atlanta, Georgia 30326-1332
Telephone: 404/231-1952

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1315 East Lafayette Street, Suite A
Tallahassee, Florida 32301-4757
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A College Knowledge Outreach Program for Latino Immigrant Parents: Process and Evaluation

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Abstract

As Latino immigrant families adjust to life in the U.S., they may experience individual and systems level barriers to meeting their children's educational planning needs. In emerging immigrant communities, schools and social service agencies may not have all the resources and structures needed to serve Spanish-speaking parents. Thus, researchers and practitioners may need to consider partnership models to meet the needs of marginalized Spanish-speaking families. The article describes three stages in a community-based college knowledge educational outreach program for Latino parents: (1) needs assessment; (2) collaboration/implementation; and (3) evaluation. The educational outreach program was created and piloted for 27 Latino immigrant parents in two settings (middle school and community agency). The Bryan and Henry (2012) model for collaborative outreach for underserved populations was applied post-hoc to compare the pilot program with an ideal framework and identify possible improvements to the educational outreach program for Latino parents. Implications for program content and the process of community partnering are discussed.

Keywords: Latino immigrant parents, outreach programming, partnership model

Introduction

According to census data from 2012, roughly 18.8 million first generation immigrants from Latin American countries live in the U.S., along with 34.1 million native born Latinos (Krogstad & Lopez, 2014). These new arrivals tend to have fewer resources. For example, 26% of Mexican immigrants who migrated to the U.S. in 2013 were living in poverty, 31% were proficient in English, and 6% had a bachelor's degree (Gonzalez-Barrera, 2015). Although most of Latino families who live in the U.S. reside in California, Texas, New Mexico, Arizona, Illinois, Florida, and New York (i.e., traditional gateway states), the states with the largest increases in Latino population from 2000-2010 were South Carolina, Alabama, Tennessee, Kentucky, Arkansas, North Carolina, and Maryland (Immigration Policy Center, 2012). These emerging immigrant communities may be limited in their support systems and structures, and often are building capacity to respond to newcomers from other countries (Wainer, 2004). Thus, there may be an inherent disconnect in emerging immigrant communities between the strategies and resources in place by the service providers and the needs and barriers experienced by the newcomers.

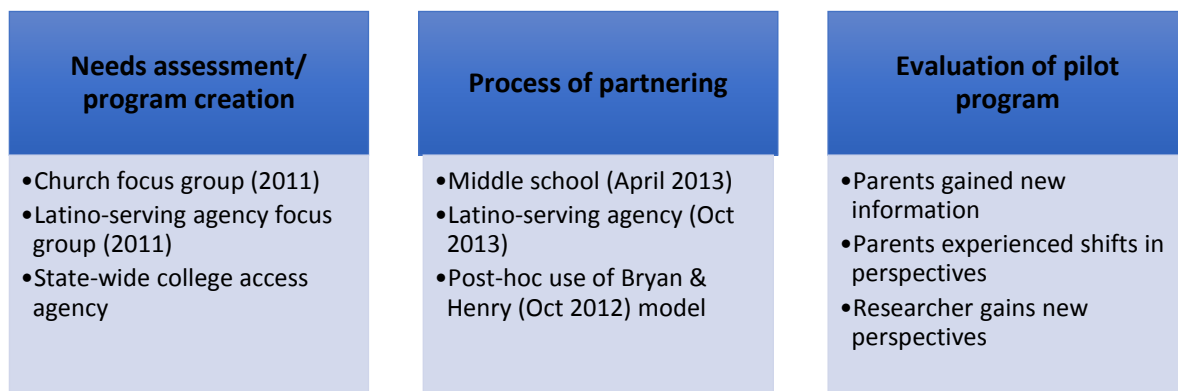
There are many ways that this disconnect can impact immigrant families, but the current article will focus on education. Educational opportunity is one of the key motivations for families to immigrate to the U.S. Furthermore, Latino immigrant parents can provide tremendous motivation and emotional support for their children in terms of educational goals, but may have fewer tools to enable them to provide instrumental support for planning (Gonzalez, Villalba, & Borders, 2015). Previous researchers have suggested that schools may need to revise their assumptions about what immigrant parents and families know about educational processes and planning in the U.S. or how best to communicate with newcomers (Auerbach, 2007; Tornatsky, Cutler, & Lee, 2002; Walker, Ice, Hoover-Dempsey, & Sandler, 2011). Several researchers have documented that Latino immigrant parents are less likely to participate in school based parental involvement activities (e.g., PTA meetings, volunteering, attending meetings with school counselor) (DeGaetano, 2007; Delgado-Gaitan, 1991) and more likely to follow their cultural scripts about home-based involvement with their children (Mena, 2011). However, schools in emerging communities can build capacity for educational engagement with Spanish-speaking parents by building on those strengths and addressing challenges or barriers.

There are many potential barriers to access of school services by adults in immigrant families, including lack of linguistically and culturally appropriate outreach, restrictive policies regarding eligibility for services, and cultural norms held by immigrant families about defining problems and identifying relevant resources (Auerbach, 2002; Van Velsor & Orozco, 2007; Zarate, 2007). This list includes both individual level barriers (e.g., acculturation to new norms or familiarity with a new system of service providers) and systems level barriers (e.g., monolingual resources, restrictive policies). Thus, counselors, educators, or advocates will need to consider ways to promote access to and evaluate effectiveness of school-based services for Latino immigrant families, including strategies for proactive outreach or advocacy with these communities (Auerbach, 2004; Delgado-Gaitan, 1991; Mellin, Belknap, Brodie, & Sholes, 2015; Suarez-Orozco, Onaga, & Lardemelle, 2010). Effective outreach should attend both to content/information and process/collaboration.

One useful model for the process of conducting outreach or generating partnerships with disenfranchised or vulnerable communities has come from the school counseling literature. Bryan and Henry (2012) emphasized collaboration, empowerment, and social justice in their process model for establishing effective school-family-community partnerships. The conceptual model includes seven steps, which are "(a) preparing to partner, (b) assessing needs and strengths, (c) coming together, (d) creating shared vision and plan, (e) taking action, (f) evaluating and celebrating progress, and (g) maintaining momentum" (Bryan & Henry, 2012, p. 411).

Given the value placed on education in immigrant families, the informational needs of Latino parents who are newcomers to the U.S., and the utility of community outreach, this praxis-based article will provide an example of a Spanish-language educational outreach program for parents (see Figure 1).

Figure 1. Steps in creating content of outreach program



The article is organized around the three phases of the project: (1) doing a community-based needs assessment to inform program content; (2) using the Bryan and Henry (2012) conceptual model to evaluate the partnership process that was implemented; (3) and reviewing program evaluation data from participants to draw initial conclusions about program effectiveness. Because the Bryan and Henry partnership model was published after this project had already begun, it was not used as a guide to collaboration (as it ideally would have been), but rather was used post-hoc as a way for the researcher to learn and improve the project. This article represents the concept of praxis – a cycle of activity or experience, critical reflection about the activity, and renewed practice after integrating the lessons learned (Kolb, 1984).

Thus, the purpose of this article is twofold. The researcher will describe initial steps in a community-based research project, which is part of the continuum of participatory or community-engaged research, but represents an earlier developmental phase of such research designs (Office of Community Engagement, 2012). The researcher will elaborate on "lessons learned" along the way, in the hopes that others interested in models of community-engaged research would benefit from both the strengths and weaknesses of the current implementation.

The second goal is to situate the program in the content-based literature of college knowledge outreach for Latino immigrant parents and note its contributions to practice in an emerging immigrant community (as contrasted with most examples of outreach for Latinos, which are based in traditional gateway states in California, Texas, Florida, and New York).

College Knowledge Outreach Program

A group of counselor educators interested in promoting educational access for youth in immigrant families began a research-to-practice group with the intention of learning about the strengths and needs of immigrant families with respect to education, the practices of the educational systems in the local community, and the gaps or opportunities between them. Our goal was to understand the lived realities of the families and support the educational community and provide guidance to immigrant families. The researchers hypothesized that Latino immigrant families were not receiving similar assistance and resources from school counselors as other families (given the structural limitations of being in a new immigrant community without translators, interpreters, or key cultural brokers available for assistance). Thus, we embarked on a needs assessment. The research group included two bilingual individuals who could communicate with Spanish-speaking community members (including the author and a collaborator). The research group also had a network that included bilingual service providers in the community.

The needs assessment and program creation phase was inductive in nature, and included (a) focus groups with Spanish-speaking parents at a Latino-serving church and a Latino-serving community agency and (b) review of resources and materials held by a state-wide college access clearinghouse (College Foundation of North Carolina, n.d.). Thus, the topics of the program had a foundation in standard college planning materials (e.g., high school coursework, types of colleges, aspects of the application and financial aid processes), but were modified to be appropriate to the population given the focus group data. After the 6-week outreach program was created and piloted with immigrant parents at the middle school ($N=18$) and at the Latino-serving community agency ($N=9$), preliminary feedback from the participants and partnering sites was gathered and is shared as pilot program evaluation data. The three groups that form the set of stakeholders for this project included the university, community entities, and immigrant families.

Initial Needs Assessment

Assessment should involve as many perspectives as possible, and should not be limited only to a deficit perspective. From the community-engaged research lens, the needs assessment must include direct input from the individuals who are affected by the problem (Office of Community Engagement, 2012). In the current example, the community assessment phase began with a conversation with bilingual service providers about perceived educational needs of Latino immigrant families, including the staff at the Latino-serving community agency (LCA), a local Latino church leader, and a state-wide educational advocate for Spanish-speaking families. Two focus groups were planned and conducted with samples of Spanish-speaking parents from the LCA and the local church (Gonzalez et al., 2015). From the focus group participants, the

counselor educators sought to learn about the following: (a) aspirations about education held by Latino immigrant parents; (b) their perceptions of the availability of culturally and linguistically relevant resources; and (c) resources available for both informational and financial resources to address unmet needs.

Findings from the two focus groups conducted by the researchers identified who were the bilingual service providers and role models who were supporting educational pathways of Latino family members and the limited interactions family members had with English-only programs and resources (Gonzalez et al., 2015). The researchers heard immigrant parents reflect on education as the best legacy they could give to their children in the U.S. In addition, the researchers learned that Latino immigrant families valued the importance of transmitting knowledge about their cultural heritage and becoming role models, so that their family could withstand challenges and that their children could learn to be resilient in the face of difficulty. Parents also conveyed their worries about their children's futures and limits to their ability to help (e.g., struggling with legal status, economic burdens, language barriers, and little access to information). Parents expressed a desire to do more to help their children beyond monitoring their behaviors, keeping them on a productive path and providing emotional encouragement to reach their goals. Parents knew that future educational options required planning ahead, but they did not know what specific steps were needed to initiate that plan. When they tried to interact with school personnel to improve their capabilities to guide their children, the experiences were often painful and discouraging. At times, the schools were experienced as unwelcoming or impenetrable systems by immigrant parents.

Program Creation

After considering the themes from the two parent focus groups and reading existing literature about educational interventions with Latino immigrant parents (e.g., Auerbach, 2002; 2004), the researchers partnered with a state-wide educational access agency (CFNC), which sponsors a comprehensive website to help students and families plan for college and career, apply to college, and find resources to pay for their education (College Foundation of North Carolina, n.d.). The website content is primarily in English, with a few sections translated in Spanish; however, many immigrant parents are unaware of this resource. The research team then worked with the agency to combine the data streams to create the content for the outreach program (Borders, Hines, Gonzalez, Villalba, & Henderson, 2011).

Process of Collaboration

The resulting outreach program was implemented before the principal researcher became aware of the Bryan and Henry (2012) model, but the current study describes the steps of their partnership model to illustrate how the researcher's initial experience with the collaboration process could have been improved. Thus, this section is organized by the stages of the Bryan and Henry (2012) model, with commentary about the degree of consistency between the researcher's program and the ideal represented by the model.

Preparing to Partner and Assessing Needs/Strengths

The Bryan and Henry (2012) model begins with a service provider (e.g., practitioner, educator, or community partner) gathering information to describe the groups present in the community and any constraints to the provider's ability to partner with them. This model indicates that if the way forward to partner is open or can be opened, then a needs and strengths assessment can be conducted. Due to the value for empowerment of the community, the model clearly seeks to avoid a deficit perspective in the assessment phase and to be as inclusive as possible in inviting participation in the assessment. In the current example, the assessment phase was described and evaluated in the previous section. While immigrant community voices were part of the needs assessment, the process could have been more fully community-engaged by including those parents as leaders or decision makers in the early phases of partnering.

Coming Together and Creating a Shared Vision

Bryan and Henry (2012) recommends convening all stakeholders for an initial meeting to establish a democratic and equitable process and discuss strategies to meet community needs. The stakeholder team could include leaders in the identified agencies/schools/organizations, cultural brokers in the population of interest, and members of the intended audience. In the current example, initial meetings were conducted separately with a state-wide agency dedicated to educational access and outreach, including the Spanish-services coordinator, and with leaders in the partnering schools and community agencies. The first set of meetings with the state-wide agency were to discuss and come to consensus on relevant content of an outreach curriculum, review literature about effective outreach to Latino immigrant parents in other regions, and learn from the experiences of the existing Spanish-services coordinator. The second set of meetings included leaders at the intended outreach settings (e.g., administrators, school counselors, a parent advocate, and ESL teachers at the middle school, and service coordinators at the LCA). The researcher learned that Latino parents were strongly motivated and interested in receiving information about educational planning.

The researchers heard about needs of Latino immigrant parents and children already receiving services at both locations from the program coordinators (e.g., basic English classes at the school, parenting strategies group at the LCA). The principal researcher then shared our preliminary outreach program with the program coordinators to see if it could help meet needs and considered ways to adapt it to increase relevance, such as (a) having local Latino immigrant parent or student role models speak about their experiences; (b) including more specific information about local options for post-secondary education; (c) having bilingual school personnel introduce themselves as resources and bring translated documents about relevant programs and opportunities; and (d) having current information on local policies that affected this population (e.g., under which circumstances can students with undocumented parents apply for university admission or financial aid). Thus, the process of creating a shared vision was iterative, with initial needs assessment from the Latino parent focus groups leading to creation of the outreach program content and subsequent opportunities for comment and feedback from partnering organizations.

Upon reflection, possible improvements to the process could include asking parents for their input on the planned outreach program in terms of content and logistics. This would increase their visibility, their buy-in to the program, and the chances that they could participate (i.e., identify and eliminate barriers). The researchers could also have consulted more consistently with a formalized leadership team of community partners to create a shared vision throughout implementation.

Taking Action: Recruitment and Implementation

In the Bryan and Henry (2012) model, taking action includes delegation of tasks to members of the leadership team, moving forward with the planned timeline of activities, and including media coverage to highlight the partnership. The current outreach program was a pilot version, so it was time-limited, had little media coverage, and a more centralized structure. This divergence from the partnership model and from norms of community-engaged research will be discussed in the limitations section. Community partners assumed the task of publicizing the outreach program, recruiting interested parents, and preparing a space for the six sessions. The facilitators assumed responsibility for preparing session content and materials, including guest speakers, and implementing program evaluation. University IRB approved the study as exempt, and verbal assent rather than written consent was utilized due to the characteristics of the participant population. Implementation of the program will be described briefly in the section of the article entitled "Evaluation of the outreach program."

Evaluating, Celebrating, and Maintaining Progress

Bryan and Henry (2012) emphasized both evaluation of program outcomes and evaluation of the partnership process, as well as celebration of the accomplishments of all parties involved. In the current example, program evaluation feedback was solicited from both parents and community partners. Partner feedback included implications for the collaborative process. The partners reflected that the beneficial aspects of the program had been (a) seeing the parent participants and their children discuss future academic plans together after the outreach program; (b) observing the motivation and dedication of the parent participants in terms of attendance and participation; (c) observing how the parents' sustained participation motivated helpful responses from school staff and administrators; and (d) noticing how the bilingual materials and provision of child care and food facilitated that participation. The partners noted that improvements could still be made in terms of (a) sustaining or expanding such outreach programming; (b) continuing to assess needs and interests of local parents to have relevant offerings; and (c) connecting the Latino immigrant parents to other support entities in the community.

The parents in the school setting celebrated their success by collectively organizing a potluck dinner for the final session. In addition, the parents have continued to stay in touch with the presenters and the school contacts as they move forward with educational planning for their children. The parents at the LCA requested a campus tour of the university where the counselor educators are located. In both cases, the parent community became more aware of their common struggles and strengths and formed an internal support group.

The last stage in the Bryan and Henry (2012) partnership model is maintaining relationships with the partnering entities. Although the pilot outreach program described was finite in nature, it has led to ongoing partnerships and to a new grant funded opportunity to initiate similar outreach in a nearby county. The researchers are maintaining connection by planning for a campus visit for the LCA parents. This partnership also has helped to bring more resources to the middle school, including bilingual mental health services one day a week, a four sessions Spanish-language parent academy addressing both academic and mental health topics, and consultation with the school counseling staff and administrators regarding Latino immigrant family needs. Overall, the post-hoc application of the Bryan and Henry (2012) model to the outreach program has highlighted some strengths (e.g., attending to immigrant parent perspectives, collaborating with community partners) and some areas for continued growth (e.g., expanding the collaboration to leadership and decision making, maintaining momentum in the partnership).

Evaluation of the Pilot Programs

The college knowledge outreach program for Latino immigrant parents was piloted with 27 participants in total at the middle school and LCA. The topics discussed were as follows: (a) understanding your child's interests; (b) improving the high school experience; (c) finding the college that best fits your child; (d) the admissions process; (e) the financial aid process; and (f) following the path forward (Villalba, Gonzalez, Borders, & Hines, 2014). These topics were related to the community needs assessment in that parents had described their isolation from English only resources and their lack of knowledge of existing Spanish language resources, their motivation to help their children achieve educational goals, and the current limits to their ability to help with instrumental tasks (Gonzalez et al., 2015). The current outreach program was implemented in an educational curriculum format, with 60-90 minute sessions in Spanish occurring once a week for six weeks. The presenters were two White female educators who had acquired Spanish as a second language; both had been involved in the initial development phases of the program. A bilingual process observer was present each week at the middle school pilot to help the presenters monitor participant reactions and provide suggestions for improving implementation. At the LCA, the bilingual staff person was present for all sessions and provided helpful feedback. Guest speakers with a relevant connection to the participants (i.e., similar cultural experiences, examples of successful implementation of college preparation tasks, local service providers) were present for several of the sessions at each location.

Methods

Participants

A total of 27 parents (18 parents from the middle school and 9 parents from the community) participated in this program; they completed initial demographic forms and attended all six sessions. All study participants were immigrants, predominantly from Mexico (n = 21), Colombia (n = 2), Cuba (n = 1), Uruguay (n = 1), and unspecified (n = 2). Most were women (74%), and their ages ranged from 32-50, with one grandparent who was 70 years old in attendance. Their

occupations were mainly labor-based (i.e., seamstress, factory employee, clerk, mechanic, construction worker). In terms of receiving formal education, 19 had not completed high school, 3 had a technical certificate, and 5 had completed a post-secondary degree (two or four year).

Results

Parent Feedback

Prior to the first session, the parent participants responded to an open-ended question on the demographic form, which was "What are the main worries of the parents about helping their children to prepare and apply to college?" The concerns they listed included: (a) limitations in English fluency; (b) limited access to computer-based information; (c) lack of available bilingual resources; (d) lack of certainty of who to ask for help; (e) cultural barriers to understanding the educational system; and (f) concerns about child's eligibility for post-secondary study (e.g., grades, legal status, financial status). These concerns represent the identified needs in the words of the parent participants.

Written qualitative feedback from parent participants also was gathered after the final session. Since this was a pilot study, the researchers were most interested in participants' open-ended perceptions of the outreach program. Parents in attendance at the last session were given a survey with three prompts: (1) What new information did you learn in this workshop? (2) What was surprising or impactful to you from the workshop? and (3) How could we improve the workshop for the future? Brief qualitative feedback was gathered in Spanish and translated into English by the author, with a validation check by one of the bilingual program presenters.

Parents at both sites gave similar responses to the questions. One theme that emerged was about new information that they had learned and resources they had acquired. Parents identified specific college planning information that was beneficial to them (e.g., scholarships or financial aid forms, online resources, the "nuts and bolts" of the application process, an understanding of the SAT and ACT, and the connection between college degree types and careers). Parents specifically found it impactful to learn about the application and financial aid process and resources that exist to help with that task, including special resources for families with an undocumented member.

The second theme took on a more personal or affective note about the parents' role in college planning with their children. Several parents offered general reflections about new perspectives they had gained, such as *"there are people who can help us, both the child and the parent," "if a person wants to and puts all their determination into it, the child can achieve his dreams and have a better future,"* and *"we have to support our children and not be afraid."* Three parents stated learning about financial aid resources meant that sending their child to college was indeed possible. Similarly, another parent mentioned, *"Something I didn't know that there are many kinds of help, my husband and I thought that it was very difficult to send our kids [to college] because it is very expensive, but we learned that it can be done."*

In the final theme, parents expressed appreciation for the relationships and models that they observed during the program. Five participants mentioned that a guest speaker with DACA (Deferred Action for Childhood Arrivals) status was very impactful. His testimony and that of other guest speakers showed parents that *"with effort and dedication, a person could go far."* Participants also found the fact that the outreach program was delivered in Spanish by non-native speakers to be noteworthy. Five expressed appreciation for the bilingual presenters' dedication and genuine interest in the parent's concerns. One stated, *"The interest of the teachers surprised me, how they showed us with lots of caring how to encourage our children to keep studying."* Another wrote, *"Knowing that we can count on you was the most important thing."* Finally, two participants mentioned the benefit of hearing the stories of the other parents in the workshop, as they had shared similar concerns and aspirations for their children.

In terms of what could be improved for the future, almost every participant said that the workshop was very informative and beneficial. The most common suggestion related to increased advertisement. Participants suggested reaching out to Hispanic/Latino parents' work places, increasing the number of meetings, and sending flyers home with students. As one participant commented, *"I thought the workshop was perfect; it already had all the information that we needed. The only thing I saw was there wasn't enough publicity."*

Discussion and Implications

This praxis-based article describes three stages of a Spanish-language educational outreach program for Latino immigrant parents: a needs assessment, partnering/implementation, and evaluation (see Figure 1). Along a continuum of community-engaged research models, our project was not fully community participatory (e.g., with community members functioning as co-investigators who play a role in study design, implementation, data collection, and interpretation) but also was not fully traditional (e.g., researcher driven without any interactions with community members). Instead, it was community-based, in that community members were involved with the researchers in the needs assessment, gave feedback on the program contents and structure, were part of the implementation team, and helped to interpret findings and suggest improvements (Office of Community Engagement, 2012). The Bryan and Henry (2012) model for school-family-community partnerships also would have suggested more emphasis on community participation in the leadership team, so this pilot remains an approximation of the ideals of community engagement.

However, there are still important contributions made by this outreach program and the lessons learned throughout. One set of implications is for outreach programs with similar content, seeking to share college knowledge with Latino immigrant parents and to encourage their engagement with their children in both affective and instrumental support of educational goals. The second set of implications is for the process of forming a partnership to benefit a vulnerable group, and bringing together stakeholders in a collaborative social action.

Implications for Content

The existing literature on college knowledge outreach programs for Latino immigrant parents is based in traditional gateway states like California or Texas (e.g., Auerbach's studies), which typically means these communities have existing systems and structures in place to support immigrant families. In emerging immigrant communities, like the one where the current outreach program was implemented, schools may not have full time bilingual teachers or interpreters, or documents may not be translated into the language preferred by some parents (Wainer, 2004). Agencies like the LCA in the current example are few and far between, and are stretched thin trying to respond to the needs of immigrant families with few good options for referrals or resources. Immigrant families themselves may experience some isolation, as they do not see a large ethnic enclave with which to integrate upon arrival (Gonzalez et al., 2015). Thus, an outreach program in an emerging immigrant community has fewer existing supports to rely upon and is addressing needs in a vacuum (Bohon, MacPherson, & Atilas, 2005).

On the other hand, an outreach program in an emerging immigrant community has great opportunity to make an impact. First, the parent participants demonstrated their interest in the topic by their sustained attendance over six weeks and by their qualitative feedback. It is possible that their motivation for attending this outreach program stemmed from not having many other outlets to acquire this educational information in Spanish, and from valuing education as important to their children's future opportunities in the U.S. Second, the community sites (specifically the school) responded to the parents' motivated behavior with increased efforts to promote educational access for the Latino immigrant community (e.g., translating documents into Spanish, continuing to offer free English classes for parents). Discussions with stakeholders included potential systems-level responses for common immigrant stressors (e.g., legal status, language acquisition, acculturation), thus helping to build capacity in a school and an agency that had already shown their commitment to immigrant families.

Consistent with previous studies, when immigrant parents receive information in a manner and setting that is conducive to their learning and that respects their cultural strengths, they become more confident advocates for their children, more motivated and proactive participants in educational planning, and able to take greater leadership roles (Auerbach, 2011). Existing literature also underscores the importance of empowering parents, increasing their college-relevant social capital networks and role models, viewing parents as capable collaborators and leaders, and providing advocacy support when needed (Auerbach, 2004; Delgado-Gaitan, 1991; Jasis & Ordonez-Jasis, 2012; Pstross et al., 2016). In many cases, parental outreach programs have been paired with college access programming for the students, such that post-secondary aspirations would be supported from multiple angles. Past studies also pointed toward the value of a community participatory stance in further outreach efforts (Jasis & Ordonez-Jasis, 2012; Pstross et al., 2016). The current study contributes to the existing literature in that it is modeled after partnering with a college access agency in terms of content. For researchers in states without a college access agency, the author recommends the Spanish-language resources provided by The College Board and other national entities.

Implications for Process

The research team's ability to deliver this program to immigrant community members would have been diminished if the principal researcher had not partnered collaboratively with the school and the LCA. The middle school had started outreach to their Latino immigrant parent population prior to our involvement by offering free English classes, and the LCA was actively sought out by Latino community members due to its unique niche as a Latino serving United Way agency. The trust that the immigrant parent participants already had in the ESL teachers and the LCA staff members built a bridge between them and the university, allowing us to interact with them in a place that was familiar and comfortable for the parents. The potential for having the same participant turnout if we had hosted the program at the university was lower, particularly for a vulnerable population. Thus, utilizing the partnership model in advance and taking the time needed to build strong collaborative relationships would be highly recommended. In the current study, places where the Bryan and Henry (2012) model could have strengthened the outreach program are noted so that future research teams may benefit from our experience.

Empowerment of parents as informed, capable, and motivated participants is a key outcome (Auerbach, 2004; Jasis & Ordonez-Jasis, 2012; McLester, 2011; Pstross et al., 2016). Bryan and Henry (2012) included social justice, empowerment, strengths-based approach, and democratic collaboration as guiding values in their model; the researchers sought to incorporate these values in the current program to the extent possible. Presenters consistently emphasized the key role that parents have in their children's lives and appreciated their strengths as they continued to motivate, encourage, and assist their children in a new cultural context. However, involving immigrant parents as leaders in the conceptualization, planning, implementation, and evaluation of the program would model that message in a much stronger way. Parent leadership could also be a key in maintaining momentum and continuing the outreach, which was an area for growth of the current initiative.

Researchers or educators must also consider what social justice or advocacy role (if any) they are willing to play in the community, as creating opportunities for underrepresented parents to participate means making the existing social structure visible to the participants and being willing to request relevant adaptations from the social structure (Griffin & Steen, 2011). For example, school personnel were willing to translate materials for the parents that had previously been available only in English, and the LCA sponsored an extra session about DACA eligibility with legal counsel present. Such advocacy is particularly important in cases where participants face daunting social barriers (e.g., undocumented status) and can benefit from guidance and collaboration with service providers familiar with the systems they need to access (Storlie & Jach, 2013). The outreach program coordinators also should be attentive and responsive to systemic barriers to participation among the relevant community members (e.g., lack of transportation or child care, lack of existing trust with institutions like schools) (Gonzalez et al., 2015) as well as among the community partners and program leaders/facilitators themselves (e.g., lack of knowledge, confidence, or experience; limited communication strategies or bilingual resources;

and political constraints of institutions) (Griffin & Steen, 2011). The leadership team in the partnership model is an excellent place to consider what adaptations or advocacy skills are necessary to effectively serve the population of interest (Bryan & Henry, 2012).

Limitations and Conclusions

Some limitations of our outreach program include the post-hoc application of the Bryan and Henry (2012) model, the European ethnicity of the bilingual presenters, the reliance on brief qualitative program evaluation alone, and the limited nature of the program pilot. In addition, the decision of the researcher to adopt community-based strategies as opposed to fully community-engaged or participatory research strategies (e.g., allowing community members to be full participants in the research team, including selecting topics and issues for focus, designing the study, collecting the data, and collaborating in the interpretation and dissemination of the data) could be seen as a limitation by some. The researchers prefer to consider these approaches as points on a continuum with differing types of utility for various projects and researcher skill sets (Office of Community Engagement, 2012).

In comparing the actual outreach program developed in 2011 to the ideal model of creating a collaborative partnership (Bryan & Henry, 2012), several limitations of our implementation are apparent. The current outreach program was in a pilot version, so it was time-limited, had little media coverage, and a more centralized structure. In future outreach programming or partnerships, the researchers could attend more carefully to the phase of coming together in a sustained way to create a shared vision. While the team did seek out immigrant Latino parent community members and service providers and incorporate their perspectives into our outreach program, we may have missed some opportunities to share leadership and build capacity by involving those community members in a more significant and structured way. This stance may also relate to the way the researchers are maintaining relationships after the outreach program ended; we continue to be involved with the partners, but in a less consistent or sustained way than described by the Bryan and Henry (2012) model (e.g., having a 1-year, 3-year, and 5-year plan for the partnership, a timeline for implementation, and specific shared responsibilities for tasks). The difference could be summarized as working with community members to inform the project as compared to allowing them to directly shape the project, as in community based participatory research paradigms (Bryan & Henry, 2012; Office of Community Engagement, 2012). There are advantages and disadvantages to each approach, but allowing community members to share in decision-making could be more empowering.

Building collaborative community partnerships can be complex and time-consuming, so another limitation could be the amount of time and resources available to devote to building and maintaining key relationships. Partnerships must often be formed slowly over time, as communication allows for effective understanding to emerge and similarities and differences in perspective to become evident. For example, parental involvement might mean something different in the U.S. educational context than it means to immigrants who are referencing the norms for involvement in their home country (Dotson-Blake, 2010). A benefit of collaboration can be dividing the work among many hands. A drawback to collaboration can be differing goals and objectives among partners. For example, counselors working in schools will need to

consider the priorities of the leadership of the school system as well as the priorities of the community members, and be adept at communicating when there are differences in vision and needs. Ultimately, the only way to transform the systems we work in is to attend to multiple stakeholder voices and collaborate in a meaningful way to build a new vision that goes beyond our limited view of the system we work in (Mellin et al., 2015).

In terms of future research possibilities, the outreach program could be adapted depending on the level of educational fluency of the immigrant parent participants. Some Latino immigrants, for example, have college degrees from their home countries and might like to move beyond the basics to a more detailed understanding of post-secondary education in the U.S. In addition, the Bryan and Henry (2012) model is relatively recent; future research can still illuminate the strengths and opportunities of this partnership model. One obvious strength of the Bryan and Henry model is its focus on process and collaboration, which allows researchers and practitioners with interests in different populations or content areas to adopt it for practice. The "lessons learned" in the current study only underscore the way that a suitable model for partnerships and outreach can strengthen community-based research collaborations when identified and used in advance.

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Outreach and Recruitment Services Program Review

Evergreen Valley
College

Spring 2010

Mission Statement for the College

With student learning as our primary focus, Evergreen Valley College's mission is to empower students to expand their human potential and to succeed in a global, multicultural society. We prepare students of all ages and backgrounds for balanced and productive lives, so they can ultimately improve the workforce and quality of life in our communities.

Mission Statement for the Program

The mission of the Evergreen Valley College Outreach Team is to extend educational opportunities and access to higher education to all segments of the local community, particularly those who have been traditionally underserved. We are committed to providing accurate and timely information, matriculation services and application assistance for financial aid. Further, we are committed to providing bilingual (Spanish/ Vietnamese) and culturally sensitive customer service that demonstrates respect for other cultures, economic backgrounds, and life experience.

Program Description

Evergreen Valley College is committed to reaching out to residents of our local communities to provide access to higher education through a variety of services, on and off campus. These services include multi-lingual college information, assistance with admissions and financial aid applications, assessment, orientation, educational planning, and registration. Other services include presentations, workshops, campus visits, and campus tours. Through partnerships with local high school districts, community agencies, and universities, the College is able to work with traditional and non-traditional students who are interested in certificate and degree programs as well as those who want to transfer. It also works with immigrant adults, many of whom start as English language learners, who want to begin or continue their education.

Currently Outreach and Recruitment efforts are provided through these individual programs:

Early Admission Program (EAP)

The Outreach Team works with high school students from service area to assist them in completing all the necessary steps to becoming a registered student prior to their high school graduation. In fall, prospective high school students interested in attending EVC are invited to attend an informational session and application workshop. Students who

complete the admissions application are then invited to take assessment test. Student who complete both these steps by early April are then invited to attend the Day at The Green, a new student orientation and registration event. Follow-up and support to prospective students continues throughout the summer.

Day at The Green

Freshmen orientation offers incoming students the opportunity to discover more about their new campus, learn about resources for academic and personal success, and become acquainted with faculty and staff. They will learn from current students personal experiences, find out about college academic requirements, and get assistance from Counselors on selecting course options for the first semester. Above students will receive priority registration for your Summer and Fall 2009 classes! The orientation also provides a special session for parents where they too will learn about EVC's academic programs and student support services.

EOPS Outreach

In 2009-2010 adverse actions caused by the state's economic crisis forced the EOPS director to significantly reduce outreach services. On a limited basis, the EOPS recruiter provides specialized assistance to prospective students who meet EOPS eligibility. In 2010, EOPS lost its fulltime outreach specialist as a result of retirement; however, replacement was not feasible due to the state's 49% funding reduction. Additionally, EOPS/CARE was mandated to reduce the student service cap by almost 50%. SOMOS Mayfair Partnership

The Mayfair partnership is designed to reach basic skills/ESL and immigrant working adult students who reside in the Mayfair community area. College representatives work with families in this community to create college awareness and provide access to services, programs, and courses offered by the College. Application workshops, assessment and academic advisement and ESL instruction is offered directly on-site.

Outreach, Advocacy and Services for Spanish Speaking Immigrant Students (OASSSIS)

The mission of the OASSSIS Program is to proactively outreach to immigrant students and provide them with the resources necessary to excel at our college. Our focus is Spanish-speaking students in need of basic skills training and English as Second Language learners. Through a partnership between Somos Mayfair and EVC, staff from Somos Mayfair is housed on campus at the OASSSIS office and is assigned to provide specialized outreach to families in this community, through informational sessions, classes and workshops at their local site. In addition to servicing the community, staff provides informational session on AB540 to students from ESUHSD and SJUSD.

Cal SOAP (California Student Opportunity and Access Program)

Cal SOAP program works in partnership with colleges and universities to help increase student success and accessibility to higher education by providing comprehensive academic preparation and motivation support programs. Students and parents participate in Cal-SOAP activities beginning in the 5th grade and continuing through their transition to college services. Middle school and high school activities include college and academic advising, academic tutoring, and programs such as “I’m Going to College,” “College: Making it Happen,” “Cash for College,” and “Transfer: Making it Happen and Higher Education Week.” Although Cal SOAP is administered by UC, Santa Cruz, program staff form part of EVC’s outreach team because their headquarters are housed on campus.

Bridge to Transfer

In partnership with Cal SOAP, college representatives work with high school students who are interested in transferring to a university but may not be ready for admission to a four year institution. At Evergreen Valley College students are assisted by personnel at the Transfer Center to ensure that they understand transfer requirements, complete appropriate course work, prepare a Transfer Admissions Agreement (TAA) and seek out scholarships, financial aid, and other support services available for transfer students.

Concurrent Enrollment

The Concurrent Enrollment Program allows high school students to take courses at Evergreen Valley College. This program is provided for high school students to experience college classes for enrichment or personal growth.

Financial Aid

The Financial Aid outreach services are designed to disseminate information on federal state, and private scholarship opportunities. Financial Aid Outreach specialist provides presentations and conducts application for students and parents at high schools, community agencies, and on campus. As a member of the EVC outreach team, the outreach specialist also works in partnership with Cal SOAP to coordinate and implement “Cash for College” activity.

Student Ambassador Program

Evergreen Valley College is committed to creating a welcoming community environment on campus. To help foster this environment, the Student Ambassador Program helps promote community through its diverse members who through their experience reach out to other students with similar backgrounds. Under the direction of the Outreach

and Recruitment Specialist, Ambassadors are assigned to conduct tours, assist with admissions application workshops and conduct outreach presentations.

List of Staff and Titles

Outreach Team

Irma Archuleta, Vice President of Student Services
Octavio Cruz, Dean of Enrollment Services
Rosa Pereida, EOP&S Outreach Specialist*
Beverly Stewart, Outreach Counselor*
Ingrid Rottman, Outreach and Recruitment Specialist
Annette Ruiz- Esparza, Financial Aid Program Specialist
Sonia Ramos, Director of Cal SOAP
Felicia Nance, Assistant Director, San Jose Cal-SOAP
Lupe Vigil, Student Office Assistant

Student Ambassadors:

Cesar Cazares	Stephanie Puente
Daniel Choi	Scott Rottman Jr.
Angelica Del Rio	Jeremy Rullan
Yesenia Garcia	Alain Tran
Chris LaRussa	Cecilia Virgen
Christie Martinez	

External Contributing Factors

There have been a number of external, off-campus, factors that have impacted and will continue to impact the manner in which the College provides outreach and recruitment services. The following are the most salient:

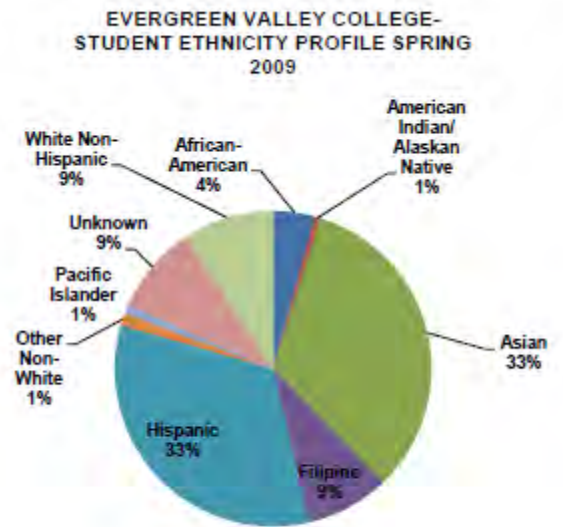
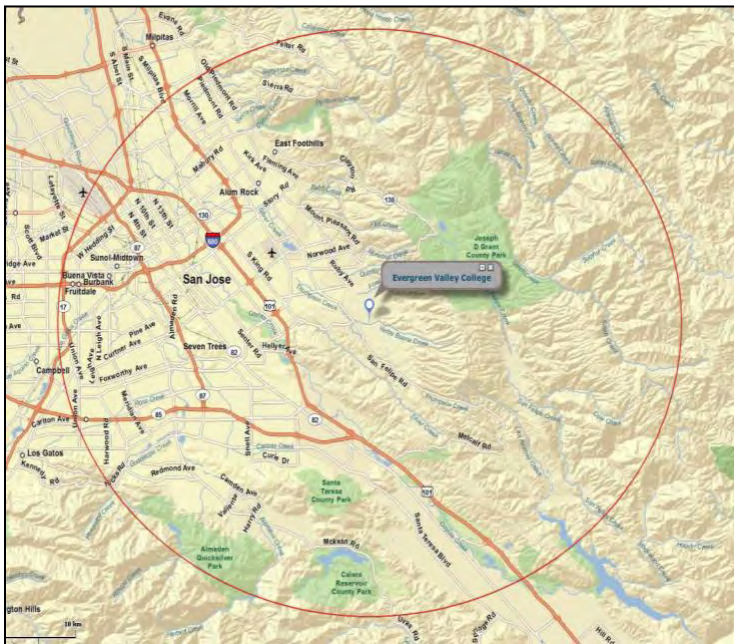
Economic Crisis in California

In spring 2009 California’s economic slump coupled with the nation’s recession created unprecedented budget cuts to all community colleges. Surprisingly, the most affected by these cuts were the categorical programs which encountered considerable funding reductions in 2009-‘10. Matriculation received a 65% cut, EOPS/CARE a 49% reduction, DSP a 36% and CalWORKS 32%.

Impact: At this time there is no concrete information on the 2011-‘12 budget, however according to early projections this fiscal cycle is estimated to be the more devastating than present year.

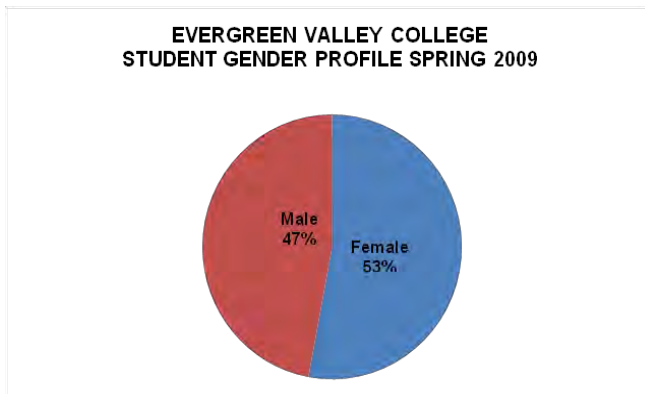
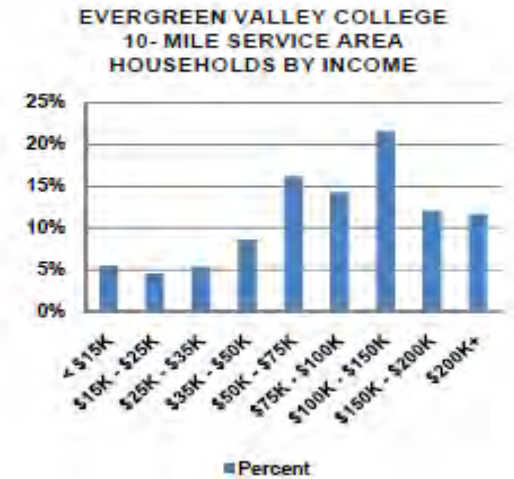
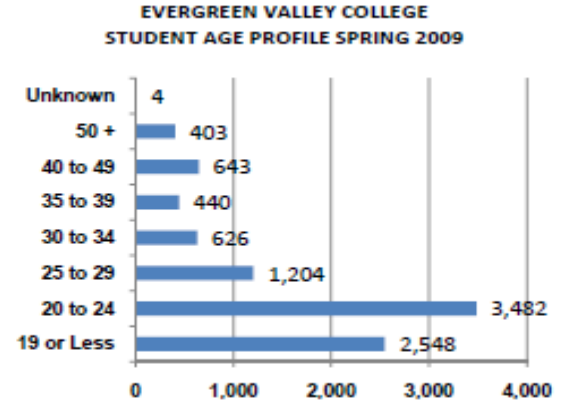
Demographics:

College Service Area: 10-Mile Ring



External Scan Data Ethnicity / Income / Age / Gender

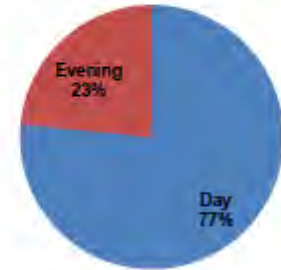
Statistic	Service Area	State
Population Growth	0.74%	1.01%
Household Growth Rate	0.69%	0.92%
Median Age	34.2	34.3
Median Household Income	\$90,315	\$61,614
Per Capita Income	\$35,784	\$28,199
Race/Ethnicity		
White Only	41.7%	54.5%
Hispanic	37.1%	38.3%
Asian Alone	28.1%	12.2%
African American	3.1%	6.2%
Native American	0.7%	0.9%



Internal Scan Data / Residency

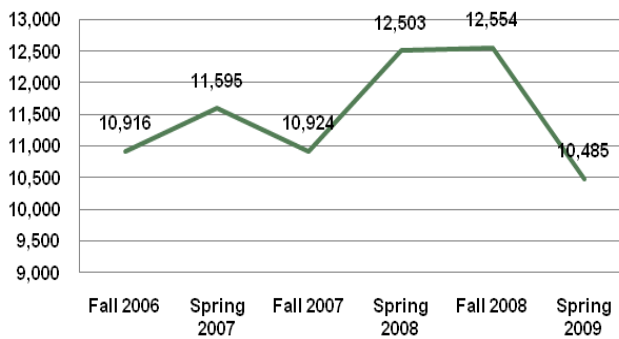
EVERGREEN VALLEY COLLEGE STUDENT CITY OF RESIDENCE FALL 2008	
Fremont	66
Gilroy	92
Milpitas	246
Morgan Hill	166
Other	1,720
San Jose	10,184
Santa Clara	80
Total	12,554

EVERGREEN VALLEY COLLEGE
TIME OF DAY DISTRIBUTION
SPRING 2009

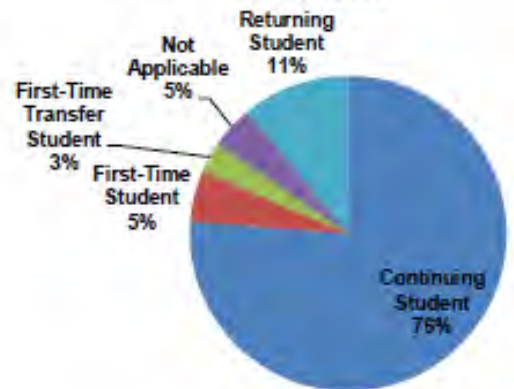


Internal Scan Data / Enrollment

EVERGREEN VALLEY COLLEGE
STUDENT ENROLLMENT



EVERGREEN VALLEY COLLEGE
STUDENT ENROLLMENT STATUS
SPRING 2009



Demographics:

The most significant shift in the K-12 Service Area population is that of ethnicity. In less than 28 years (1981-2009), it has gone from a traditional majority population with 56% white to a “new majority population with 69% students of color. During the same period of time the African American population declined from 8% to 3.1%, and the Latinos increased to 37.1% . This shift in ethnicity also reflects an increasing immigrant population and English language learners.

Locally a similar demographic pattern exists. The population of the city of San Jose is comprised of 34% Whites, 32% Latinos, 30% Asian, 2.6% African American, and 1.5% Native American. The College’s student population is yet more revealing with Whites composing only 16% of the student population; Latinos 29%, Asians 26%, African-Americans 5%, and Native Americans 2% make up the balance with 10% Unknown or Not indicated.

The College demographics will continue to shift; the main feeder high school districts reveal a continuation of the trend. The East Side Union High School District (ESUHSD) with a student population of 25,433 is the College’s largest feeder district, and of those students 46% are Hispanic, 27% Asian, 12% White, 9% Filipino, 4% Africa American , 1% Native Americans, and 1% Pacific Islanders. The second largest feeder district for the College is San Jose Unified School District with a population of 8198; Hispanics comprise 56% of this population. The remainder of the high school population is 16% Asian, 35% White, 4% African American, 2 % Filipino, 1% Native Americans, and 1% Pacific Islander. Of each of these populations, a large part is English learners.

Also of significance is the number of students in the College’s major feeder districts that are on free or reduced lunch program because often times they are the most vulnerable in that they have more obstacles to overcome. In the ESUHSD over 32% of the students are eligible for the free/reduced lunch program while in the SJUSD 31% fall in this category. Fortunately, these students are eligible for financial aid; however, they must be legal residents and be willing undertake the daunting process of filing a financial aid application.

Of the language learners in Santa Clara County, 65% are Spanish speaking. English learners in the ESUHSD number almost 6500 or 25% of the student population. The number of English learners in the SJUSD number 8017 or 26% of that K-12 population.

Summary of State and Local Demographics					
Ethnicity	CA K-12	SAN JOSE	ESUHSD	SJUSD	EVC
African American	8%	3%	4%	4%	5%
Asian	11%	30%	37%	16%	30%
Hispanic	47%	32%	46%	56%	29%
White	33%	34%	12%	35%	16%

Impact: The shifting demographics in the state, city, local K-12 school districts, and college presents the College with the challenge of successfully reaching and serving these new majority students in a way that respects, honors and values their culture, language, along with their life experiences.

BFAP (Board Financial Aid Program)

In 2007-2008, Student fees were increased from \$18 to \$26 per unit, with full knowledge that this would adversely impact many students and actually prevent the lower income students from attending community college. In order to offset this impact, the State redirected \$38 Million within the community college budget for financial aid outreach and improved administrative capacity. Per an initial report to the California Legislature dated April 2004, a total of 1260 staff were hired (an average of almost three persons per campus) and 470 (37%) of them engaged specifically in financial aid outreach activities Evergreen Valley College was able to hire three new staff members Chancellor’s Office shows the College actually increased the number of BOGWs to 5656 (08-09) to with the BFAP allocations. While some of them engage in financial aid outreach activities, there is no one specifically assigned to that responsibility.

The District has provided recent figures indicating that over a ten year period, Evergreen Valley College number of Board of Governors Waiver (BOGW) grew from 4217 to 5656 (a growth of 25%). During that same period, Pell Grants increased from 1247 to 2492, an increase of 50%.

Based on initial information recently provided by the State, Evergreen Valley College had 2492 Pell Grant Recipients (federal) and 5656 Board of Governors’ Grant Waiver

(state). Given these numbers and enrollment figures of approximately 9000 students per semester, these are substantial portions of the student body.

BFAP Outreach Outcomes				
BOG Waivers				
2004-05	2005-06	2006-07	2007-08	2008-09
5511	5346	5164	5123	5656
Pell Grants				
2004-05	2005-06	2006-07	2007-08	2008-09
2065	1929	1937	2095	2492

Impact: Although BFAP resources have resulted in positive increases in the numbers of students that the College serves through its financial aid program, the growing need of students who qualify indicates a need for a more strategic and intentional effort at reaching, assisting and supporting these students to be successful.

CAHSEE (California High School Exit Exam)

Beginning with the Class of 2006, all public school students are required to pass the CAHSEE in order to earn a high school diploma. Students begin taking the exam in the 10th grade and every year following until they pass, or not. According to information posted on the website for the California Department of Education for the ESUHSD, the greatest percentages of students who pass are in the 10th grade (78% for English/Language Arts and 79% for Math). Students who have not successfully passed by their senior year usually experience much lower rates of success when they take it; only 26% pass English and Language Arts and only 30% pass Mathematics. In real numbers, 1278 seniors had not passed English and 1146 seniors had not passed math by December 2006. (Appendices G₁ and G₂)

Further review of the reports shows Hispanic and Asian Pacific students, English Language Learners, and economically disadvantaged students as having the greatest failure rate in the tenth grade testing; these numbers remain consistent through to senior testing. It would seem intuitive that the failing students more than likely fit all three of these categories which create the obstacles for the passing of the CAHSEE; failure to address the issues at the K-12 levels leads to further difficulties for these students.

Although these students are given other opportunities, their situation presents serious challenges. First, students without a high school diploma are not eligible to apply for financial assistance; they must first take and pass the Ability to Benefit (ATB) test. This is often the first barrier that keeps many of these students from even considering going further with their education. They are academically under-prepared and often times English language learners. Many are immigrants and are unfamiliar with higher education with no immediate role models to rely on.

Impact: This reality has serious implications on what the College needs to do in reaching out and recruiting these students. How do we convince students who feel beaten down by the system and who must overcome language, economic and academic barriers that they can succeed in college? What services need to be in place, what curriculum and what academic support is needed and can be provided? Students cannot be brought on campus to fail; appropriate assessment, counseling, educational programs, and a comprehensive approach to retention needs to be in place.

AB 540

In October of 2001, Governor Gray Davis signed into law Assembly Bill 540 which allows undocumented students who meet specific criteria to be exempt from paying out of state tuition fees. As can be seen from the requirements below, for AB 540 students, the right to pay in-state tuition is based on high school attendance and not residency. To be AB 540 eligible students must have attended a CA high school for a minimum of 3 years (not consecutively), graduated from a CA high school with a diploma, GED or an equivalent thereof and complete an affidavit (available at A&R) declaring that they are in process of establishing residency or will do so in the near future.

Note: Passing CAHSEE is not required for exemption from nonresident tuition for students who earned a GED, and according to legal opinion cited in the District report entitled, "The AB 540 Student and Legal History," a student (other than a non-immigrant) who attends high school for three years in California and receives a certificate of completion from a California high school. Exemption from nonresident tuition is based on Education Code section 68130.5.

According to a District report which was presented to the Academic Senate in March 2007, it is estimated that 5000 to 8000 undocumented immigrants between the ages of 14 to 20 reside in California. Given the high percentage of Latinos in the area, it stands to reason that a significant number of them live locally; however, there is still a high

degree of hesitancy among these individuals to make themselves known. However, in 2009 -2010 there has been a demand from service area high schools requesting information on services specific to AB540 students. Similarly, we are seeing an increase in admissions applications from AB540 students who being given directly to our general outreach specialist. Such actions are an indication that students are hearing through word of mouth and from current students about our services and the sensitivity in which we work with unprotected students.

Since AB 540 does not provide financial aid to undocumented students, those who need financial assistance must look for scholarships that do not require legal permanent residency or U.S. Citizenship. Besides private scholarships or sponsorship the only real hope is The Federal DREAM Act which will give certain undocumented students who have graduated from high school and gone to college in the United States a path towards legal residency.

Impact: The major implication of this situation for outreach is the need to more adequately inform and assist those who qualify to take advantage of this opportunity. The way in which the information is shared and students are treated will be critical in having additional students come forward. There is also a need to have trained bilingual (Spanish/English & Vietnamese/English) outreach personnel to provide these services. Currently such services are available through the help of SOMOS Mayfair staff.

Foster Youth

Foster youth as a special population in higher education is relatively new. According to available data there are 75,000 children in California that have been removed from their homes due to abuse or neglect and placed in the foster care system. A report by the Institute for Higher Education Policy stated, "...by definition foster youth have been subject to two traumatic experiences; the neglect or abuse that brought them to the attention of the authorities and the removal from their family. Some are traumatized a third time by the treatment they receive while in the foster care system."

Consequently, their educational achievement statistics are staggering. A recent study indicates that 75% of foster youth functions below grade level, 83% are held back by the third grade, and 46% become high school drop outs. In addition to stunted academic development, foster youth also are often emotionally fragile and do not achieve the

level of adult skill and maturity needed to succeed in college; fewer than 10% enroll in college and of those that do, only 2% graduate.

Basic Skills/ESL & Immigrant Education

In California, our immigrant population continues to grow. In recognition of the growing need for basic skills, English as a second language, and immigrant education, the State Chancellor's Office has made substantial monies available to community college districts for the purpose of developing programs and services that meet this need.

Another reason for this shift in focus is the Statewide Academic Senate approval of raised graduation requirements in English and in Math for obtaining an Associate Degree. It became obvious that in order for students to meet the higher standards and obtain an Associate Degree, there is a great need to increase student success in basic skills and ESL classes, which serve as gateway courses to the college curriculum; these needs would have to be addressed.

In 2006-07 the District received \$401,540 for basic skills/ESL and immigrant education; in 2007-08, the district will receive \$388,351 and for 2008-09 the projected amount is \$357,445. Part of this funding is used by the District, and the remaining balance is equally distributed to each college. In 2008-'09 and 2009-'10 funding cycles EVC received \$100,000 allocation to continue basic skill education services to ESL and immigrant students.

Evergreen Valley College has decided to commit a portion of the funding to Instruction and another portion to Student Services. In Student Services, money was spent on outreach and counseling. Outreach services were provided through a partnership with the Mayfair Improvement Initiative, and counseling services were provided by a bilingual counselor primarily off-campus. These services will continue and will be more widely publicized through enhanced marketing. In fall 2008, submitted a Basic Skills/ESL five-year plan to the Office of the State Chancellor. The plan was prepared by the VP of student Services in collaboration with the VP of Academic Affairs and supported by the President of the Academic Senate.

Impact: The availability of these resources presents a unique opportunity for the College to reach out to basic skills, ESL, and immigrant students; strategic and intentional planning by Student Services and Instruction is critical.

External On-Campus Factors

MAAS Report improve

In 2009-10 a report prepared by MAAS report revealed that EVC needs to do a better job of reaching out to specific target populations. Based on their data, EVC needs to do a better job of reaching out to the immediate surrounding community and must also reach out to white and Filipino students. Evergreen Valley College has a newly refocused effort to only recruit students from our designated local service area high schools. This approach has yielded significant student enrollment and provided a vehicle to further develop relationships with the surrounding college community.

Impact: The fact that EVC is only 50% of the state average in reaching the members of its community indicates there is a huge potential that the College, and specifically Outreach and Recruitment, can work toward by setting gradually increasing benchmarks.

Strategic Planning

As a follow-up to the College-wide transformation initiative in Fall 2006, EVC President conducted another strategic planning session in conjunction with MAAS Facilities & Educational Master Plan in April 2010. The strategic planning process began with general presentation on the progress of the Accreditation Self-Study, a Facilities & Educational Master Plan update by MAAS representatives and a status update on the Achieving the Dream initiative. The event culminated with an all College dialogue where everyone was engaged in providing input on the major themes that came out of the self-study and the top five major findings that came out of the MAAS survey. In which all the work that had been done up to that point was finalized. The end result is that through the strategic planning process the values of the institution are identified with the input of various segments which form our campus community.

Impact: Although EVC is committed to honor the initiatives that have been set forth, the district's fiscal and staffing instability coupled with the state's economic crisis creates uncertainty among staff.

Partnerships

Partnerships are central to the values of the new leadership. Recognizing that it is going to take everyone along the educational pipeline to increase student success, the District and the College are looking to community and educational partners to create a college-

going culture. These partners include parents, students, community agencies, advocacy groups, K-12 educators, and university personnel.

Impact: The Fall 2006 and 2008 meeting with the ESUHSD principals and counselors set the stage for strengthening outreach relations with the District. The partnership with SOMOS Mayfair Neighborhood Center continues to flourish and our initiative to provide outreach services and educational counseling to families have been extremely successful. The Outreach Team partnered with California Student Opportunities and Access Program (Cal-SOAP) to work with those who chose EVC but are transfer-bound, and assisted in creating a "Bridge to Transfer Program." St Outreach services provided information at ESUHSD schools about Accel Middle College as well as providing an organized process for concurrent enrollment. The Early College High School Program entitled the College Connection Academy (CCA) entering its third year is a successful partnership between EVC, Franklin McKinley School District and San Jose East Side Union School District.

Internal Factors

Over the past year, a number of internal changes have affected and will continue to affect outreach and recruitment services. These include the following:

Database Development

Another major challenge in recruitment is the tracking of students as they progress through the various stages of becoming a student at EVC which includes application, assessment, orientation, financial aid, educational planning, and registration. Each program has been tracking students in their own way--if at all. The conversation began this year of possibly using Datatel to allow the team to track students, but in the end the team decided to go with the ACCESS database in MS Office. Initial work has been done with some preliminary information, but not much headway has been made.

Impact: Although the central recruitment database be in place early in 2007-08, the challenge remained because the tool did not interface with Datatel. The ACCESS database is user friendly tool and has many tracking elements that are not as easily accessible in Datate. However, since there is no interface staff must do double work and enter data into the ACCESS database and again into Datatel. order to enter if the Team is to believe that it can be an effective tool. It is also important that reports from CCCApply and Datatel be available to the

recruitment team (such as High School of Origin Reports, Applied but not yet registered, etc.).

One Stop Shop

In May 2007, Outreach and Recruitment piloted a One Stop Shop approach for students who had completed applications. Students were scheduled for assessment testing, followed by Orientation, and a counseling session. During the Orientation, students were given information about services and Financial Aid Staff presented students with information on the availability and process for those students in search of assistance. Counselors were available to review assessment scores and help students with class choice. Following the counseling session, students were able to access computers in the area and register for courses; a staff person was available to facilitate students with the process.

In 2008, the One Stop Shops were modified to include an online orientation and registration. A student completes the orientation online after they are prompted to sign up for an assessment and program planning session. The One Stop Shop sessions are offered both in day and evening hours, each session is anywhere between 3-5 hours long. The sessions offer both ESL and EFL assessment. Students who attend the sessions are assessed and then directed to a classroom where a counselor assists them in interpreting their assessment scores, offers advisement and helps them to create a class schedule. Once the students have their schedule set they move on to the final step which is registration. The students have the option to go home and register on their own via s MyWeb or phone registration or have the A&R staff register them for classes.

The One Shop Stop is beneficial to students, for they are helped through the admissions process step-by-step all in one day and one place; the following semester, students are familiar with the registering process and WebReg, so they need little help. The advantage for the College is the students come on campus, receive important information and leave a registered student; the One Stop Shop also eliminates some of the chaos of the normal orientation and application process, as there are fewer or no last minute walk-in students added to the group resulting in less overbooking for counselors and less “running around” for students and staff. As the One Stop Shop was a piloted idea, there are some logistics that will need to be addressed to make the approach as efficient and successful as it should be.

The One Stop as I know it consists of after a student completes the orientation online they are prompted to sign up for an assessment and program planning session. When they attend the session they are assessed and then directed to a classroom or conference room where a counselor assists them in interpreting their assessment scores

and provides advisement on what classes the student should register for the following semester. I believe that instructions on how to use MyWeb and the phone registration system is also included in the counselor's presentation but I recommend we get Bev's input on this part.

Impact: The One Stop Shops provide an outstanding mechanism by which new student can benefit from the entire matriculation process in one full sweep. The challenge is how to streamline the process further in order to reduce the time length of the session, especially the ESL One Stops which sometimes last five hours.

Student Learning Outcomes (SLOs)

Student Learning Outcomes (SLOs) remain a challenge for students participating in outreach and recruitment activities because they come in contact with Outreach staff in a myriad of settings from a casual contact at a fair to a more structured environment such as a presentation or campus tour. This area, along with other student services, is committed to developing more meaningful SLOs that fit this activity. This process is currently underway, and is in line with goals and objectives established by the SLO subcommittee. Using the process and template recommended by the SLO subcommittee, Student Affairs programs and services will rewrite SLO's to include measurable outcomes and identify the assessment tool that will be utilized to measure such outcomes. The goal is to have this process completed before fall 2010. Ideally, programs should undergo two full cycles of SLO assessment and analyses, so that by year three a program has gathered significant data relevant to SLO outcomes and which can be utilized for program review.

Establishment of Baselines:

Baseline Data was reviewed at the annual Outreach and Recruitment Retreat with targets set at a subsequent meeting. Target numbers are formulated by taking the average of the available data and calculating 10% growth for the 2007-08 academic year. Hopefully the database tool will assist throughout the year in tracking progress toward these goals.

Baseline and Targets for BFAP Outreach

BOG Waivers					
2005-06	2006-07	2007-08	2008-09	2009-10	
5346	5164	5123	5656	TBD	
Pell Grants					
2005-06	2006-07	2007-08	2008-09	2009-10	
1929	1937	2095	2492	TBD	

Baselines and Targets For Early Admissions Program									
School	Application			Completed EAP			Registered		
	2005/06	2006/07	2007/08	2005/06	2006/07	2007/08	2005/06	2006/07	2007/08
Andrew Hill	104	90	107	38	80	65	68	77	80
Apollo	18	74	51	12	6	10	18	6	13
Evergreen Valley	51	24	41	40	23	35	46	21	37
Foothill	19	54	40	7	8	8	8	7	8
Independence	102	90	106	53	58	61	66	51	64
James Lick	39	17	31	23	14	20	23	12	19
Mount Pleasant	57	54	61	35	45	44	40	39	43
Oak Grove	83	64	81	1	61	34	60	59	65
Piedmont Hills	37	3	22	25	3	15	32	2	19
Santa Teresa	24	18	23	18	14	18	17	13	17
Silver Creek	71	20	50	60	19	43	55	19	41
W.C. Overfelt	63	72	74	45	68	62	39	63	56
Yerba Buena	53	30	46	22	28	28	42	26	37
Total ESUHSD	721	610	732	379	427	443	514	395	500
San Jose Unified	25	26	28	0	19	10	19	17	19
C.C.O.C.	75	30	58	23	22	25	26	20	25
Milpitas	2	22	14	0	18	10	0	16	9
Total Other	102	78	99	23	59	45	45	53	54
Grand Total	823	688	831	402	486	488	559	448	554

Day at Green Statistical Information

***See Excel Attachment Files:**

Program Strengths

The Outreach and Recruitment Services area has undergone a major transformation in the last two years. As a result, the program has vastly improved its program strengths:

- Streamlined approach to the recruitment of first time freshman students at local area high schools
 1. Application cycle begins in late fall similar to CSU/UC model
 2. Assessment tied to application workshop at high school location
 3. Improved on-site technology at East Side Union High School District (E-Compass)
 4. Annual (May) Day at Green – Freshman Orientation standardized
 5. Matriculation process is clear and transparent to college community via newly created outreach strategy
- Refocused effort to only recruit students from San Jose / Milpitas service area schools
- Partnerships with key areas has been defined (ADMISSIONS, ASSESSMENT, COUNSELING, CALSOAP, and FINANCIAL AID)
- Students now have a clear pathway from point of inquiry to enrollment in coursework
- Community networking has expanded to include high school principals, staff, and counselors
- Embraced early outreach model known as College Connection Academy with Franklin McKinley School District.
- Data reporting for all outreach activities and student tracking has been standardized via technology. Enrollment trend reports are now readily available.
- Outreach staff has a clear sense of direction for program goals and objectives
- Enrollment figures have grown significantly in the past two years.

Program Weaknesses

While there have been significant improvements within the Outreach Program, there remains room for improvement; there are key areas that should be addressed. The most important of these are limits on resources, staff, and time. Although the Outreach staff is comprised of one full-time employee, the ability to manage larger enrollments will become a problematic in future years.

The lack of stable funding and recent categorical budget cuts is the main hindrance to the overall health of the Outreach Program, for without these it is difficult to complete any long range planning. With proper funding, the staff may look to the types of outreach programs and activities that are successful, fund more of them during the year, and hire the staff necessary to host, improve, and expand these activities. At the present time, there is only one full-time outreach specialist (paid through general fund) assigned to oversee outreach and recruitment services. The second full-time outreach specialist position (paid through BFAP funds) is housed in the financial aid office and is assigned to do financial aid outreach on part-time basis. Additionally, due to limited counseling staff, the full-time outreach counseling position is assigned 70% to general counseling and only 30% to outreach.

Outreach conducted by special programs also decreased in 2009-10. In 2010, the state's fiscal crisis resulted in exorbitant reduction of state categoricals. EOPS sustained a 49% funding loss and a mandate to reduce the student service cap by almost 50%. These elements prevented both the replacement of the full-time outreach specialist who retired in spring 2010 and full-scale outreach to service area schools. Currently, EOPS's half-time outreach specialist position provides specialized outreach services to eligible students only on a limited basis. In fall 2009, the ENLACE outreach specialist was hired as EVC's Interim Director of Student Life, thus leaving the position vacant.

The lack of full-time staff leads to a myriad of problems. Principally, the challenge is attributed not to the lack of staff, but to reporting lines, which creates a problem in managing assignments and accountability. Presently, outreach and recruitment fall under the Dean of Enrollment Services, however only the full-time outreach specialist (paid out of fund 10) is a direct report. Both the outreach counseling position and the second outreach specialist (paid through BFAP) report to other managers.

Program Goals and Areas for Improvement

Clearly the following areas for improvement are the following:

- Budget for the implementation of a strategic plan
- Coordination of outreach activities of multiple programs
- Database for data collection/retrieval and student tracking
- Marketing materials to increase the College's profile in the community
- Strategic Plan direction, specific target, and the infrastructure for at least three years out.
- Revised SLOs for the assessment of student learning
- Increase number of students applying for BOGFW fee waiver as part of Freshman orientation

Fortunately, the organizational transformation initiative that engaged the entire college community in strategic planning provided a great opportunity for the Outreach and Recruitment Team to develop goals and address areas for improvement. This was done through the development of Commitments to Action (CTAs) in each of the three transformation initiatives: Student Centered, Organizational Transformation and Community Engagement.

Below are the Commitment to Action for the Outreach and Recruitment Program; several have been met and others are works in progress.

INITIATIVE: STUDENT CENTERED

Access

- Provide representation to all high schools on a monthly basis for high impact schools and once a semester for low impact schools (6-30-2008)

Curriculum and Programs

- Request, through the VP of Student Services, an Outreach Program Coordinator to provide early admissions services (9-30-2007)
- Offer Guidance Courses for Foster Youth and ILP parents (6-30-2008)

Services

- Provide one-stop services during May & June for fall enrollment (6-3-2008)
- Develop a survey for high school students to see what they would like to see offered at EVC (6-30-2008)
- Organize high school campus tours on days EVC offers events (ex. Kicks it Outside, Transfer Day) (6-30-2007)
- Increase access to ESUHSD students by having a presence on the East Side District's website (6-30-2007)

INITIATIVE: COMMUNITY ENGAGEMENT

Increase Visibility

- Enhance outreach visibility on a website that the outreach team controls and monitors (9-30-2007)

- Outreach team members will represent EVC at East Side Community Events. (6-1-2008)

Bring the College to the Community

- Outreach team members will offer assessment and application workshops at off site locations including, but not limited to, high schools, community schools, adult ed., and community organization (10-30-2007)

INITIATIVE: ORGANIZATIONAL TRANSFORMATION

Build Community

Fully participate in Kindercaminata 4-22-2010

Employee Development

Transparency and Communication

- Develop a fully integrated outreach plan with timelines, goals, and objectives and communicate this to the campus community (11-01-2009)

College of the Canyons Community Outreach Roadshow



Community Outreach Roadshow

Team Members

Tammy Bathke

Linda Clark

Renee Marshall

Wendy Ruiz

Wendy Trujillo

Community Outreach Roadshow

Team Mentor

Debbie Rio

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EXECUTIVE SUMMARY

Outreach is an important tool for community colleges. It serves to educate high school students about their higher education options. It builds important relationships with local businesses and it provides options to those looking to expand their skills in the workforce.

In 2007 the College of the Canyons Director of Outreach position was vacated and the decision was made not to rehire in the near future due to budget constraints. This left outreach up to individual departments or programs and created many instances where efforts were being duplicated. The lack of a coordinated outreach effort has led to missed opportunities for the college to introduce itself to prospective students.

It is the goal of this LEAP team to provide solutions that will coordinate outreach efforts, make obtaining outreach materials from the various student service departments easier and create materials that can be utilized by all departments wishing to represent the college through their outreach efforts. It is not the desire of this team to replace the Director of Outreach position with these solutions, but to bridge the gap until such time as a new director can be hired and to continue to function as support once the position has been filled.

We propose to obtain these goals through 3 main objectives:

Objective 1:

The creation of a resource center where outreach materials can be stored, maintained and utilized

Many departments and programs on campus create and produce marketing materials for their outreach efforts as well as purchase promotional items. The resource center will provide a place where these materials and promotional items can be sent for other departments and programs to use as well. For example, many staff members ask PIO for materials about the college and its programs that they can take with them to conferences or when they are attending events out in the community. PIO is able to give them general college publications but does not have access to Community Education, CWEE, RE-Entry, etc. materials that could supply valuable and more specific program information. Through the resource center, these staff members would have access to all materials and be able to pick and choose what information would be appropriate to take with them. Old promotional items that don't get used or otherwise would collect dust in storage would also find a home and possibly a use if distributed through the center.

Objective 2:

The creation of an outreach advisory council

The outreach advisory council's main functions will be to coordinate on-going outreach efforts, maintain the resource center, and update the COC general information brochure as needed. The council will be made up of individuals who utilize outreach as part of their position or department function. The council will exchange outreach ideas and share their upcoming outreach efforts/events with each other to make sure efforts are not being duplicated and opportunities are not being missed.

Objective 3:

The creation of a general college brochure that can be used by any department or program on campus

The brochure will contain basic information about the college, such as contact information, programs that are offered, extra-curricular activities including athletics, etc., in order to give prospective students a place to start but not overwhelm them. The brochure will contain a pocket on the back inside cover that can be used to customize the brochure insert to the department/program that is distributing them. Ideally we would like to use a photograph of our students on the cover and a photograph of one of the college's roads as the background to serve as a metaphor for the path/road/journey that COC has to offer to prospective students.

INTRODUCTION/PROJECT SUMMARY

Mission Statement

The College of the Canyons Community Outreach Roadshow provides resources for campus staff that participate in community outreach. The Community Outreach Resource Center, located in the Re-entry and Veteran's Services office, provides direct access to program and department outreach and promotional materials. The Community Outreach Advisory Committee works together to align outreach efforts on campus and in the community. The Community Outreach Roadshow provides the resources and collaboration to best maximize outreach efforts that teach the Santa Clarita Valley community what College of the Canyons has to offer.

The mission of this project will support the College's mission, vision, philosophy and strategic goals to:

- Assist students with diverse interests and needs meet their individual goals
- Support COC's dedication to being a leader in student support
- Maximize community and student access to programs, services and departments
- Promote a sense of community for staff that do outreach
- Provide resources to promote academic success, community partnerships, and personal excellence
- Work cooperative and strategically to coordinate and complement outreach efforts
- Create marketing materials to inform students, staff and community members about available student resources
- Improve outreach efforts in the community at large
- Support efforts that engage students in lifelong learning and academic empowerment and provide opportunities for personal growth and leadership development through student support programs

Vision Statement

The vision of the College of the Canyons Community Outreach Roadshow is to have a fully functional outreach center where all campus resources are represented. The Community Outreach Advisory Committee coordinates all community outreach efforts and creates a community of support for staff who engage in outreach. The Director of Outreach will chair the Advisory Committee and help to monitor outreach center materials.

Goals & Objectives

- Establish the Community Outreach Resource Center on campus
- Create supporting outreach materials, including flyers, brochures and an outreach DVD
- Support the Community Outreach Advisory Committee

Project Description

The first phase of College of the Canyons Community Outreach Roadshow will include the development of the Community Outreach Resource Center, the Community Outreach Advisory Committee, the development of a general information COC brochure and the enhancement of the COC programs and services counseling department informational handout. The second phase of the Community Outreach Roadshow includes the creation of a COC Outreach DVD where students from campus programs and departments will highlight their individual experiences with the services available at the college. The third phase of the Community outreach Roadshow will include the recruitment of a new Director of Outreach on campus.

Strengths

- Strong campus outreach efforts currently happening
- Staff support for continued community outreach
- Location of Community Outreach Resource Center determined (Re-entry and Veteran Office)
- Over 50 COC staff members have expressed interest in joining the Outreach Advisory Committee

SERVICES

The Community Outreach Roadshow will provide campus resources for College of the Canyons staff that are engaging in community outreach. The core values of this project include communication, connectivity, and supporting the development of COC as a leader in the Santa Clarita Valley and the community college system at large. The Community Outreach Roadshow will endeavor to be a model of outreach efforts at the community college level. Most of these opportunities will be self directed and available at no charge. The evolution of these services will evolve over three phases.

Phase I – Coordination of Outreach Efforts

Phase I concentrates on creating a Community Outreach Center and Outreach Advisory Committee on campus. A location of the Outreach Center has been established in the Re-entry and Veteran Services office on campus. The Outreach Center will be a one stop shop for all outreach staff on campus. Each department, program and student service will be able to house marketing and promotional materials in this office and all materials will be in display cases that allow for easy access. The goal of the Outreach Center is to provide staff an opportunity to access other outreach materials beyond one's program/department. For example, if the director of the TEACH program is going to Saugus High School to discuss careers in education, she may choose to stop by the Outreach Resource Center to pick up materials such as: the COC general campus brochure, the counseling department handout on campus program, services and resources, information on financial aid, and some pens from PIO to distribute to the high school students that attend her talk. The Outreach Center will allow staff to choose materials that they

feel are needed by the group they are doing outreach with, without having to contact other departments or programs on campus to request the materials. The materials will be at one's fingertips.

In addition to the Community Outreach Center on campus, the Outreach Roadshow has started to spark staff interest in an Outreach Advisory Committee. The Outreach Advisory Committee will hold its first meeting in Fall 2010 and plans to meet quarterly. The Outreach Advisory Committee will be a place where staff who engage in outreach can coordinate their efforts, introduce new programs and services available to the community, and can share new marketing and promotional materials. The Outreach Advisory Committee will be open to anyone interested. Initial campus survey results have shown that there are over 50 staff members at College of the Canyons who are interested in joining this committee.

Phase II – Development of Outreach Materials

Phase II of the Community Outreach Roadshow will include the development and enhancement of outreach materials. The Outreach Roadshow team has gained permission from the counseling department to enhance the current Programs, Resources and Support Services handout (see appendix) to include additional programs on campus, and information on individual websites and contact numbers. In addition, the Community Outreach Roadshow team has developed a general campus brochure that has campus contact information, department listings, student services, and support services listed. In this brochure there is a pocket where individual departments or programs can create a bookmark sized insert to highlight their specific outreach information. The bookmarks can be easily inserted into the brochure pocket, and multiple bookmarks can fit into the pocket. The Community Outreach Roadshow team has developed an insert that can be used by all campus programs and departments if desired. The true second phase of this project will be the COC Community Outreach Roadshow DVD. Our team envisions a DVD that would feature current students from a variety of programs and departments on campus to highlight what COC has to offer. We plan to use real students who have been leaders in the designated programs and departments to share their testimonials on camera. We plan to work with the Outreach Advisory Committee to develop the DVD during the 2010-2011 school year.

Phase III – Recruitment of Director of Outreach

A third phase of this project is planned to continue supporting the efforts of the Community Outreach Roadshow. When the budget allows, the Community Outreach Roadshow supports the recruitment of a new Director of Outreach on campus. The Director will be in charge of chairing the Outreach Advisory Committee, assisting in the development of outreach materials, developing the Outreach Center on campus (and marketing it to campus staff), and engaging in outreach efforts in the community at large.

MARKET ANALYSIS SUMMARY

The Community Outreach Roadshow will be a useful resource for many department personnel on campus, yet will not be a financial burden for campus programs and departments. Staff who utilize the Outreach Center or Outreach Advisory Committee will contribute time but not financial resources to this project. As the program starts up, departments will supply the Outreach Center with materials they already have or that can be created with minimal

financial resources. The location of the Outreach Center was determined due to available space and easy accessibility. It was also chosen to be in an already existing office on campus so not to incur additional costs. The Outreach Center will need to be occasionally restocked, but we do not foresee the need to have the area staffed.

Users will typically belong to one or more of the following main groups:

Faculty and Staff -- This represents the largest group of potential users primarily because of the outreach efforts faculty and staff engage in.

Students -- This group will also have access to the outreach materials due to the Center's location in the Re-entry and Veteran Office.

Members of the Public -- This group will not directly access the Outreach Center, but will have access to outreach materials through the efforts made by Outreach Advisory Committee members.

STRATEGY & IMPLEMENTATION

Marketing Strategy

Our marketing strategy will involve participation of the Outreach Advisory Committee. We plan to have committee members spread the word about these outreach services to their respective departments and programs.

SWOT Analysis

Strengths

- Many departments and programs already engage in outreach
- Dedicated COC employees
- Over 50 staff members expressed interest in joining the Outreach Advisory Committee
- Outreach Center location has been determined

Weaknesses

- Uncoordinated outreach efforts
- Maintenance of outreach materials
- Unavailable funding to hire a Director of Outreach

Opportunities

- Many programs and services available to students on campus
- COC supports community outreach

Threats

- Limited funding for the creation of marketing materials
- All marketing materials distributed will need to be up to date
- Some staff do not see a need for outreach when COC is at its highest enrollment

Competition

- We do not foresee competition on this project

Methods of Marketing

- Advisory Committee Members
- Campus Email

Marketing Goals

We plan to get the word out about the Community Outreach Roadshow by asking Advisory Committee members to speak about the Outreach Center and available materials at their department and staff meetings. We will also send out an email to the COC community in Fall 2010 to invite them to use the Outreach Center and to invite interested parties to the Outreach Advisory Committee quarterly meeting.

Marketing Budget

The initial marketing products have been designed by team members and, in cooperation with the Public Information Office, the production costs of the general COC brochure (and insert) and Campus Programs, Resources and Services handout will be minimal. We anticipate that the costs for the department or program inserts (into the general brochure) will be minimal as well. Individual programs will assume responsibility for updating or creating their own marketing materials that will be contributed to the Outreach Center.

Service Development

The overall development of the Community Outreach Roadshow is based on the needs of College of the Canyons. Even in tight budget times, outreach is an essential component to the success of College of the Canyons and the students we have on campus. COC is committed to being leader in the Santa Clarita Valley community and outreach is one way that we can support our community by providing the resources they need.

Who Benefits

The COC community as a whole will benefit from this project. Students will benefit because they will have a greater awareness of what is available at COC. Staff will benefit because outreach efforts will be coordinated and staff that do outreach will allocate their outreach time more efficiently.

Outreach Advisory Committee

The initial committee is formed based on those who expressing interest from our team survey. We currently have over 50 COC staff members who have expressed an interest in joining the Outreach Advisory Committee when it has its first meeting in Fall 2010.

MANAGEMENT SUMMARY

Currently the management of this project resides with our LEAP solution team. Our team is made of energetic, innovative team members with passion for the programs, departments and services that College of the Canyons has to offer. We anticipate the LEAP team will join the Outreach Advisory Committee and will fully implement Phase I and II of the project in Fall 2010. Phase III of the project will be explored as more financial resources become available to hire a new Director of Outreach on campus.

Support for this project will come from a variety of departments and programs on campus. The project is taking an inclusive approach where anyone interested in helping with or influencing campus outreach can join the Outreach Advisory Committee.

A survey (Appendix) was sent to the “COC-all” email distribution list to determine interest in the project. We received 139 responses to the five question survey, and the results indicated significant interest in outreach among those surveyed. The five questions asked are:

1. Do you believe there is a need for community outreach in your department or program?
2. Do you currently do outreach?
3. If so, what groups do you talk to?
4. Do you have any outreach materials that you distribute to the community?
5. The Outreach Advisory Committee is planning to meet quarterly; would you be interested in being part of the committee?

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are needed to see this picture.

Of those surveyed, 73% answered yes, and 27% answered no.

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are needed to see this picture.

Of those surveyed, 58% answered yes and 42% responded no.

In response to question three:

If (you do outreach) what groups do you talk to?

The responses varied. Groups mentioned in this answer included:

- High school students
- Community members (including local businesses, non-profit organizations, churches)
- Seniors
- Elementary and Junior High students
- College of the Canyons students
- City of Santa Clarita, VIA and Chamber of Commerce

Of all these groups, high school students were the largest outreach group, followed by general outreach to the Santa Clarita Valley community.

When asked about outreach materials, 42% of those surveyed said they have outreach materials that they distribute while doing outreach. This result supports the need for an all campus general brochure that can be tailored (in an cost efficient manner) for individual programs and departments.

Lastly, of those surveyed, over 50 people showed interest in joining the Outreach Advisory Committee for its quarterly meetings during the 2010-2011 school year.

Our LEAP team was concerned about sending out a COC-all survey and brainstormed ways to get quick responses. We decided to put all respondents (who were interested) into a raffle for a \$25 gift card to Buca de Bepo. We were pleasantly surprised to receive 139 completed surveys and we plan to use a gift card incentive for any additional surveys that we produce in the future.

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FINANCIAL PLAN

Unlike a typical “for-profit” venture, the COC Community Outreach Roadshow is not looking for ways to bring in profit. We have had some donations and financial support from the Re-entry and Veteran Services program for our initial start up costs. We anticipate that once the Outreach Center is up and running, costs will be kept to a minimum. We developed the COC general brochure to be created in color or (more cost efficient) black and white.

Initial Capital Outlay – Basis For Financing The Project

The costs of this program are minimal during Phase I and II. During Phase III the costs will go up significantly. Phase III will not be entered into until the College has the budgetary resources to hire a Director of Outreach.

Start-Up Funding

The Outreach Center will be housed in the Re-entry and Veterans office on campus. Our LEAP team has purchased display holders and racks to store outreach materials in the center. The anticipated impacts on district resources are difficult to quantify but are expected to include the following:

- Public Information and Graphic Design staff time to update marketing materials.
- RTVF staff time to develop and create an Outreach Roadshow DVD
- Staff time to participate in the Outreach Advisory Committee
- Facilities Department maintenance for office space
- Use of district facilities for the Outreach Advisory Committee to meet
- Use of district equipment and supplies

START-UP FUNDING COSTS

Projected Start-up Expenses

Item	Cost	
Adult Hourly Staff	\$9,500	
Adult Hourly Benefits	\$1,235	
Printing	\$500	
Desk	\$800	
Chair	\$250	
Computer	\$900	
Misc. Office and Meeting Supplies	\$500	
DVD	\$750	
	Project Budget Total	\$14,435

ON-GOING MAINTENANCE EXPENSES

The Outreach Resource Center should be staffed by an Adult Hourly for 20 hours per week (1,000 hours total per year). Additionally, there would be a need for a basic printing and office supplies budget and we anticipate that this budget will be \$1,000 annually.

RISK MANAGEMENT & REDUCTION

The most significant challenge presented by this project is:

- Lack of available funding for Phase III development of the project

Our team met in the early stages with Edel Alonso (counseling), Jasmine Foster (PIO) and Debbie Rio (Dean of Enrollment Services) to identify outreach needs at COC and in the community. When we met with these individuals, we were very clear in our intentions with this project. We want to coordinate outreach efforts that are already underway. We did not wish for this project to take the place of a Director of Outreach, but instead to assist those doing outreach with a coordinated effort until a new Director of Outreach can be hired once again. The distributed survey indicates there is support for this project from the general college staff population. Our team has shown a commitment to making campus outreach the best it can be and we are excited about the future of this LEAP project.

APPENDIX

SURVEY RESULTS

Outreach at COC

1. Do you believe there is a need for community outreach in your department or program?

Response Percent	Response Count
yes 72.7%	101
no 27.3%	38

answered question 139
skipped question 0

2. Do you currently do outreach?

Response Percent	Response Count
yes 58.3%	81
no 41.7%	58

answered question 139
skipped question 0

3. If so, what groups do you talk to?

Response Count 78
answered question 78
skipped question 61

Response Text

- 1 Assessment goes out to test HS students
- 2 Bowman HS
- 3 Everyone: HS students, community members, COC students
- 4 Local business and corporations, and special outreach to the nonprofit community
- 5 High School students
- 6 community members who attend on-campus events
- 7 MS society
- 8 Small Business organizations and community groups
- 9 Campus tours, public vendors.
- 10 College: Make It Happen, Discovering Careers, Skills for Success, First Year Experience, Career Pathways Events w/Hart District, Road Trip Nation, Junior High Summer Institute, Summer Enrichment, etc.
- 11 New students, reentry adults, high school students and parents
- 12 We typically participate in MajorQuest and College Day
- 13 Senior living homes, elementary school districts
- 14 Community ECE Programs and outreach to other school districts
- 15 Individual HS students, VIDA, Eden Ministries
- 16 high school seniors
- 17 VIA, Chamber, City of Santa Clarita, several others
- 18 Mostly High School Seniors
- 19 chambers, business networking groups, business support groups
- 20 Jasmine Foster (our community liaison) works with community groups and individuals from every area to promote the college.
- 21 City of Santa Clarita, local school administration, non-profits, print media etc. I attend community functions and serve on the board of directors of many local organizations.
- 22 High Schools
- 23 Outreach was done this year through the FYE program (part of Skills4Success) and was done at

local high schools. The faculty also meet monthly with their counterparts at local high schools and junior high schools.

- 24 I have gone to Hart High
- 25 Hart high school district schools
- 26 Junior high and high school
- 27 Youth Sports programs, local medical professionals (orthopedics, physical therapists, general health practitioners, chiropractors, etc), high schools.
- 28 High school programs; some businesses
- 29 Friendly Valley, afternoon with professors, Rancho Camulos docent
- 30 Business groups and high schools
- 31 High School students
- 32 High School Media/Music/Art departments in the Valley; CTE consort for the SCV
- 33 Unofficial COC Ambassador
- 34 Local high school special education students
- 35 Junior high school and high schools
- 36 Government, Business, Chamber, VIA
- 37 Princess Cruises, Boston Scientific
- 38 Adult Re-Entry students, Middle school and high school students at Discovery Day
- 39 Santa Clarita Food Pantry
- 40 current students, potential students, community members, faculty, staff
- 41 young families
- 42 local high school students and parents
- 43 High School students, interested college students
- 44 No groups, just people in the community who need interior design help or architectural drafting help.
- 45 Community directors through a directors committee; potential families; Week of the Young Child
- 46 High School Students and/or Parents
- 47 High schools
- 48 MSET sponsors outreach through several activities including Biotechnology (Jim Wolf), Acoustics Presentation (Antonio Nassar--physics), Star Party at CCC (Sepikas, Falconer-Astronomy), and other events and programs
- 49 Hart District, AAUW
- 50 Patients, families, schools
- 51 Local high school faculty and students
- 52 Sheriffs and the City. We would like to get our information out to the high schools
- 53 high school
- 54 I have an advisory in my department and I have spoken in local industry meetings. Recently, I haven't been doing that much. But someone in our department has been doing outreach for her program and usually includes our program.
- 55 jr. high and high school
- 56 High School seniors and parents; community organizations
- 57 We have a photographic advisory board. But not anything that reached out to high school students.
- 58 We do very little: junior high career talks. I need to do more and I have an idea I want to run past you.
- 59 High School, Hospitals, Other health care orgs.
- 60 Everyone who needs assistance in some way, while on campus
- 61 WorkSource Center clients, Goodwill clients, high schools, Single Mother's Outreach, high school ROP programs, local church job clubs, etc...
- 62 High school students and college students
- 63 We have a new welding trailer and are planning to use it for outreach to younger students.
- 64 High schools, Seniors, audience members
- 65 High schools, youth programs
- 66 Athletes, Coaches
- 67 Single Mother's Outreach and Children and Family Center, but we would like to partner with other companies in the area to receive cash donations
- 68 incoming high school graduates and 11th grade students

- 69 Career Fairs, High schools, and on site college activities
- 70 hospital nurses, our dept does high school students
- 71 High Schools and businesses
- 72 whole community, drive by flu shot
- 73 Psychology Club/Psi-Beta, Alpha Gamma Sigma, etc
- 74 public star party at CCC May 8, 2010
- 75 public star party at CCC May 8, 2010
- 76 With many of our classes being cut for this department (Distance Learning) there is not a need at this time for outreach. This may change in the future.
- 77 High school theatre
- 78 Parks and recreation, county, city, local recreation and leisure service groups, Y, boys and girls club etc.

4. Do you have any outreach materials that you distribute to the community?

Response Percent	Response Count
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yes 42.4%	59
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no 57.6%	80
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answered question 139

skipped question 0

5. The outreach advisory committee is planning to meet quarterly; would you be interested in being a part of the committee?

Response Percent	Response Count
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yes 37.4%	52
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no 62.6%	87
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answered question 139

skipped question 0

CERRITOS COLLEGE OUTREACH & RECRUITMENT PLAN

OVERVIEW: PROBLEM AND RECOMMENDATION SUMMARY

The problem(s):

- The college currently has a low yield rate (40%) of students who apply to the college, and then enroll in courses.
- There is little coordination between departments regarding ‘outreach’ activities. This leads to duplication of efforts, and a poor end-user experience (i.e. High School principals and counselors). Departments across Student Services and Academic Affairs operate in silos.
- Due to the lack of coordination, it is challenging for our high school and community partners to request information and services from the college. They must know individuals in all departments in order to secure services (i.e. School Relations, DSPS, Cerritos Complete, EOPS, Financial Aid, etc.), instead of a coordinated and streamlined approach. This negatively affects the College’s reputation in the community.
- A piece of the lack of coordination is the limited technological ability of the campus. For example, the College has had a Recruitment module within PeopleSoft since 2004, but it was never fully implemented and has not been used.

Recommendation Summary (see page 2 for details):

1. Convene an Outreach & Recruitment Committee to coordinate and lead efforts on the campus.
2. Relocate School Relations to the closed Welcome Center, to create a new ‘Welcome Center and School Relations Office’ in the Administrative Quad, adjacent to other college entry services – Financial Aid, Counseling, and Admissions.
3. Implement PeopleSoft Recruitment Module, and utilize an online interest form that will allow us to track and communicate with prospective students.
4. Conduct targeted outreach to student populations that will help meet the Student Equity Plan goals.
5. Increase training to campus community on outreach and recruitment, to ensure a coordinated approach.

Deliverables (see pages 3-4 for details):

- Create infrastructure for Outreach & Recruitment
- Meet Student Equity Plan Goals for ‘enroll in same college’ measure

RESEARCH & BEST PRACTICE

Students choice to attend college is influenced by four layers: (1) the individual student and their family (such as beliefs about college, financial resource, academic preparation), (2) the school and community (such as high school resources and information on college), (3) college location and characteristics (such as recruitment and marketing), and (4) the broader social, economic, and policy context (such as the impact of policy and practice on access/equity gaps) (Han, 2014; Perna, 2006; Perna, Steele, Woda, & Hibbert, 2005). Findings from a study focused on the application of Strategic Enrollment Management (SEM) principles to the community college setting contextualized this model, supporting that college recruitment efforts were positively associated with student application and registration timing, and eventual first-term academic performance (Wang, Ye, & Pilarzyk, 2014).

Providing a streamlined and purposeful outreach and recruitment effort is critical to engaging in SEM, which improves the student experience and transition to college (Han, 2014), and uses data to drive planning (Green, 2017; Jackson, 2008). Best practice in recruitment, as proposed by experts from the American Association of Collegiate Registrars and Admissions Officers (AACRAO), is based on an ‘art’ – building interpersonal relationships and engaging messaging, and a ‘science’ – using data for strategic planning, program planning, and individual work plans (Green, 2017). These practices should be based on an understanding of the enrollment cycle, starting with identifying and connecting with prospective students, through matriculation steps of application, placement, and concluding with enrollment - the yield of recruitment activities (Green, 2017; Jackson, 2008).

VISION AND PURPOSE OF OUTREACH & RECRUITMENT

The proposed outreach and recruitment plan for Cerritos College will build upon research and best practice to engage and coordinate the first three layers impacting college choice – the student and their family, the high school and/or community

agency, and the college context. The report outlines recommended steps to implement a strategic outreach and recruitment effort at Cerritos College, and is aligned to address the following areas of the college's *Educational Master Plan*:

Goal A: Strengthen the Culture of Completion

Goal A4. Evaluate and re-design college processes and policies to ensure they are student centered.

Goal A7. Promote Cerritos College as a successful transfer college through an array of programs and services designed to ensure all students entering the College can achieve their educational goals.

Goal A9. Improve students' front door experience in order to increase access and entry (onboarding).

The following plan is based on the following vision and purpose for Outreach & Recruitment at Cerritos College:

VISION

Motivate students to join the Falcon family by welcoming and admitting a diverse student population that is reflective of the community we proudly serve.

PURPOSE

Promote Cerritos College through a coordinated, informative and rewarding outreach experience. Prospective students will be assured that Cerritos College is a valuable choice to advance their educational and career goals. Outreach and recruitment efforts will increase awareness of and access to resources that support student success and foster a successful transition to Cerritos College.

IMPLEMENTATION STEPS

- 1. Open the Proposed Welcome Center & School Relations Office**
 - a. Relocate School Relations to the Welcome Center and Staff lounge location
 - i. Proposed renovation of the space, and new furniture, is estimated to cost \$50,000.00. Proposals for furniture and construction have been requested.
 - b. Hire an Administrative Clerk II to provide administrative support to the office, and allow streamlining of outreach activity scheduling. The job has been posted, and it is anticipated the position will go to the Board of Trustees on December 11, 2019.
- 2. Convene permanent O&R Committee.** Committee will initially focus on:
 - a. Draft SOPs to align business processes (see item 2)
 - b. Establish annual O&R targets/goals, and strategies to meet the targets/goals (with specific attention to Equity Plan and Disproportionally Impacted groups)
 - c. Establish annual outreach & recruitment calendar
 - i. Internal focus - messaging, deadlines, major events
 - ii. External focus – major events (I.e. Senior Preview Day, Cerritos Complete Info Night, Dept. Open Houses, etc.)
 - d. Create & implement annual O&R trainings for campus departments
 - e. Annual 'checklist' creation of what needs to be updated
 - f. Determine 'Peer' program feasibility/process
- 3. Develop online interest form**
 - a. Microsoft Forms – temporary solution ('work-around')
 - b. PS Recruitment – permanent solution
- 4. SOP's/Business Practices to develop:**
 - a. Contact/liaison database – create a process and database to store high school (HS) and community contacts (i.e. teachers, counselors, principles, program managers, etc.). Data base should keep track of current contact information, and tracking of contact made with individuals.
 - b. HS/Community Promotions – create a process to evaluate, assess, and improve College brand at recruitment locations. Examples include on-site visuals, brochures, etc.
 - c. Online interest form SOP – create a process and form that addresses the following needs:
 - i. Student interest/prospective Falcon – a general interest from submitted by prospective students.
 - a. PS Recruitment - Identify 'recruiters', process to contact students, and process to track contact.
 - ii. HS/community agency contacts requesting services/information – a general form for schools/community agencies requesting services.
 - iii. Identify point-person in departments to respond to requests (i.e. for presentations, department tours, etc.).
 - d. Branded 'Campus Connections' outreach messaging – create a process and timeline to standardize general outreach messaging to HS/community contacts.

OUTREACH & RECRUITMENT COMMITTEE – MEMBERSHIP RECOMMENDATIONS

The ongoing Outreach & Recruitment Committee is comprised of representatives from key internal stakeholders. The Committee will:

- Meet regularly to ensure coordinated action (i.e. monthly).
- Provide information and training to campus community on the outreach/recruitment process.
- Plan and curate email communication messages sent to prospects/partners.
- Annual review of outreach efforts (data), and planning for following year.

The Committee composition is recommended to be:

1. **Chair – Dean of Admissions & Records** (*or the point person for Strategic Enrollment Management efforts*)
2. Coordinator of School Relations
3. EPP – Director or designee
4. CTE programs –Health Occupations Rep.
5. CTE programs –Technology Rep.
6. Financial Aid - Dean/Asst. Director or designee
7. Equity Student Programs – Dean or designee
8. Counseling – Dean or designee (also in Orientation Comm.)
9. Faculty Senate Rep.
10. Public Affairs –Director or designee
11. IT - Director/ manager or designee

Ad Hoc members (1 representative each, will attend as needed): DSPS, OISS, AED, IRP.

PRIORITIZED RESOURCE NEEDS

The following resources are needed to fully implement alignment of O&R efforts.

Information Technology (IT):

1. Full implementation of PS Recruitment Module – building back end, establishing ‘recruiters’, building interest form and tie-in to PS, establishing queries to pull interest form data.
 - a. Update ‘recruiter’ profiles so have access to module/data
 - b. IT and security access for ‘dashboards’ for recruiters
 - c. Support to build web-based form that ‘deposits’ information into PS Recruitment.
2. Training on Recruitment module (PS consultant)
3. Phone routing system for general questions/calls to the Welcome Center

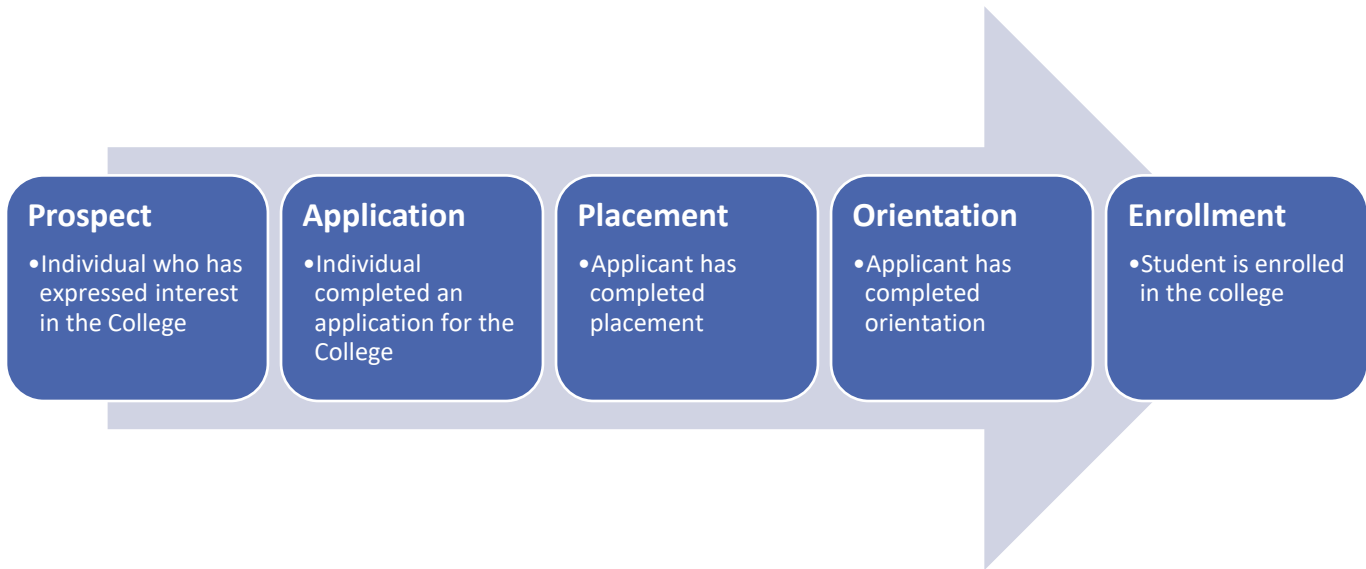
Institutional Effectiveness (IE):

1. Access to and analysis of current data regarding outreach.
 - a. Incoming student information – from which HS, what milestones students reach (application, enrollment, etc.)
2. Assistance creating and implementing surveys.

MEASURING IMPACT/EFFECTIVENESS

Data will be used to understand the quality and effectiveness of O&R this plan. The following provides an overview of assessment measures to be used, and deliverables.

1. **Create infrastructure for ‘aligning the front door’ for Outreach & Recruitment.**
 - a. Opening of the Welcome Center & School Relations Office
 - b. Creation of Standard Operating Procedures identified above
 - c. Full implementation of PeopleSoft Recruitment Module, including creation of the online interest form, and designated recruiters that are trained on using the system.
2. **Conversion Rate (actual recruitment)**
 - a. **Meeting Equity Plan Goals for ‘enrolling in same college’.**
 - b. Use Interest Form to gather prospective student contact information. Provides information on number of contacts, which efforts yield higher contact, etc.
 - c. Analytics through use of PeopleSoft CS Recruitment module to track conversion/yield rate for each step:
 - d. Use metrics to create benchmark goals for each stage, time-based throughout year.



OUTREACH & RECRUITMENT STRATEGIES

The following strategies will be conducted in an intentional and coordinated manner across the campus:



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Marketing and Advertising Update

UPDATED: MARCH 2, 2022



LOS RIOS
COMMUNITY
COLLEGE DISTRICT

GUIDING PRINCIPLES



Snapshot of Marketing Strategies



- Direct Mail
- Partnerships with Community Based Organizations
- Billboards*
- Digital Radio*
- Terrestrial Radio*
- Facebook*
- Twitter*
- Instagram*
- Email "Drip" Campaigns
- High School "Acceptance" Letters
- Paid Search*
- Digital Geofencing*
- Targeted Messaging to Engaged Users*
- "Lookalike" Audiences*
- Motion graphics/video*
- Digital-to-Call Center direct campaign

*indicates bilingual content

Tuition free.
For every future.

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West Sacramento, CA

Find programs, certificates,
and degrees that will set you
up for the future you want
with Los Rios Colleges.

**For every
future.**





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1919 SPANOS COURT
SACRAMENTO, CA 95825

Free tuition and an additional \$2,400 per year
in "no strings attached" financial support is
now available for students who qualify!

The more classes you enroll in, the more financial
aid you are eligible for. Enroll full-time (including
some specific, important classes) to get the full
amount possible.


Earn your degree online or in person now.




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**Don't wait for the
future you want.**

Swipe up and
start now.



Para mi futuro.
Para tu futuro.
Para cada futuro.

COMIENZA HOY






ADVERTISEMENT

Obtén tu título, sin
ningún costo.

Los Rios Colleges.
Para cada futuro.

Aprende más:
future.losrios.com



PARTNERSHIP WITH COLLEGE APP

- New database tool that allows us pinpoint specific communities of perspective students who have expressed interest in Community Colleges and Higher Education
- Utilizes a political data science approach, by overlaying statewide higher education survey responses with publicly available person- and household-level data
- Opportunity to target older learners
- We expect to utilize with:
 - Targeted, message-specific direct mail campaigns
 - Increased multilingual marketing
 - Calling campaigns to prospective students
 - Integrating data with new CRM tool (implantation about to get underway) to connect marketing and outreach efforts

College  **APP**
The Adult Prospect Pipeline



MEANINGFUL INCLUSIVITY AND REPRESENTATION

- Embedded within all strategies and messaging
- Research and Focus Groups
- Using Native Languages
- Imagery Reflective of Students and Communities we Serve
- REAL Students

CBO PARTNERS

Latino/a CBO and Community Leaders



CBO PARTNERS

African American CBO and Community Leaders



MENTOR
CALIFORNIA



Scholars'
PLAYGROUND



MY BROTHER'S KEEPER



Roberts Family Development Center

Marianna Sousa



ARCHITECTS OF HOPE



COMMUNITY ACTIVATION

- Co-branding and sponsorship opportunities with organizations like:
 - Pivot Sacramento
 - California Afterschool Network
 - La Familia Counseling Center
 - Sierra Health Foundation
 - Sacramento Asian Pacific Islander Chamber of Commerce
 - Raley's
 - Sacramento Kings
 - Sacramento Regional Transit
- Partnerships include in-language marketing materials at partner locations, and event branding/co-branding and sponsorship opportunities

COMMUNITY ACTIVATION PARTNERS

Raley's



La Familia
COUNSELING CENTER



s a c r a m e n t o
ASIAN PACIFIC
chamber of commerce

Pivot
SACRAMENTO

CAN
California AfterSchool Network

comcast

CAMPAIGN ALIGNMENT



Los Rios Colleges Online:

Focus on accessibility and flexibility messages to create equitable opportunities for students who can't or prefer not to attend in-person classes



Career Education:

Engage lapsed students to persuade them to refocus on direct-to-career pathways that improve their economic mobility post-graduation/completion



District Campaign:

Create belonging through a community-driven outreach campaign that puts influencers and opinion leaders at the forefront of communications



Employer Recruitment:

Focus on the District's diverse student body as a key differentiator and opportunity for regional brands and employers to reinforce their workforce pipeline

FOCUSED ALIGNMENT

Free tuition and an additional \$2,400 per year in "no strings attached" financial support is now available for students who qualify!

The more classes you enroll in, the more financial aid you are eligible for. Enroll full-time (including some specific, important classes) to get the full amount possible.

Earn your degree online or in person now.




LOS RIOS COMMUNITY COLLEGE DISTRICT

VISIT FUTURE.LOSRIOS.EDU

Tuition free.

For every future.


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LOS RIOS FOUNDATION
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SACRAMENTO, CA

You're ready for more.

- 120 programs
- Training from expert professionals.



LOS RIOS CAREER EDUCATION

¿Insegura sobre tu próximo paso?

Empieza con tu educación.

Los Rios Colleges.
Para cada futuro.



LOS RIOS COMMUNITY COLLEGE DISTRICT

AMERICAN RIVER COLLEGE

COSUMNES RIVER COLLEGE

FOLSOM LAKE COLLEGE

SACRAMENTO CITY COLLEGE

In-person and online classes available this Fall.

Don't wait. Enroll today!



ARC
AMERICAN RIVER COLLEGE

Back in person this fall for English classes.

Don't wait. Enroll today!



FOLSOM LAKE COLLEGE

Back in person this fall for science classes

Don't wait. Enroll today!



SACRAMENTO CITY COLLEGE

Find programs, certificates, and degrees that will set you up for the future you want with Los Rios Colleges.

For every future.



LOS RIOS COMMUNITY COLLEGE DISTRICT

ARC AMERICAN RIVER COLLEGE

COSUMNES RIVER COLLEGE

FOLSOM LAKE COLLEGE

SACRAMENTO CITY COLLEGE

NIMBLE AND CREATIVE



**Adjustments to strategies
in real time**



Creative partnerships

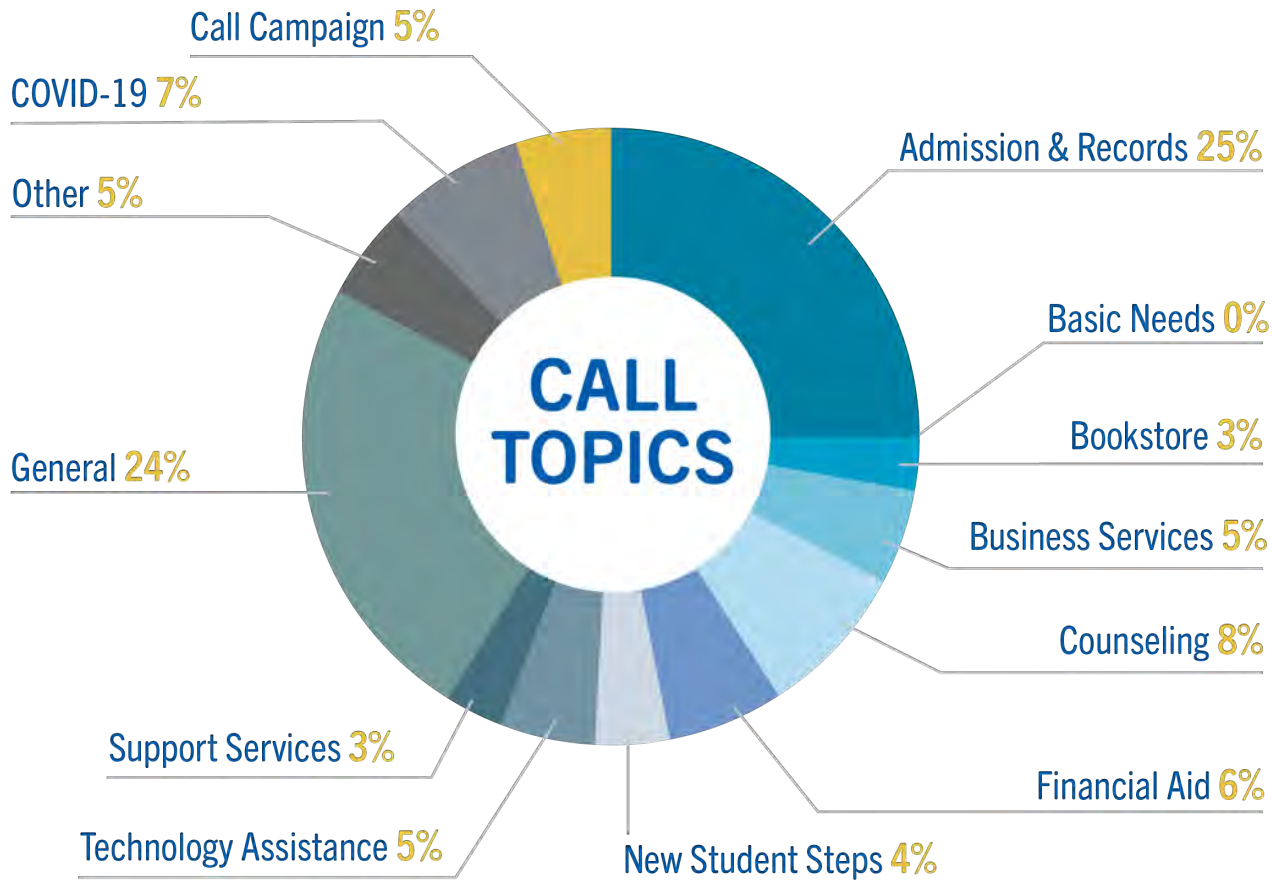


LOS RIOS CALL CENTER

Multilingual support for Los Rios students and prospective students

LOS RIOS CALL CENTER

Top-level Call Topics



Top-level call topics

➔ Topic Details

Admission & Records:
Advance Ed, Password, Petitions
Transcript, Residency

General:
Program or departments,
Graduation Ceremony, 1098-T

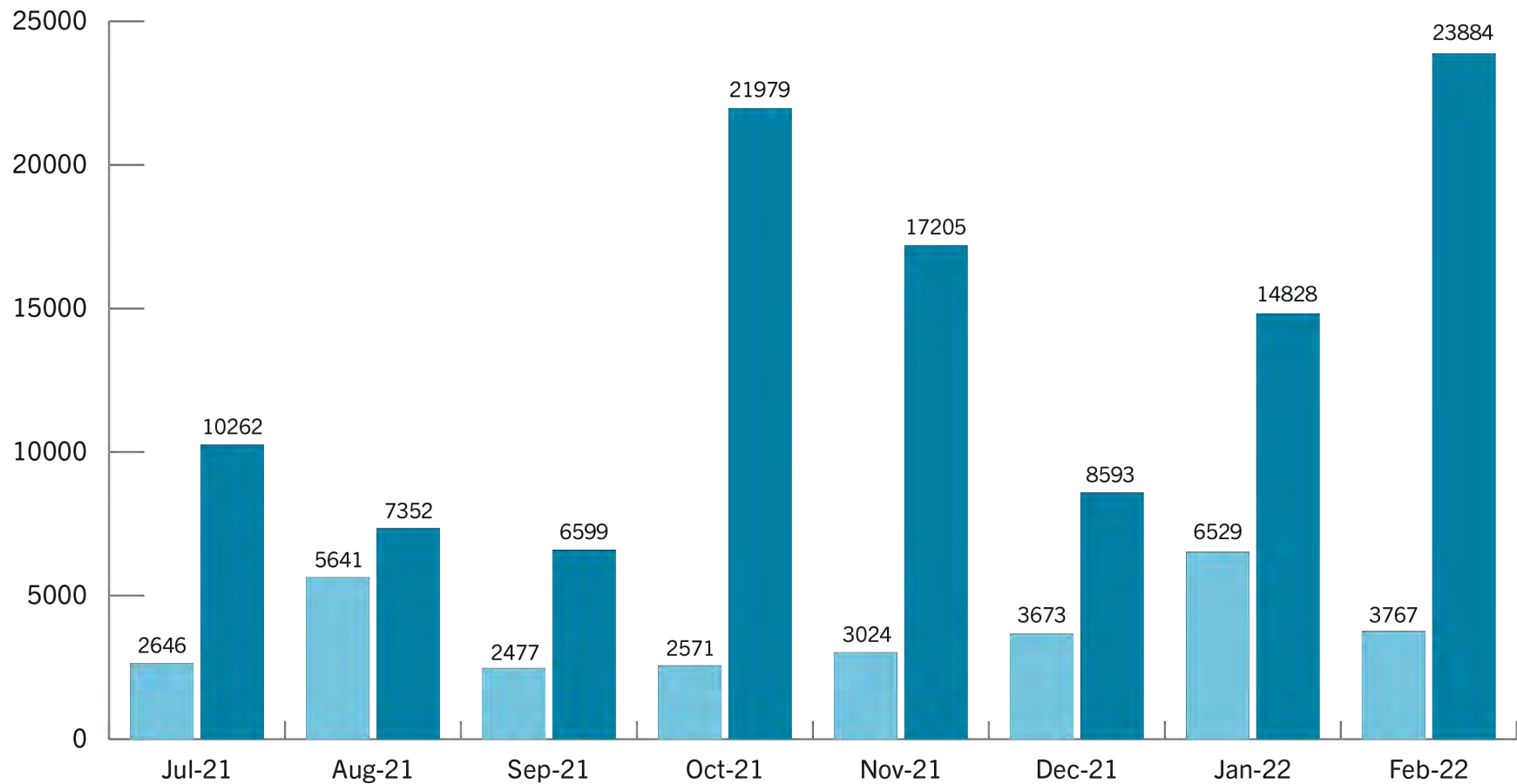
Other:
Tax Preparation,
Employment Verification

New Student Steps:
Application Help

INBOUND/OUTBOUND CALL VOLUME

Inbound/Outbound Call Volume

Inbound Calls Outbound Calls



ANALYTICS

(July 2021–February 2022)

110,702 Total Outbound calls completed

Vaccine Requirements	Scholarship	Priority Registration Date w/o Enrollment	Vaccine Online Students	2021 Fall Fees Due	Debt Relief
27,414	22,199	16,731	12,187	10,284	7,699
2022 Spring Fees Due	Career Education	8 Week Enrollment	ARC Fall Kick Off	CCCApply Application	Los Rios Colleges Online
5,360	3,487	2,036	2,027	979	299

CHATBOT AND LIVE CHAT

- Chatbot LIVE on all four college websites (will be on the the district website by summer)
- Content updated daily to reflect new and updated information
- 201,628 student interactions since October
- 93% of those interactions gave an answer from our extensive knowledge base or a suggested response or link
- Texting campaigns linked to Chatbot
- Piloting Live Chat (managed by Call Center agents) at FLC and CRC, scaling to SCC and ARC this summer

ocelot®

STUDENT VOICE



MARIA SANCHEZ KING
Student Call Center Agent

“

I enjoy working with the Los Rios Call Center. You can almost hear the smile in the student's voices when they realize I am a student as well. It makes my day every time. This is more than a job, I have a purpose. I am part of a team invested in helping students succeed.

”





NEW OPPORTUNITIES AND NEXT STEPS

- Applying for new Lumina Foundation grant that supports innovative marketing practices with a focus on undocumented communities
- Marketing firm contract expires next year, so beginning to plan for RFP process



As always, free to contact
Gabe Ross with additional questions



LOS RIOS
COMMUNITY
COLLEGE DISTRICT



LOS RIOS COMMUNITY COLLEGE DISTRICT
ONLINE TRAINING AND RESOURCES FOR FACULTY AND STUDENTS



MARCH 1, 2022

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Los Rios Community College District

FastTrack OEI Rubric Academy

In an effort to coordinate and support district-wide efforts to ensure quality online courses by aligning them to the [CVC-OEI Course Design Rubric](#), the LRCCD Local Peer Online Course Review (POCR) Process was developed by online faculty. It's called the **FastTrack OEI Rubric Academy (FastTrack)**. Starting in the Fall 2019 semester, you (full- time and adjunct faculty) will be provided with personalized support to assist you in aligning your online courses to the Rubric.

We have 161 aligned courses, which represent 20% of all aligned courses in the state. Currently, there are 328 courses registered for **FastTrack**.

Faculty say:

"I think the common thread of those features - modules, to-do feature, grading rubrics, orientation module, samples of student work - is that they help students understand what to do, how to do it, and when to do it. These practices have dramatically increased clarity for my students, which can be challenging to achieve in an online course.

Students say:

"I really enjoyed this online class, especially being a single mother. It allowed me to spend time with my daughter while also getting an education. The professor made this class a lot of fun while also actually learning about American History. This class was also very well organized and you can tell [the professor] was extremely passionate about history and teaching. He did a fantastic job with this course!"

CVC-OEI praise:

"Through partnership with Los Rios and each college (ARC, CRC, FLC, and SCC) your FastTrack program has become the model state-wide for ensuring quality and offering online course designer assistance directly to faculty. To date, the FastTrack model has influenced nearly 20 colleges in the development of their local programs."

- Jory Hadsell, EdD - Executive Sponsor CVC-OEI

FastTrack Supporting Materials

- [FastTrack Website](#)
- [FastTrack Promotional](#) video
- [Section B Overview](#) instructional video from FastTrack course
- [Additional testimonials](#)
- Upon alignment of their courses, faculty are awarded a FastTrack POCR Certified course badge (shown below)



Student Support

Faculty who complete FastTrack have sufficient training in course design and accessibility to create inclusive, accessible, and equitable learning environments in their online courses. Student support is built into the content and design of the Online Course Templates.

FastTrack Faculty Participant Testimonials

The following videos and testimonials are further evidence of the impact **FastTrack** has had on the quality of online education at Los Rios.

- "...I would say that by far the most common positive feedback I have received has to do with students really appreciating consistency, whether that be with how Modules are set up, assignment instructions, communications, etc. The consistency, it seems, is even more important than the content of actual assignments - if students know how to find things and how to complete things, it really lessens their stress."
- "After going through the quality review process, discussions increased in quantity to weekly, prompts were refined, expectations were clarified, and helpful links for the how-to on technology aspects were added. Students responded much better than I would ever have imagined. I thought, given a skill-building class, discussions were not terribly relevant, but they have become a rich place for student conversation and engagement."
- Aligning this course was definitely intensive - and you did so much work on it! Plus talked me down out of my tree on more than one occasion! I have learned so much during this process, and this course has come so far from where we started. Students actually like it now. I can't thank you enough for all your patience, encouragement and generosity. I am not sure I would have made it under other circumstances. My students have a better learning experience because of you!
- I continue to receive positive feedback from students who say that my courses are much easier to follow than some of their other, less organized classes. I assure them it's all because of working with an OCDC Mentor (and the OEI rubric!).
- "The OEI Rubric and feedback from my mentor helped me take my course to a higher level. Students are now better able to navigate my course and diverse learners are served as it meets accessibility standards

Feedback from Students

- "Please advise the Los Rios Community College District to adopt this class as the golden example of how this course should be taught. I cannot sing enough praises."
- "I loved the structure of this class. I knew exactly what to expect each week and the assignment guidelines were easy to follow and understand. I appreciated the many sources of information for learning the material....Overall, I learned a lot this semester despite no in-person instruction. I've never been a huge fan of history, but this course changed my perspective quite a bit."
- "Overall, I felt that the structure of this class is one of the best since it was more flexible to student schedules rather than being on a rigid schedule and it maintained the integrity of understanding the course's objectives."
- "The modules were structured clearly with every due date made known well ahead of when it was to be turned in. Thank you so much for continuing to do your job to help support students like me further our education."

- "I just wanted to say personally, this is one of the best classes I've ever taken and, no offense, but I don't even like history...Canvas is used so directly, effectively, and efficiently in this class that the technical aspect of it never gets in the way of the learning experience and I think that is a huge reason that leads to success in this class. And I felt that my success in this class was genuinely cared about and supported."
- "I feel supported by the professor. I feel supported as a student with the material and sources provided. Along with multiple methods of contact to have my questions answered via email, office hours, I can ask questions in the lecture and in the student lounge."
- "I feel like the voice feedback and the written feedbacks are very helpful for me because not only do I get feedback from someone, I get to at least know that someone's grading and checking my work and not an automatic bot."
- "I like seeing representations of my culture in the lectures."
- "I like being exposed to different cultures in this class."

Letter of Recognition



California
Community
Colleges

California Virtual Campus –
Online Education Initiative

To: Los Rios Community College District

From: Jory Hadsell, EdD – Executive Sponsor, CVC-OEI

Re: Los Rios FastTrack program

Date: February 25, 2022

Dear Los Rios Colleagues,

Thank you for the Los Rios district's support of the California Virtual Campus – Online Education Initiative, and more specifically your ongoing support for the rigorous quality standards and professional development for online courses embodied by your Los Rios FastTrack program. It is through dedicated resources at the college and district level that together, as a consortium of colleges, we are moving the needle on course quality and improving student success.

When the Online Education Initiative began in 2014, the leadership and statewide faculty partners knew that ensuring students consistently experience well-designed courses that reflect the best of each college's expert faculty and rich support services would be critical to the long-term vision of accelerating student completion, improving equity outcomes, and broadening access to learning across California. Through partnership with Los Rios and each college (American River, Cosumnes River, Folsom Lake, and Sacramento City) your FastTrack program has become the model state-wide for ensuring quality and offering online course designer assistance directly to faculty. To date, the FastTrack model has influenced nearly 20 colleges in the development of their local programs.

Additionally, I would like to commend your team at Los Rios for having this critical resource in place for faculty, along with your college Distance Education and Instructional Development Coordinators, prior to the onset of the pandemic.

Throughout the pivot to remote instruction and now with the continuing return to critical mass on campuses across the state, I can say unequivocally that those colleges that had made prior investment in their online education faculty support, such as Los Rios FastTrack, have seen increased resiliency and accelerated diffusion of innovation.

Thank you for your partnership and ongoing support of the California Virtual Campus. If the CVC team or I can be of any additional assistance, please do not hesitate to reach out.

Regards,



Jory Hadsell, EdD
Interim Vice Chancellor, Technology
Executive Sponsor, California Virtual Campus – Online Education Initiative

Los Rios Colleges Online FastTrack OEI Rubric Academy [▲]

FASTTRACK

OEI RUBRIC ACADEMY | LOS RIOS COLLEGES ONLINE

Welcome to the Los Rios Colleges Online

***FastTrack* OEI Rubric Academy!**

Start Here


Course Guide

Modules

For more details: [Meet Your Online Course Design Mentors](#)

Email: FastTrackAcademy@losrios.edu

Expect emails to your school email address and Canvas inbox. We respond to emails and voice messages within 24 hours on weekdays - holidays and weekends might take a little longer.

If you want to [send an email to a facilitator or to your Academy colleagues](#) [↗], select the Canvas Inbox  from the Global Navigation menu on the left side of your window.

▼ Module 0: OEI Rubric FastTrack Course Guide
📄 M0 Course Guide Introduction
📄 M0 Course Overview
📄 M0 FastTrack Step-by-Step Process
📄 M0 Compensation for Aligning Your Course
📄 M0 Learning Outcomes
📄 M0 Communication Policy
📄 M0 Accessibility
📄 M0 Time Commitment and Tips
📄 M0 Meet Your Online Course Design Mentors


▼ Module 1 Section A: Content Presentation
📄 Introduction and Section A Objectives
📄 A1-A3: Unit-Level Objectives
📄 A4-A8: Use of CMS
📄 A9-A11: Learner Support
📄 A12-A14: Institutional Support
📄 M1 Submit Section A Self-Assessment - First Course 0 pts
📄 M1 Submit Section A Self-Assessment - Second Course 0 pts
📄 Wrap-Up and Support Resources for Section A: Content Presentation

▼ Module 2 Section B: Interaction


 Introduction and Section B Objectives

 B1-B3: Instructor Contact

 B4-B6: Student-to-Student Contact

 M2 Submit Section B Self-Assessment - First Course
0 pts

 M2 Submit Section B Self-Assessment - Second Course
0 pts


 Wrap-Up and Support Resources for Section B: Interaction


▼ Module 3 Section C: Assessment


 Introduction and Section C Objectives

 C1-C4: Effective Assessment


 C5-C8: Guidance and Feedback

 M3 Submit Section C Self-Assessment - First Course
0 pts


 M3 Submit Section C Self-Assessment - Second Course
0 pts


 Wrap-Up and Support Resources for Section C: Assessment


▼ Module 4 Section D: Accessibility

 Introduction and Section D Objectives


 Before You Begin - Making Your Course Content Accessible


 D1-D5: Formatting

 D6-D10: Formatting

 D11: Accessibility Checkers

 D12-D16: Audio and Video

 M4 Submit Section D Self-Assessment - First Course
0 pts

 M4 Submit Section D Self-Assessment - Second Course
0 pts

 Wrap-Up and Support Resources for Section D: Accessibility

▼ Module 5 Section E: Equity
📄 Introduction and Section E Objectives
📄 E1-E4: Equity
📄 E5-E8: Equity
📄 M5 Submit Section E Self-Review - First Course 0 pts
📄 M5 Submit Section E Self-Review - Second Course 0 pts
📄 Wrap-Up and Support Resources for Section E: Equity

Los Rios Foundations of Canvas Course Design

The **Foundations of Canvas Course Design (Foundations)** training is a resource to assist faculty in becoming dynamic instructors in the online course modality. Developed by Los Rios Online Course Design Coordinators (OCDs) with consultation by the Learning Management System (LMS) coordinators, the asynchronous training can be completed in approximately 15 hours over the course of two weeks, and is facilitated by a faculty member with extensive experience teaching online.

Foundations Supporting Materials

- [DE Training Requirement Website](#)
- 496 faculty members have completed the training since January 2021.
- Upon completion, faculty members are awarded a course completion badge (pictured below)
- Number of faculty that have completed **Foundations** as of February 2022:
 - ARC: 213
 - CRC: 105
 - FLC: 56
 - SCC: 114
 - Multiple districts – 14



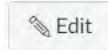


Welcome to Los Rios Foundations of Canvas Course Design

Modules will be available at 9:00 am on Monday

Week	Module
Week 1	<u>Module 0 - Course Guide and Orientation</u>
Week 1	<u>Module One - Using Canvas</u>
Week 1	<u>Module Two - Employing Regular Effective and Substantive Contact</u>
Week 2	<u>Module Three - Applying Universal Design for Learning and Accessibility</u>
Week 2	<u>Module Four - Developing Assessments</u>
Week 2	<u>Module Five - Next Steps</u>
Week 2	<u>Module Six - Take it to the Next Level (Optional)</u>

Course Syllabus ^A



About This Course

The Foundations in Canvas Course Design (Foundations) training is a resource to assist faculty in becoming dynamic instructors in the online course modality. Developed by Los Rios Online Course Design Coordinators with consultation by the Learning Management System (LMS) coordinators, the asynchronous training can be completed in approximately 15 hours and is facilitated by a faculty member with extensive experience teaching online. This training meets the district's new minimum standard for distance education preparation referenced in section 4.4.4 of the LRFCT 2020-2023 Contract.



Training Compensation

Faculty who complete the Foundations training are eligible for compensation. Now, both adjunct and full-time faculty can choose to be compensated for completion of the training through a non-load attributable stipend, for fifteen (15) hours of training at the Class II, Step 1 placement on Schedule B2; one (1) unit of class advancement; or to meet Flex obligation. Completion can be applied towards tenured and tenure-track faculty College Service obligations as well.

Course Learning Outcomes

1. Demonstrate ability to use Canvas Tools
2. Employ regular effective and substantive contact
3. Create Accessible Canvas Content
4. Develop a Canvas Assessment using Backward Design
5. Identify Culturally Responsive Teaching practices

M02 Communication & Culturally Responsive Classes [▲]

Module 02. Employing Regular Effective and Substantive Contact

Before we get started, please think about the following:

- How do you know who your online students are?
- How do students know that the instructor is not just a computer teaching them?
- How do you know which students have problems that you could help with?
- How do you convey your concern for students who are at risk of failing, without making them give up and drop your class?
- How do you connect students with other students and help them get to know one another?

As [Rhodes & Schmidt](#) highlight in their article *Culturally Responsive Teaching in the Online Classroom*, establishing inclusion is ruttin in communication between instructor and student. "Students typically access online courses at different times throughout a lesson or unit of instruction. Instructors must allow time for students to participate, and to learn about their classmates and the instructor. Therefore it is important to establish inclusion in the online classroom after the course starts. During this time of establishing inclusion, instructors must be engaged in the course. They must show learners they are present. Instructors should be active participants in communicating with students, discussing their backgrounds, highlighting similarities and differences, and using inquiry to learn more about their students. They may also refer to course guidelines, policies and procedures discussed above, so students better understand the classroom environment."

Take a moment and watch the following video from Nino Conley:



M0 What is Different About Teaching Online? [▲]

Module 0. Course Guide and Orientation

Teaching online is different than teaching in a traditional classroom and you, as the online instructor, will need to make changes in how you construct your students' learning process. **Flexibility** is one important key to the success of an online course. Be flexible how you do things. Ask students for regular feedback and assess in other ways to find out what is working and what is not working. If something is not working, or could work better, change it!

10 Myths About Teaching Online

Watch this video from Open SUNY *Interested in Online Teaching* program to dispel ten common myths about online teaching. As you watch the video, reflect on your impressions of online teaching prior to this semester. Did this video identify any misconceptions you had (or have heard from colleagues) about online teaching? Do you have new questions about online teaching that you didn't have before?



M03 Remediating for Accessibility

Module 03. Applying Universal Design for Learning and Accessibility

Screen Readers

Visually impaired students use an assistive technology called a screen reader. Screen readers use specially designed software to read web-based text to the user. Without formatting, the screen reader would not be able to tell the user what a page looks like! The screen reader would literally start at the first word on the page, and continue to the last word. Chunking, headings, lists, and hyperlinks that are so helpful when they are described to sighted users would be completely missing from this experience!

Screen reader software is sophisticated. It allows the user to "scan" the Canvas page by telling the screen reader to look for headings, images, lists, or hyperlinks. To do this, however, the screen reader uses "tags"--HTML coding--to find the features. Yes, Canvas pages are really web pages! Text that has not been "tagged" correctly is like the giant block of text--unfriendly, uninviting, and not useful.

What Needs to be "Tagged"?

You may be wondering what actually needs to be done to make a Canvas page or document accessible. The basic list, and this is true for Word documents, Google documents, and PDFs, is this:

- Headings
- Alt Text
- Color contrast
- Text formatting
- Lists
- Links

If all of these items are "tagged" correctly, then your pages will be entirely accessible. Coming up: you will read more about each one of these in detail.

Select Next to continue with Module 03. Applying Universal Design for Learning and Accessibility

Los Rios Accessible Course Creation Academy

The **Los Rios Accessible Course Creation Academy (ACCA)** course helps faculty and staff explore techniques for making Canvas courses not only technically accessible, but also more usable for all students and colleagues. It is self-paced and all Los Rios staff members can [enroll](#).

Los Rios Colleges Accessible Course Creation Academy [▲]



Welcome to the Los Rios Colleges Accessible Course Creation Academy Online Self-Paced Course!



Guide Introduction [▲]

The Los Rios Colleges Accessible Course Creation Academy (LRC ACCA) Course Guide

Hello and welcome to the Self-Paced version of the Accessible Course Creation Academy. In this course you will be introduced to the methods you can use to make your online digital course materials not only technically accessible, but more usable for all your students and colleagues. The key here is that all the methods you'll learn about are things that you can do yourself, and you'll have the opportunity to try them all out as part of the "Now You Try It" assignments. Throughout the class, you'll learn about accessibility standards that are a requirement for all courses. They include how to design effective and accessible web pages, how to create, retrofit, and curate accessible documents, and how to make multimedia accessible.

Course Description

The **LRC Accessible Course Creation Academy** provides a thorough explanation of accessibility within online courses, focusing on the skills you will need to make your course technically accessible and thus usable to a broad range of students. The course covers how to use online tools, including the tools in Canvas, to create accessible resources, to retrofit existing resources, and to curate new resources. The focal point of the course is learning how to use accessibility editors (both in Canvas and in common software, such as Microsoft Word) to achieve accessible course content.

Here is a complete printable [LRC ACCA Course Guide](#) ↓ in Word.

Click on the Next button to continue through this section of the Guide.

Canvas QuickStart

This training was a brief canvas training created in response to the establishment of minimum canvas usage requirements following our move to remote instruction. This has now been replaced with Foundations of Canvas Course Design.

Course Design & Accessibility Workshops

Along with the online teaching and technology workshops provided by the college Distance Education and Instructional Development coordinators, the Online Course Design Coordinators (OCDs) also offer workshops on the CVC-OEI Rubric, course design, and accessibility.

College Templates

Each Los Rios college offers customizable course templates that faculty can import from Canvas Commons (a repository of shared Canvas resources). These templates include instructor resources, an orientation module, a sample learning module, sample assessments, and sample student surveys. Faculty enrolled in the **Foundations** training learn how to import and customize the templates, and **FastTrack** participants also have this option available to them.

The following image provides an example of CRC's Online Course Template from Canvas Commons, highlighting items in the instructor resources module. This template was downloaded 187 times during the Fall 2021 semester. ARC's Template has been downloaded over 800 times since it was posted approximately three years ago. Both FLC and SCC's template have been downloaded over a 100 in the Fall 2021 Semester.

Course Template Example

The screenshot shows a Canvas Commons interface for a course template. At the top, it says 'Commons' and 'Shared'. There are buttons for 'Edit Resource' and 'Remove from Commons'. Below that, it shows '7 Favorites', '187 Downloads', '5/20/21', and 'Public Domain'. The main title is 'CRC - Online Course Template F21' with a 'COURSE' label. There are tabs for 'Preview', 'Details', and 'Version notes'. On the left, a sidebar lists 'Modules (4)', 'Assignments (2)', 'Pages (37)', 'Discussions (7)', 'Quizzes (8)', and 'Files (64)'. The main content area is titled 'Instructor Resources (Hidden Module - do not publish)' and lists five resources: 'How to use the CRC Course Template', 'Course Design and Quality Online Teaching Resources', 'Stop! Is your Course Accessible?', 'Embedding Library Guides into Canvas', and 'An Equity-Minded Approach'. On the right, there are logos for 'LOS RIOS COMMUNITY COLLEGE DISTRICT' and 'COSUMES BAY COLLEGE'. Below the logos is an 'Import/Download' button, followed by the text '33.58 MB - IMS Common Cartridge File (.imscc)'. There are also buttons for 'Add to Favorites' and 'Copy Resource Link'.

Digital Badging

As mentioned in previous sections, the OCDCs are currently piloting digital badging. Currently, badges are being awarded to faculty upon completion of online teaching trainings and professional development workshops. Students participating in the College & Life Skills 101 course are also enrolled in a digital badging pathway that culminates in a course completion badge.

Digital badging holds great promise for competency based learning and the acknowledgement of student learning that takes place outside of traditional academic pathways. Because digital badges can be used to communicate demonstrable job skills to potential employers, it is the hope of the OCDCs to expand the Badgr pilot to explore microcredentialing for students who come to Los Rios to upgrade their skills-set rather than pursue a degree or certificate.

Shown below is a screenshot of the Los Rios Badgr issuer, including the number of badges that have been issued this year.

Issuers

[Create issuer](#) [...](#)

Cosumnes River College

Verified

Cosumnes River College is part of the Los Rios Community College District located in Sacramento, CA.

[View Issuer](#)

26	308	2	15
BADGES	AWARDS	PATHWAYS	GROUP MEMBERS



Los Rios Community College District

Verified

The Los Rios Community College District is located in Sacramento, California. Our vision is to transform the lives of students and enhance the vitality of our region. Our mission is to provide a vibr... [View More](#)

[View Issuer](#)

5	486	0	0
BADGES	AWARDS	PATHWAYS	GROUP MEMBERS

Faculty Training & Resources

ARC Online Teaching Institute (OTI)

[Online Teaching Institute](#) – Nine sessions, facilitated, asynchronous, online training, offered every term

The ARC Online Teaching Institute (OTI) helps to prepare instructors for teaching online through exploration and hands-on exercises and demonstration of effective practices in online instruction. It is offered three times a year — fall, spring, and summer, in a fully online format with a minimum of 10 participants.

The OTI is composed of nine sessions. It begins with participants exploring the characteristics of successful online instructors, the foundations for teaching with technology, options for teaching online, the concept of digital competencies and how that may affect how our students learn, and ways to identify and create exemplary online courses for all students. Through the program, participants delve into the important issues for both instructors and students using online tools including website credibility, plagiarism, copyright, web accessibility, and assessments. Participants are introduced to different presentation applications, media, and tools for online communication as they create a blueprint for modules that demonstrate exemplary online course design.

Spring 2022 Schedule

The American River College Spring 2022 OTI is scheduled for Friday, February 4, 2022 through Friday, April 29, 2022.

Session	Start Date	Topics
Session 1	Feb 4, 2022	OTI & Course Management System Orientation – Course Design
Session 2	Feb 11, 2022	Introduction to Online Teaching and Learning – Teaching Strategies and Practices
Session 3	Feb 18, 2022	Universal Design for Learning (UDL) and Accessibility
Session 4	Mar 4, 2022	Syllabus, Policies, and Learner Support
Session 5	Mar 11, 2022	Course Design: Integrating Web Resources
Session 6	Mar 18, 2022	Assessment and Evaluation of Student Learning
Session 7	Apr 1, 2022	Interaction and Community Building
Session 8	Apr 8, 2022	Media for Online Learning
Session 9	Apr 29, 2022	Capstone Project – due date: May 6, 2022

Training

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NameCoach

OEI Course Design
Rubric

@ONE Principles for
Quality Online
Teaching

Google Drive

Student Connect

TechConnect Zoom

Recent Announcements



Great Job on Module 03 - Take a Break!

You had a few different things thrown at you this we...

Posted on:

Feb 25, 2022 at 5am

ARC OTI Spring 2022 Dieli ^{A†}



Welcome to the ARC Spring 2022 Online Teaching Institute (OTI)!

[Start Here](#)

[Announcements](#)

[Syllabus](#)

[Modules](#)

Meet Your Facilitator:



[ARC Accessible Course Creation Academy \(ACCA\)](#)

The ARC Accessible Course Creation Academy (ACCA) guides participants with creating accessible course content in their own courses. This **completely online course** provides a thorough explanation of accessibility within online, hybrid or web-enhanced courses. It focuses on the skills instructors need to make their courses compliant with Federal laws (ADA and Section 508 standards), technologically accessible, and culturally responsive for a broad range of students. The course covers how to use online tools, including Canvas, to create accessible resources, retrofit existing resources, and curate new resources through exploration and hands-on demonstrations of effective practices in accessibility. The focal point of the course is learning how to use editors (both in Canvas and in common software, such as Microsoft Word) to enhance accessibility.

[Accessible Course Creation Academy](#) – four sessions, facilitated, asynchronous, online training (offered in the Spring)

Spring 2022 Schedule

The American River College Spring 2022 ACCA online course is scheduled for six online sessions between February 18, 2022 and April 1, 2022.

Session	Start Date	Topics
Module 1	Feb 18, 2022	Getting Started/Orientation
Module 2	Feb 25, 2022	What is Accessibility
Module 3	Mar 4, 2022	Accessible Canvas Content
<i>Break Week –</i>		
Module 4	Mar 18, 2022	Accessible Document Design
Module 5	Mar 25, 2022	Accessible Online Media
Module 6	Apr 1, 2022	Accessible Video and Captions
<i>Finish work and assessments by: April 8, 2022</i>		

- Home
- Announcements
- Modules
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- Grades
- People
- ARC Student Support Services
- Google Drive
- TechConnect Zoom
- Student Connect

ARC Accessible Course Creation Academy Spring 2022



Welcome to ARC's Online Spring 2022 Accessible Course Creation Academy!

- [→ Start Here](#)
- [📣 Announcements](#)
- [★ Syllabus](#)
- [📁 Modules](#)
- [🗨️ Discussions](#)

ARC Equity and Culturally Responsive Online Teaching Institute
[Equity and Culturally Responsive Online Teaching Institute](#) – four sessions, asynchronous, facilitated, online training (New in Spring 2022)

Some students in our system face big hurdles in their journey to a certificate, AA degree, or transfer. Helping students surmount these hurdles requires a personal commitment to the work, institutional changes and support, and daily implementation of culturally responsive teaching practices. During this Institute, we will:

- take a detailed look at the opportunity gap in online courses,
- explore statewide and institutional approaches to reducing the opportunity gap,
- explore our own role in enacting solutions,
- create an equity-minded syllabus, and
- develop an action plan for our online courses that integrates equity and culturally responsive teaching strategies.

Spring 2022 Schedule

The **American River College Spring 2022 ARC Equity & Culturally Responsive Online Teaching Institute** is scheduled for four online sessions between March 4, 2022 and March 25, 2022.

Session	Start Date	Topics
Session 1	Mar 4, 2022	Understanding the Opportunity Gap
Session 2	Mar 11, 2022	Addressing the Opportunity Gap
Session 3	Mar 18, 2022	Redesigning Your Syllabus
Session 4	Mar 25, 2022	Applying Equitable Design to Your Online Course (all work finished by April 1, 2022)

☰ [ARC Dev Equity and Culturally Responsive Online Teaching](#)

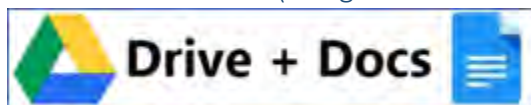
- Dev
- Home
- Announcements
- Modules
- Discussions
- Grades
- Google Drive
- NameCoach
- Badges
- Connect with

ARC Dev Equity and Culturally Responsive Online Teaching [▲]



Welcome to our homepage! This 4-week course begins on March 4, 2022 and ends on April 1, 2022.

ARC Classified series (Google Drive and Accessibility)



Originated Fall 2021 in response to an identified need, this professional development opportunity introduces classified employees to Google Drive and Accessibility. Previously five sessions, this series will repeat in Spring 2022 as three sessions, embedding accessibility into each session.

Previous five sessions:

- Session G1 Using *Google* Drive; and Creating and Sharing *Google* Docs
- Session G2 Creating and Sharing *Google* Forms
- The final three sessions covered Accessibility – how to ensure your Microsoft and Google files are accessible for colleagues using screen readers and other assistive technology:
 - Session A1 Creating *Accessible* Google Docs and Sheets with Google tools; and Checking & Remediating with Grackle
 - Session A2 Creating & Remediating *Accessible* Word Docs with the Office Accessibility Checker and Navigation Pane
 - Session A3 Creating & Remediating *Accessible* PowerPoints and Excel with the Office Accessibility Checker

Open drop-in sessions 4x a week (and individually scheduled Zoom sessions)

Open to all employees, drop-in sessions are where people can bring specific (or something not-so-specific) questions for support and point-of-need training. Pre-pandemic, these were offered in-person and via Zoom 3x a week for up to two hours each. Following the closures, we increased it to 4x a week and three hours each. We are still holding them 3x a week but are back to two hours each. These sessions are advertised on our website, via our weekly newsletter, in our email signatures, on the college's [employee events calendar](#), and through occasional reminders in ARC Beaver Bites and the ARC Center for Teaching and Learning emails.

March 7, 2022 - March 13, 2022



[Virtual Drop-In Lab 6PM-8PM](#)

Monday, March 7, 2022 at 6:00 pm - 8:00 pm



[Virtual Drop-In Lab 1PM-3PM](#)

Tuesday, March 8, 2022 at 1:00 pm - 3:00 pm



[Virtual Drop-In Lab 10AM-12PM](#)

Wednesday, March 9, 2022 at 10:00 am - 12:00 pm



[Virtual Drop-In Lab 1PM-3PM](#)

Friday, March 11, 2022 at 1:00 pm - 3:00 pm

Email support via ITCTraining@arc.losrios.edu and our individual Outlook accounts ITCTraining@arc.losrios.edu serves as a central Inbox that all three coordinators monitor and respond to (while also being available via direct contact).

[ARC Canvas Free Sample Class](#) (available to all students and employees)


The **ARC Canvas Free Sample Class** is enabled in all ARC course shells upon their creation. A link to the course appears in the Course Navigation menu of every class (unless the owner of the shell opts to disable it) and students receive a certificate of completion when they have finished it. The class is also linked from the *ARC Canvas Help* resource that is in each shell as well as the *Technology Requirements and Help* syllabus page of the *ARC Canvas Template*.

[ARC Canvas Free Sample Class](#)



Dev

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Recent Announcements

 **Welcome!**
Welcome to this free, fun course that will help you lea... Posted on:


ARC Canvas Free Sample Class ^{A*}



Welcome to the ARC Canvas Free Sample Class!


[Start Here](#) [Announcements](#) [Syllabus](#) [Modules](#)

Meet Your Instructor - Professor ARC Canvas










[Weekly newsletter](#)

The ITC Weekly News goes out every Wednesday to ARC Everyone on Exchange. In addition to highlighting our academies, institutes, upcoming trainings, and drop-ins, this newsletter highlights changes users may see in Canvas and includes the “ITC Panda” feature where we share tips/tricks/resolutions to recent questions we may have answered via email or during drop-in.


Training, ITC ☆
 itctraining@arc.losrios.edu
 Send email View profile

Results Filter ▾

All results

- 
 Training, ITC
 ITC Weekly News 2-23-22 | IT... Wed 2/23
 ITC Weekly News for 2-23-2022... Inbox
- 
 Training, ITC
 ITC Weekly News 2-16-22 | IT... Wed 2/16
 ITC Weekly News for 2-16-2022... Inbox
- 
 Training, ITC
 > Redo: ITC Weekly News 2-... Wed 2/16
 Oh good, thanks! Actually, whe... Inbox
- 
 Training, ITC
 ITC Weekly News 2-9-22 | ITC... Wed 2/9
 ITC Weekly News ITC Panda – ... Inbox
- 
 Training, ITC
 ITC Weekly News 2-2-22 | Spr... Wed 2/2
 ITC Weekly News ITC Online Te... Inbox
- 
 Training, ITC
 ITC Weekly News 1-26-22 | IT... 1/26/2022
 ITC Weekly News ITC Panda – ... Inbox
- 
 Training, ITC
 ITC Weekly News 1-16-22 | IT... 1/16/2022
 ITC Weekly News ITC Panda – ... Inbox

ITC Weekly News 2-9-22 | ITC Panda Spring Cleaning
 the Course Nav | Spring Professional Development -
 ACCA and Equity OTI | Drop-In Labs


Training, ITC
 Wed 2/9/2022 1:47 PM

ITC Weekly News

ITC Panda – My Course Navigation Menu Needs a Spring Cleaning!



Dear ITC Panda,
 Now that classes have started, I am looking at my Course Navigation Menu and there are some repeated items showing for students. (I included a picture for you.) How do I clean those up?
 Thanks,
Prof L. in Sacramento

Dear Prof L.











Yes, that happens when we import our courses, however there is a quick solution for that. I added some notes to your image to help explain what happened.



[Quizzes](#) 
[Collaborations](#) 
[Syllabus](#) 
[ARC Canvas Help](#) 
 ARC Canvas

ARC Canvas Template

The ARC Canvas Template was developed during our transition to Canvas in an effort to provide faculty with a foundation to build their course upon while also delivering tips and tricks on utilizing Canvas as well as information on effective peda/andragogical online teaching and learning practices. Updated every semester, it is available through the Canvas Commons and directions to access it are included on the Home page of every class section's Canvas shell:

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- Announcements 
- Modules 
- Discussions 
- Grades
- ARC Tech Help
- ARC Canvas Sample Class
- ARC Resources
- ARC Tutoring
- Google Drive
- Assignments 
- Pages 
- Files 
- Outcomes 
- Quizzes 
- Collaborations 
- Syllabus 
- Rubrics
- NameCoach

Instructors (please delete from here down when done):

- If you are new to Canvas, use the information above and add your own contact information.
- If you would like to import a course you have taught in Canvas before, follow the *Instructions to import an existing Canvas course*.
- If you would like to utilize the ARC Template, which includes a model for excellent online teaching, follow the *Instructions to import the ARC Template for a new Canvas course*.
- When you have what you want on this page, you can delete this list and everything below.

Instructions to import an existing Canvas course

If you have a Canvas course from a previous semester that you would like to roll-over into this Canvas shell,

1. use the [Canvas Import tool to Copy a Canvas Course](#)
2. and then [Replace this Front Page](#) with the homepage that you have copied in

Instructions to import the ARC Template for a new Canvas course

If your course is brand new to Canvas, you can import the ARC Template from Canvas Commons.

Follow these steps to import the Template into your course; **read all instructions before leaving this page.**

1. Copy or note the following text: **ARC Spring 2022 Template**
2. Use [this link, which will open in a new tab, to go to Canvas Commons.](#)
3. Enter the text you copied, **ARC Spring 2022 Template**, in the Search box, and select the corresponding course.
4. To import the template, select the Import/Download button under the ARC logo. From the

The ARC Template itself includes five modules:

- A module with resources developed specifically for faculty
- A syllabus module
- A course orientation module
- A sample “Module 01” modelling the use of text headers to break a unit of learning into an introduction with learning objectives, readings and activities, and a module summary to wrap everything up.
- A module with course surveys that faculty can utilize to gain feedback from students on either the course itself or as a self-assessment of their own progress in the course.



Modules (5)

Assignments (1)

Pages (25)

Discussions (6)

Quizzes (10)

Files (40)

Instructor Resources (Do NOT Publish!)

How to Use the ARC Template	
Stop! Is your Course Accessible?	
Course Design and Quality Online Teaching Resources	
ConferZoom Guide	

Course Syllabus

Introduction to Syllabus	
Student Learning Outcomes	
Disability Services and Programs for Students (DSPS) - Accommodations	
Communication	

Vendor provided trainings: Camtasia/Snagit

Beginning Fall 2021, ARC secured a site license for TechSmith's Camtasia and Snagit tools. The support team at TechSmith is providing both general and specific training on these tools as part of our license, notably offering a couple different sessions during Flex week in Fall '21 and Spring '22. More trainings are forthcoming. The [ITC's Camtasia and Snagit webpage](#) includes information on accessing these tools as well as links to recordings of recent training sessions.

PlayPosit resources

PlayPosit also offers regular support and training of their tool, in partnership with the CCCC's TechConnect. These are a regular feature in the ITC Weekly Newsletter.



Make your videos Interactive with PlayPosit!

Would you like to add even more interaction to your videos? Would you like combine clips from different videos and add questions or comments along the way? You can do that with PlayPosit!

TechConnect is partnered with PlayPosit to provide access to this interactive web-based video platform that allows educators to provide formative assessment both inside and outside the classroom.

To get started, Watch this Recording and Q&A session: [Reimagining your Video Content with PlayPosit](#)

PlayPosit Resources for California Community Colleges

Find the overview, detailed instructions, and FAQs on this [CCCTechConnect PlayPosit page](#).

More PlayPosit Resources

[This is the knowledge base](#) that contains all things PlayPosit.

These are instruction sets to get you started:

- [Accessing PlayPosit in Canvas](#)
- [Building a Bulb](#) – a Bulb is the interactive video that you add to a video by embedding questions, images, audio, and other media elements.
- [Monitoring Bulbs](#) – check analytics and manually grade interactions
- [Student Experience](#) - this is a great resource to share with learners

Check out [more Partner Resources and attend Design Team Office Hours](#) on **Tuesdays @ 8:30 AM PT and Thursdays @ 12:30 PM PT**

Online Teaching Resources webpage (Covid-19 response)

In response to the closures, the ITC developed a webpage of resources and guides for what, at the time, was crisis mode. As the closures continued, this resource was modified to be less about crisis response and more directed to guiding faculty on leveling-up with effective practices and peda/andragogy. A big part of this work was our *Keep on Teaching* training which informed the district's new *Foundations of Canvas Course Design* course. The [Online Teaching Resources page](#) remains a part of the ITC website at this time with our drop-in schedule, a Google Doc where employees have collaborated to share their own tips and tricks with each other, a small selection of Canvas guides geared towards the beginner, information on Zoom, guidance on regular and effective contact, and accessibility resources.

The ITC Website itself

In addition to resources referenced above, [the ITC Website](#) is a one-stop shop for information on our Academies/Institutes, Accessibility resources (including captioning), Canvas FAQs, Copyright matters, general information on Distance Education, Google tools, and Zoom.



FUTURE EVENTS

[Virtual Drop-In Lab 6PM-8PM](#)
Monday, February 28, 2022

[Virtual Drop-In Lab 1PM-3PM](#)
Tuesday, March 1, 2022

[Virtual Drop-In Lab 10AM-12PM](#)
Wednesday, March 2, 2022

[ARC Equity and Culturally Responsive Online Teaching Institute Spring 2022 Registration](#)
Friday, March 4, 2022 - Friday, April 1, 2022

[Virtual Drop-In Lab 1PM-3PM](#)
Friday, March 4, 2022

<p>ONLINE TEACHING RESOURCES</p> 	<p>INSTRUCTIONAL TECH VIRTUAL HELP</p> 	<p>ENGAGE YOUR STUDENTS WITH YOUR VIDEOS</p> 	<p>TECHCONNECT ZOOM - TIPS & TRICKS</p> 
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ARC’s Center for Teaching and Learning (CTL)

We invited the [CTL](#) to contribute to this list. Beyond a now-completed series with our Fall '21 convocation speaker, Sharla Berry, offered last year with an equity focus on online teaching and learning, they note that, “In general, most of the workshops and communities of practice that CTL presents in andragogy/culturally responsive teaching, grading, syllabi, and allyship can be applied to DE but is not labeled or publicized as DE specific.”

Student Resources & Support

ARC provides students with online student resources such as how to access and use Canvas and how to access tech resources, free and loaner computers, and internet and WiFi, as well as access to online student support services such as counseling, tutoring and CalWORKs.

Cosumnes River College

Faculty Training & Resources

CRC offers a better-prepared Online Teacher program including:

1. Online Teaching Institute
 - a. Helps faculty prepare to participate in the FastTrack OEI Rubric Academy
 - b. Supports effective design of online courses
 - c. Includes an online course template via the Canvas Commons
2. Equity and Culturally Responsive Teaching
3. Humanizing Online Teaching and Learning
4. Online Course Template
5. Online Education Support Resources

ONLINE TEACHING INSTITUTE | CRC

Welcome to the Spring 2022 CRC Online Teaching Institute!

Thank you for wanting to spend time flexing your online teaching muscles, or—in some cases—discovering muscles you didn't even know you had!

This OTI is a fully online asynchronous course. By the end of the course, the goal is for you to feel confident in your ability to effectively develop online environments and activities for your students.

Click on the purple banner to start the course orientation.



How you will know what to do

The links on the Course Navigation menu will always be available:

- We will regularly post [Announcements](#) with course updates and reminders.
- The [Syllabus](#) (which you will have access to once you complete the orientation modules) has details on how the course runs.
- [Modules](#) are where all of the course materials and interactions will take place.
- While [Discussions](#) are linked in each module, you can also go directly to the list to see a count of unread messages.
- Your feedback on activities can be found in [Grades](#).

Once you are on a page inside a module, you can use the "Previous" and "Next" buttons for navigating within each module.

M2 @ONE Principles for Quality Online Teaching ^{A+}



The [@ONE Principles for Quality Online Teaching](#) were adopted and modified by the OEI to support effective online teaching. Along with the OEI Course Design Rubric, they are two sides of the same coin.

Each of the five principles includes explanations with details on how you might implement the standard in your own learning environment. A well-designed course that includes opportunities for student-student interaction, for example, will only be effective if the instructor facilitates those interactions and provides opportunities to make those interactions relevant to the course content.

In Assignment 2, you will consider the @ONE Principles and how to apply them to your teaching practice in your model course.

However, before working with the @ONE Principles and in order to get the most of this exercise, consider the results of your Online Teaching Self-Assessment. Did you gain any insights about your strengths or identify skills you would like to develop more fully? Keeping that experience in mind and considering your course content, you should then review the @ONE Principles.

Consider how you might implement these principles and best practices in the online course you are developing. Consider which principles you think might be beneficial for your particular students, at their level and for your content. If there is an area where you think your teaching strategy could benefit from the development of a new activity or approach, you might consider developing that during a future module as part of your Model Course!



It is highly recommended that you start a document or keep a notebook where you can begin recording various thoughts and ideas you have towards development of your online course. You likely will not get to apply them all through the OTI, nor have the time to, but those notes may be inspiration for something amazing later on down the road! Later on in the course, you can decide what concepts you want to adopt immediately and which concepts you will explore more at a later date.

ECRT @ CRC

Home
Essentials
Goals
Resources
Grading
Policies
Our Brave Place

Equity & Culturally Responsive Online Teaching at CRC

Syllabus

This is a fully online course.

Welcome to Equity & Culturally Respons...

Equity & Culturally Responsive Online Teaching With a CRC twist

Watch on YouTube

Welcome!

Greetings From Your Instructors!

We will be your online instructors for Equity & Culturally Responsive Online Teaching. We know you have so many institutional responsibilities -- grading and facilitating your load of courses, attending committee meetings -- and personal responsibilities as well! In light of this, we appreciate your decision to become more equity-minded educators by applying Culturally Responsive Teaching and Learning (CRTL) methods in your online courses.

Sincerely,
Gregory Beyrer, Distance Education Coordinator
Amanda Paskey, Professor of Anthropology

Humanizing Online Teaching & Learning - Fall 2021

A↓

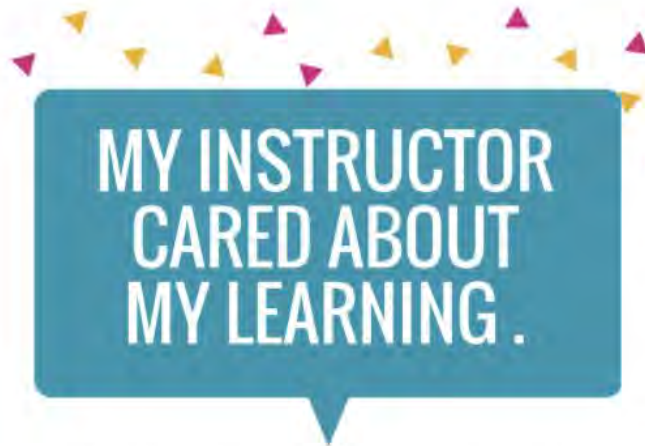


This is an 8-week course for instructors to designed to help us build an online community of learners through conveying our human presence, empathy and awareness. Each of our modules lasts two weeks, and we'll begin with some pre-course activities. Select the **Start Here** link to begin.

Modules will be available at 9am on the start date:


<u>START HERE</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
	9/13-9/24	9/27-10/8	10/11-10/22	10/25-11/5

You Make the Difference



COMMUNITY COLLEGE ONLINE STUDENTS
WHO ARE MORE LIKELY TO SUCCEED

JAGGARS, S. S., & XU, D. (2013). PREDICTING ONLINE
OUTCOMES FROM A MEASURE OF COURSE QUALITY.

 than face-to-face instructors, should be mindful about being present in their classes. When instructors teach face-to-face classes, their human presence is baked into the teaching process and their interactions with students are part of the flow of facilitating a class. When teaching online, this presence must be conscientiously developed.

Outcomes from a Measure of Course Quality.

The Community College Research Center at Teachers College, Columbia University completed a series of studies that examined 23 high-demand, entry-level online courses at two community colleges. The researchers observed the online courses, reviewed course materials, and interviewed course instructors and 46 students enrolled in at least one of the courses.

These studies highlight a link between an engaged, caring instructor and student success. Students in the study stressed the value of interacting with their instructors and the study found that higher levels of interpersonal interaction were correlated with higher grades in online courses. Consequently, students who participated in the studies felt that their connection to their instructor was weaker in online courses than in their on-campus courses. When students sense a lack of "caring" from their online instructors, they reported feeling isolated and like they had to "teach themselves."

This study suggests that online instructors, more so

Online Education Support Resources

Are you a Student? Visit CRC's [Online Education](#) page for students.

Welcome to the Cosumnes River College Online Education Support Resources website. This site is as a resource for faculty and staff to learn about new and emerging instructional innovation, develop technology skills, or create professional audio, video, and media recordings for use in CRC distance education courses.

Information about drop-in support via Zoom is available on the following document:

[CRC DE Support Drop-in Hours](#)

Faculty and Staff can also get help via email: CRC-DE@crc.losrjcs.edu



What To Do Checklist

The interruption of our face-to-face teaching framework produces a lot of questions. Here are some suggested steps to support our students online.

[Explore What To Do](#)



Pre-Semester Checklist

We've created the Pre-Semester Checklist for Online Courses; which communicates items that you should consider including in your Canvas course to help raise the success rates of your online courses.

[Pre-Semester Checklist](#)

Student Resources & Support

CRC offers two free, self-enroll Canvas courses:

- Online learning self-assessment
- Online learning readiness tutorials

In addition, CRC offers a transferable, 1-unit class to develop online learning skills, called Skills for Online Student Success (HCD 320), as well as provides technology resources.

Online Learning: Self-assessment

ONLINE LEARNING: SELF-ASSESSMENT | CRC

This is not an academic online course.

The primary purpose of this free course is to help you decide whether to take an academic online course. If you decide to take an academic online course, consider completing the free course [Online Learning: Readiness Tutorials](#), which includes additional materials to help you become a successful online learner.

This free course is designed primarily for students:

- who have never taken an online course
- who have previously not done well in an online course
- who are interested in learning how to be a better online student

Begin with **Module 1 - Identify Your Strengths and Weaknesses**, which includes SmarterMeasure. This is an assessment to help you discover your strengths and weaknesses as an online learner. Once you have viewed all of the items in Module 1 you can access the items in **Module 2 - Introduction to Online Learning**.

Once you begin, you can proceed through the course by selecting Next on each page; you can also use the Modules link in the Course Navigation menu.

Online Learning: Self-assessment

- [Module 1 - Identify Your Strengths and Weaknesses](#)
- [Module 2 - Introduction to Online Learning](#)
- [What's Next](#)

Module 1 - Identify Your Strengths and Weaknesses

The SmarterMeasure readiness for online learning assessment will provide you with valuable insights about obstacles you may need to overcome to succeed in an online course. You do not have to complete all the sub-tests at one time. You may come back later and work through the remaining sub-tests. Remember to select the "next" button at the end of the last sub-test to find your results. You will first be presented with a summary of all of your results and then will be able to read detailed information about the meaning of each of your scores.

Carefully review your results before you move on to the next level, so you can focus on building the skills you need to triumph. Warning! One of the sub-tests measures your typing speed and accuracy. You might want to make sure you are using a laptop or desktop computer for this part. You can start the assessment and come back to it at a later time to finish it.

The SmarterMeasure self-assessment is designed to help you learn:

- how your personal attributes, life style, approach to learning, and skills fit with the online learning environment
- how to improve any weak areas and optimize your online learning strengths

The following are the steps to use SmarterMeasure to learn about your strengths and weaknesses:

1. Select the Next button at the bottom of this page.
 2. Select the button to "LoadSmarterMeasure (30-40 minutes) in a new window" on the next page.
 3. Complete SmarterMeasure. It has several sub-tests. At the bottom of each sub-test there is a blue Save and Continue button. You do not have to complete the entire assessment at one sitting. You can re-enter SmarterMeasure by returning to this page and select the next button. The results from what you completed previously will be saved and you will continue where you left off. **Hint** - it is best to complete a sub-test before you take a break. **Second Hint** - if you have trouble submitting a sub-test it might be because you left a question unanswered.
 4. When you have completed all sub-tests, you will get a page that says, *A Guide to Interpretation of your SmarterMeasure Score*. This page is very important. It contains the following:
 - The option to print or download the entire report.
 - The option to email the report.
 - Information about how the rest of the Quest workshop (access via the free course Online Learning: Readiness Tutorials) can be used to improve your weaker skills for online learning.
 - A link to the Summary page which may be the most important part of this report. Generally green means you have strong skills, yellow means your skills are moderate, and red means you might work on improving these skills. For the learning styles sub-test nothing is good or bad, it just shows preferred ways of learning.
 - Lastly, all the sub-tests are listed on the left of the Summary page. You can select each sub-test and read details about what your score means. Each of the detailed pages includes additional resources for support.
 - To return to this class, look at the top of your browser. There should be a tab that says SmarterMeasure and has the CRC logo. Select that tab and you will be back in Canvas.
-

Module 2 - Introduction to Online Learning

Now that you know a bit more about yourself, it is time to get better informed about what you will need to do to excel online. Start here in Module 2 - Introduction to Online Learning to get a big picture view of what lies ahead! This module is designed to help you do that. Watch the short presentation, Introduction to Online Learning, to learn a little bit about what is in store for you in an online class. You will learn about a few of the myths (and realities) about learning in this environment.

Learning Objectives

In this module you will:

- learn the differences between online and classroom instruction
- learn myths and realities of online learning

Learning Activities

- watch the video Introduction to Online Learning (12 minutes)

Learning Assessment

- complete the Introduction to Online learning quiz

To advance to the next page, select **Next**.

◀ Previous

Next ▶

Online Learning: Readiness Tutorials

ONLINE LEARNING: READINESS TUTORIALS | CRC

This is not an academic online course.

The primary purpose of this free course is to help you learn the skills that will help you succeed in an academic online course. You may have completed the free course Online Learning: Self-assessment (that is where modules 1 and 2 are located), but that free course is not required for this one.

This free course is designed primarily for students:

- who are new to online learning
- who have previously not done well in an online course
- who are interested in learning how to be a better online student

Begin with **Module 3 - Getting Tech Ready**. This covers the technology used in most online courses and will help you become familiar with the hardware, software, and network requirements to support your success. **Module 4 - Becoming an Effective Online Learner** reviews the organization and study skills are known to help students succeed in online classes. After completing those modules, take the **Readiness Tutorials Quiz** to demonstrate your understanding of the technology requirements and skills to help you succeed in online classes.

Once you begin, you can proceed through the course by selecting Next on each page; you can also use the Modules link in the Course Navigation menu.

Online Learning: Self-assessment

- [Module 3 - Getting Tech Ready](#)
- [Module 4 - Becoming an Effective Online Learner](#)
- [Readiness Tutorials Quiz](#)

Module 3 - Getting Tech Ready

You know what your mission is, and you know what skills you need to improve. But what about technology? Do you have the tools you need to take an online class? Do you even understand the terminology? Get up to speed before it's too late!

Every good adventurer knows he/she needs to have the right equipment before the journey begins. This module will inform you about what tools you will need and provide some suggestions on different options you have. The Getting Tech Ready presentation will give you with a good foundation so even if you don't consider yourself to be tech savvy, you'll feel a lot more comfortable starting your online course. Be sure you also check out the other resources in this module. You'll find valuable information that is bound to come in handy if you get into a pinch!

Learning Objectives

In this module you will:

- learn the hardware and software requirements of most online courses
- learn the value of a fast Internet connection
- learn how to locate and download the free plug-ins your course may require
- learn the basics of email
- learn how to obtain tech support if you need it

Learning Activities

- view the Getting Tech Ready video (12 min)

Learning Assessment

- complete the Readiness Tutorials Quiz after viewing the videos in modules 3 and 4

*To advance to the next page, select **Next**.*

Next ▶

Module 4 - Becoming an Effective Online Learner

Have your map? Know where you're going? Check! Equipment in order? Got the tools you need? Check! But what about your skills? Let's sharpen some of those organization and study skills you'll need to be effective online. You're bound to learn something new that will help you make the grade! Module 4 is where the rubber meets the road. You have the background information to be successful online, but the tasks that lie ahead of you will require dedication and self discipline. In this module you will learn what it takes to be a good online student. If you pay attention to the information you are given here, you are bound to succeed! Watch, listen and learn! You'll be glad you did! This module has four videos. Don't miss any of them.

Learning Objectives

In this module you will:

- learn how to organize your space, your course materials and yourself
- learn tips and tricks for time management
- learn the importance of setting up a schedule that works for you
- learn the perils of procrastination
- learn how to communicate effectively online (asynchronously and synchronously)
- learn the difference between reading print and online texts
- learn strategies to stay focused when reading (and studying) online

Learning Activities

- view the Organizing for Online Success video (10 min)
- view the Online Study Skills and Time Management video (12 min)
- view the Communications Skills for Online Learning video (13 min)
- view the Online Reading Strategies video (9 min)

Learning Assessment

- complete the Readiness Tutorials Quiz after viewing the videos in modules 3 and 4

To advance to the next page, select **Next**.

◀ Previous

Next ▶

Faculty Training & Resources

FLC is currently pushing for faculty to progress through the District sponsored Foundations of Canvas Course Design course as it covers the same information that was present in FLC's Online Teaching Institute Crash Course.

Since June 2020, FLC has offered and will continue to offer the following trainings, one training session per week during the semester:

- Introduction to Universal Design
- Canvas Accessibility Tools
- Introduction to PlayPosit
- Using Canvas Studio
- All Things Canvas Quizzes
- Canvas Groups – Creating, Messaging, Managing
- TechConnect Zoom, Student Connect, and Your Canvas Course
- New Analytics and Your Canvas Course
- Improving Video in Your Canvas Course
- Using the NEW Rich Content Editor (RCE) in Canvas

In development

PlayPosit

Per-request from attendees of prior sessions, a more robust version of PlayPosit training is in development. The PlayPosit tool allows faculty to create innovative videos that can combine multiple clips, add-in grade syncing questions, include discussions, and check on viewership by the students. The more in-depth training is going to have faculty create their own interactive for use in either the course they are currently teaching or a future course.

FLC Canvas Tutorials

This Canvas course is available to Faculty and includes tutorials specific for FLC. This Canvas course provides textual and video walkthroughs on how to accomplish tasks such as adding a Lab Waiver to your course, adding direct links to office hours to the course navigation, explaining how TechConnect integrates with Canvas and what best practices are for using it.

Adjunct Faculty Portal

In conjunction with the Professional Development Coordinator, a Canvas course is being setup for Adjunct faculty. This course serves as an orientation to Los Rios and its systems, and includes a DE specific section with best practices for online teaching, items from the FLC Canvas Tutorials course, common resources and trainings, and links to drop-in office hours to make sure adjunct faculty know of the resources available to them.

Student Resources & Support

FLC offers portals to help familiarize students with Canvas as well as provide connections to specific major information and appropriate success coaches. An example of the STEM Meta Major page is:

FLC Science, Technology, Engineering, and
Mathematics (STEM) ↗

Edit



This space is to guide new students in familiarizing and answering your questions about getting started at FLC. It contains information and tutorials that introduce you to our college's student programs & services, online learning platforms, [your very own success coach](#) and much more.

Sacramento City College

Faculty Training & Resources

- OTLA (230+ faculty in intensive 6-9-week pedagogy training; 2 CEUs offered via UC Davis)
- Drop-in lab where faculty receive one-on-one help with Canvas
- Reimbursement for faculty who take @ONE courses, including certification
- DAPIC programs for captioning and OERs
- SCC has a facilitated, professional lecture recording studio (in non-pandemic times)

Welcome to the OTLA

You're about to embark on a 9-week journey with a cohort of peers, and we want it to be exciting and transformative. Designing an online class takes planning, and developing the material takes time. Before our classes officially begin next week, we wanted to give you some time to familiarize yourself with our course policies and layout. Thus, the "Week 0" Orientation Module.

Honestly, the majority of this course is reading and reviewing module items. But every once in a while you will participate in a learning activity or assignment that will help to emphasize what you have read in each weekly module. Weekly modules begin and end on Sundays.

Most participants say that there is so much to learn, but don't worry about learning it all...just bite off what you know you want to learn and what you plan to take with you when you leave. Learn what you know you will use in your own classes (whether you are planning to teach online or you just want to use Canvas as a supplement to your in-person classes).

OTLA Course Outcomes

At the conclusion of this 9-week course participants will be able to:

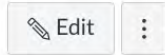
1. **Design and create an effective online course**
 - including 3 working modules in your very own development Canvas shell (you will find examples at the bottom of our [course modules page](#))
 - Orientation Module
 - Week #1 - Learning Unit Module
 - Week #2 - Learning Unit Module
2. **Facilitate an effective and ADA accessible online course**
 - supporting your understanding of the concepts of teaching
 - creating an organized structure for your course modules
 - connecting all that you do to unit-level (module) learning objectives and course learning outcomes
 - providing clear instructions in your lessons
 - building content pages that are properly formatted
 - "accessible" (video captions, headers, hyperlinks, images with "alternative text"), and resource links to Canvas Guides) ["terms are defined here"](#)

We'll be working toward this goal in steps, and we'll start by putting some foundations in place.

Student Resources & Support

- Student Success in Online Learning (Quest) Tutorial (> 10,000 enrolled)
- OEI grant: improving student services online capacity and Canvas shells to support students (2019-2020)
- Student Technology Help Desk

Quest for Success: Student Success in Online Learning



Welcome to Student Success in Online Learning!

This brief tutorial will help you better prepare yourself for taking online or partially online courses at Sacramento City College. **Read and follow the instructions below!**



Complete all 5 quizzes with a score of at least 4/5 in every one and earn a certificate of completion that will be emailed to you to give to your instructor. Keep a record of your certificate so that you can provide it in multiple courses if necessary.

1. Click "Next" below to get started
2. Complete each video and quiz in order: video 1 before quiz 1, quiz 1 before video 2, video 2 before quiz 2, etc.
3. Click "next" after the final quiz and survey
4. Follow instructions **perfectly** on the final page in order to receive your certificate

If you experience problems with these videos, quizzes, or your certificate, please contact onlinescc@scc.losrios.edu.

[NEXT: Video 1: Intro to Online Learning](#)



Open Education Resources

The Open Educational Resources initiative is aimed at reducing the cost of attending a community college campus, where the bill for books and supplies often surpass the cost of tuition and fees. Open educational resources provide students and their families with sorely needed financial relief, largely through the availability of high-quality teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license, such as a Creative Commons license, that permits their free use and repurposing by others. Open educational resources can include full courses, course materials, textbooks, faculty created content, streaming videos and more.

Open educational resources give students more flexibility in learning, and research shows most students perform as well or better using open educational resource course materials compared with students using traditional textbooks.

Key to Open Educational Resources initiative is the [Zero Textbook Cost Degree program](#), which evolved from research showing community college students were not taking classes, completing courses, or securing degrees and certificates because they did not have the money needed for textbooks and materials required for specific courses. This is especially challenging for low-income students and students who are working to support their family.

- [Vice Chancellors for Educational Services and Support](#)
- [Assessment Advisory Committee](#)
- [ESS Memos](#)
- [What We Do](#)
- [Student Service](#)
- [SB 206 NIL Working Group](#)
- [Open Education Resources](#)**
- [Flexible Calendar](#)
- [Transfer and Articulation Program](#)
- [Transfer Level Gateway Completion Dashboard](#)



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- [Apply for College](#)
- [Pay for College](#)
- [Career Education](#)
- [Support Services](#)

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- [Guided Pathways](#)
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California 2-Year Colleges to Begin \$115M OER Experiment

The California Community Colleges Chancellor's Office will send funds to the state's 116 community colleges to create more open educational resource classes beginning next month.

By [Suzanne Smalley \(/users/suzanne-smalley/\)](/users/suzanne-smalley/) // February 4, 2022

California governor Gavin Newsom made [headlines \(https://calmatters.org/education/2021/01/newsom-fund-free-textbooks/\)](https://calmatters.org/education/2021/01/newsom-fund-free-textbooks/) last year when he committed \$115 million to expand the state's investment in a zero textbook cost program that largely relies on open educational resources, a move Newsom said would "deal with the racket ... that is the textbook industry."

More than six months after Newsom signed legislation allocating the funds, little has been publicly announced about how the state's community college system intends to roll out the expanded program, leaving advocates, philanthropists and community college leaders who are eager to plow ahead worried.

Marty Alvarado, executive vice chancellor for educational services in the California Community Colleges Chancellor's Office, told *Inside Higher Ed* her team has been hard at work for the past several months "getting clarity on the intent of the legislation in order to ensure that the students actually benefit from this investment." She said the system plans to release application materials to the state's 116 community colleges by the end of this month and an initial wave of funding will commence by next month.

OER are usually online, openly licensed and free to students, making them an appealing alternative to far more expensive textbooks for cash-strapped college students. In California, where a three-credit community college course only costs \$138, textbook costs are often higher than tuition, community college officials and advocates say. Community college leaders say more widespread use of OER will ensure more students graduate, particularly since 60 percent of California's 1.8 million community college students are housing insecure and 50 percent are food insecure, based on [data collected \(https://hope4college.com/wp-content/uploads/2019/03/RealCollege-CCCCO-Report.pdf\)](https://hope4college.com/wp-content/uploads/2019/03/RealCollege-CCCCO-Report.pdf) in 2019.

Alvarado said the many months her team has spent planning a method for data collection and other aspects of program design will prove worthwhile. She said the system had relatively little data to study

from the state's [original and much smaller zero textbook cost \(https://sparcopen.org/our-work/california-governors-zero-textbook-cost-degree-budget-proposal/\)](https://sparcopen.org/our-work/california-governors-zero-textbook-cost-degree-budget-proposal/) program, which launched in 2016 and ran through 2019 with a total \$5 million investment. That [grant program \(https://www.cccoer.org/ca-ztc-degree/\)](https://www.cccoer.org/ca-ztc-degree/) yielded nearly \$43 million in savings for students and successfully developed 37 ZTC pathways encompassing 404 courses across 19 colleges, [according to the chancellor's office \(https://www.cccco.edu/-/media/CCCCO-Website/Reports/cccco-report-zero-cost-textbook-rev041221-a11y.pdf?la=en&hash=168160F9653C3B1E707BF3E9F7DA90889314B0B7\)](https://www.cccco.edu/-/media/CCCCO-Website/Reports/cccco-report-zero-cost-textbook-rev041221-a11y.pdf?la=en&hash=168160F9653C3B1E707BF3E9F7DA90889314B0B7), which arrived at the estimate based on what colleges reported.

Alvarado said a key focus now is on understanding how students benefit from investments in OER as opposed to subsidized textbooks, a point of differentiation that she said was not closely tracked in the original 2016 program. Alvarado is also working closely with the system's Academic Senate to better understand how curriculum development translates into which courses are offered using OER.

Institutions will be required to report data collected to the system and account for how money was used each term.

Alvarado said her goal is to remove the cost of textbooks as a "friction point" altogether, because the expense contributes to students dropping out.

"My dream would be that we would find a way to fully subsidize the cost of textbooks going forward," Alvarado said. "Our students are making a decision between 'Do I eat something today?' or 'Do I spend \$100, \$200, \$300 on textbooks across every course?'"

Newsom wants California to become a national model for reducing or even eliminating textbook costs for students. He said last year that the "usury nature of the costs associated with textbooks ... make no sense whatsoever except to those that are the beneficiaries of huge rewards on the backs of our children."

While the California investment dwarfs any other state investment in OER, it is not alone in experimenting with it. The State University of New York system has received \$4 million per year in state funding for OER since 2017. SUNY officials said the investment in OER has so far saved students more than \$66 million. They said OER spared 179,644 of 394,220 SUNY students over \$19 million in the 2020–21 school year alone. *(Note: This paragraph was revised to correct the annual amount of state funding the SUNY system receives for OER. The proposed allocation for the 2022-2023 academic year was not doubled to \$8 million and remains at \$4 million.)*

Mark McBride, who oversees open educational resources for SUNY, said [research \(https://www.proquest.com/openview/c7cf2b53de8a619954dcb17703244935/1?pq-origsite=gscholar&cbl=18750&diss=y\)](https://www.proquest.com/openview/c7cf2b53de8a619954dcb17703244935/1?pq-origsite=gscholar&cbl=18750&diss=y) shows [\(https://link.springer.com/article/10.1007/s11423-019-09700-4\)](https://link.springer.com/article/10.1007/s11423-019-09700-4) OER materials are of equal if not better quality than traditional textbooks and additionally offer faculty flexibility to make changes to content so their “voice can be heard in the text.”

But the cost considerations are paramount. McBride said many SUNY students are supporting not only themselves but also their families. He said he has seen scores of students fail classes when temporary access they received from publishers via professors expire.

“By the third or fourth week, a number of our publishers are putting up those blockades, so students have to make good on the payment to the publishers in order to just successfully complete a class,” McBride said. “That’s a showstopper.”

Publishers say textbook costs have declined by 36 percent over 10 years and that their long track record ensures high-quality course materials.

“One of the most important advantages of higher education publishers in the private sector is that they’re already doing a highly effective job of delivering top-quality course materials on a consistent basis over the course of time,” said Kelly Denson, vice president of education policy and programs at the Association of American Publishers. “They’re more proven.”

Denson said student spending on textbooks is just \$456 per year, citing cost estimates provided by “Student Watch,” a report on student buying behaviors that is produced by OnCampus Research and paid for by the National Association of College Stores. The College Board puts the annual cost at [\\$460 \(https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf\)](https://research.collegeboard.org/pdf/trends-college-pricing-student-aid-2021.pdf) for students at two-year institutions. The National Center for Education Statistics estimated the cost of books and supplies at two-year institutions to be an average of [\\$1,531 \(https://nces.ed.gov/programs/digest/d20/tables/dt20_330.40.asp\)](https://nces.ed.gov/programs/digest/d20/tables/dt20_330.40.asp) in 2019–20. Some, but not all, institutions count laptops as supplies, skewing the \$1,531 number somewhat higher than it would be for just textbooks.

Denson said more data are needed to understand whether the original California ZTC program succeeded. She pointed to a [report \(https://lao.ca.gov/Publications/Report/4372#Instructional_Materials\)](https://lao.ca.gov/Publications/Report/4372#Instructional_Materials) from the state’s Legislative Analyst’s Office, which questioned the recent \$115 million expansion of the program, given the delays in reporting outcomes from the 2016 to 2019 iteration. Denson also said publishers have

addressed concerns about costs by developing ebooks and rental programs to help students access books more affordably.

Nicole Allen, director of open education for SPARC, an advocacy organization that promotes open access, disputed the notion that publishers have moved to digital books to create savings, arguing that since Amazon, Chegg and eBay have made it easier to buy used books, publishers have shifted to digital books to goose profits. She noted that “Student Watch” found textbook spending increased by 10 percent in 2020–21.

“The textbook industry is trying to shift to a model where they get to automatically bill students for short-term access to digital materials, and that comes with a whole set of concerns in terms of repeating that cycle of prices rising rapidly,” Allen said. “The watershed that we’re in right now is the opportunity to think bigger about models for course materials that leverage open educational resources in a larger-scale way.”

Whatever the true cost of textbooks, OER advocates say even the smallest amount of money spent on them can make the difference in whether a student earns a degree. Many low-income students simply can’t afford course materials and try to skate through without them, which inevitably leads to poor academic outcomes.

James Glapa-Grossklag, academic dean at College of the Canyons, a community college in California, served as technical assistance provider for the California Community Colleges ZTC program from 2016 to 2019. He said the [research shows \(https://www.cccoer.org/ca-ztc-degree/\)](https://www.cccoer.org/ca-ztc-degree/) that the adoption of OER increases student success, particularly for low-income students. California Community Colleges is the largest public education system in the country, which Glapa-Grossklag said often means, “where California goes in higher education, so goes the nation.”

Glapa-Grossklag scoffed at publishers asserting average textbook costs are only \$460.

“Twenty dollars for a textbook is expensive if you don’t have \$20,” Glapa-Grossklag said. “We are not here to educate the elite.”

Geoffrey Baum, executive director of the Michelson Philanthropies, which advocated for the state’s OER investment, called Newsom’s commitment “a watershed moment for OER and for educational equity.”

Baum, who previously served as president of the California Community Colleges Board of Governors, said about half of community college students get complete tuition fee waivers based on income, but large course-material fees remain a vexing problem. He said the organization got involved after the founder of

the philanthropy saw an article about community college faculty members digging into their own pockets to cover textbook fees for students who were going without the books and often dropping out because of it.

“This is the most challenged group of students, but are those in whom we depend the most for the future of our country for everything to work,” Baum said. “We can’t control the cost of housing, we can’t control the cost of food, we can’t control the cost of health care. But the system and the players within the system can at least control the cost of instructional materials.”

Read more by [Suzanne Smalley \(/users/suzanne-smalley\)](/users/suzanne-smalley)

Resources

ASCCC OERI Supported Resources

ASCCC OERI Department of Finance Progress Report – February 1, 2022

View the [ASCCC OERI Department of Finance Progress Report](#) and the [report summary](#).

California Community Colleges Open Educational Resources

OER Collections for the California Community Colleges, organized discipline, CSU general education requirements, Transfer Model Curriculum, and C-ID.

- [OER by Discipline](#) – Updated 12-12-21.
- [OER by California State University General Education](#) – Updated 11-29-21
- [OER by Transfer Model Curriculum](#)
- [OER by C-ID](#) – “C-ID” refers to the [Course Identification Numbering System](#) that establishes articulation among the California Community Colleges.

OER and ZTC

Access the [OER and ZTC](#) page to find all the latest information about Zero Textbook Cost (ZTC) degrees and related textbook affordability requirements. In addition to state-specific requirements related to textbook affordability, there is a federal requirement that course material costs be made available to students at the time of registration. In other words, in addition to “marking” no-cost sections, students should be provided with information regarding text costs at the time of registration. Typically, a link to the bookstore’s text information is found in the schedule – ideally ensuring that both the costs of commercial texts and access to free digital resources (and low-cost print options) is available to students. **See samples of textbook information in course schedules.**

COVID-19 Resources

[COVID-19 Faculty Resources](#) – A list of resources compiled by ASCCC

[OERI Resources in Canvas Commons](#) – Course resources available for download in Canvas Commons

[Canvas Video Resources](#)

[CVC-OEI Remote Instruction and Services Resources](#)

[TechConnect Zoom \(CCC Confer/Confer Zoom\)](#) – Resources and specific updates on how each of the services (CCC Confer/Confer Zoom and 3C Media Solutions) provided by CCC TechConnect can assist you.

ASCCC OER Quick Guides

[ASCCC OER Quick Guides](#) offers a collection of openly licensed resources directly – and indirectly – related to OER advocacy, adoption, and development. If you have a resource you’d like us to share – or a resource you’d like us to develop – **please let us know.** For most topics, we’ve provided an accessible webpage (or two) and a PDF designed for printing.

Open Educational Resources

“Open Educational Resources” houses a collection of OER resources organized by what they have to offer and/or what they allow you to do.

OER-Related Resolutions

The ASCCC OERI encourages local senates to adopt resolutions supporting the use of OER. The ASCCC has adopted a number of **resolutions about OER specifically and others related to reducing costs** for students more generally. **Local senates have adopted numerous resolutions** that you can consider as you prepare to do the same at your college. **Please let us know if you have a resolution** that should be included in our collection.

OER and Success

Is there evidence that OER increases student success? How do you gather data at the local level to demonstrate the effectiveness of OER? **“OER and Success” showcases OER-related data** and provides guidance for those seeking to gather such data at the local level. **Please let us know if you know of a resource** that should be included in our collection.

OER Advocacy

How do you advocate for OER at the local level – and how do you ensure that you, the advocate, are well informed? **Access our collection of OER Advocacy resources** for some suggestions.

OER and Students

How do you talk to students about OER – and how do you help students become OER advocates?

Access our resources for talking to students about OER.

OER, Articulation, and Curriculum

If OER is to become part of your local culture, how do you address articulation concerns and integrate OER into the curriculum process? **Access Articulation, Curriculum, and Open Educational Resources** for answers and ideas.

OER Development

OER development – whether authoring or creating – needs to begin with a clear understanding of accessibility, attributions, and licensing. Access information related to OER development in our OER developers section.

Printing OER

The “o” in OER is for open, not online, although OER is typically digital and available online. Why – and how – do you get your OER printed?

Legislation and Current Events

As in many states, California law now requires that the California Community Colleges and the California State University “mark” course sections that have no associated textbook costs. [Read about SB 1359.](#)

What is “inclusive access” and why are there concerns about it?

- [Read more about “inclusive access” or “automatic billing”.](#)
- [InclusiveAccess.org: Get the facts about automatic textbook billing](#)

This page last updated 12-28-21.



Photo by Daniel on Unsplash



CCC Community Hub

A place for the CCC community to create,
collaborate and share OER content.

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OER Collections





83 Resources



28 Resources



58 Resources



45 Resources



4 Resources



148 Resources



69 Resources

College Groups

A to I

J to Q

R to Z



Allan Hancock College



American River College



Antelope Valley College



Bakersfield College



Barstow College



Berkeley City College



Butte College



Cabrillo College



Cañada College



Cerritos College



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Feather River College





Gavilan College



Glendale Community College



Golden West College



Grossmont College



Hartnell College



Irvine Valley College



Imperial Valley College

Collaboration Across Colleges



Community College Consortium
for OER



Student Advocacy



Shared publications



Mathematics - CCC

About CCC Community Hub

The CCC Community Hub is an Open Educational Resources (OER) network for collaboration among the California community college system. This hub came to be out of a demand for a localized repository with rich collaborating, sharing, and evaluation tools. All California Community Colleges have their own group inside the hub. There are also discipline hubs for the California community to work together on developing and supporting OER.

Anyone may access any published materials on OERCommons. What the hub and the groups inside the hub allow for is a private place to collaborate with your group members before publishing, a place to work independently before you are ready to publish, and a place to import others' published open content into your group.



To join a group, find your college or the discipline group you wish to join and click on the logo. Once inside, click on "Request to join." It's that simple! An email will be sent to your group administrator(s) who have the authority to grant you membership permission. As a group member, you can post and publish materials. In fact, the only difference between an administrator and a member is that the administrator can approve new members and change settings. If you feel that you should have those responsibilities for your college (maybe you are an OER coordinator or librarian), then email:

Ryan@20mm.org to request that permission.

Thank you to the Michelson 20MM Foundation for supporting this hub. Please note that the CCC logo is used for individuals to recognize the hub. It does not imply endorsement by the CCC Chancellor's Office.

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Funded through the generosity of the Michelson 20MM Foundation.

For questions about this hub, please contact Ryan Erickson-Kulas: Ryan@20mm.org.

Open for Anti-Racism (OFAR)



Making Classrooms Antiracist with OER and Open Pedagogy

The Open for Antiracism (OFAR) program – co-led by CCCOER and College of the Canyons – emerged as a response to the growing awareness of structural racism in our educational systems and the realization that adoption of open educational resources (OER) and open pedagogy could be transformative at institutions seeking to improve. Although many institutions have published impressive statements decrying racism, calling for change, and putting equity into their strategic plans, these haven't always been translated into teaching practices that directly affect students.

Learn more about this program at the [CCC OER Open For Antiracism Program site](#).

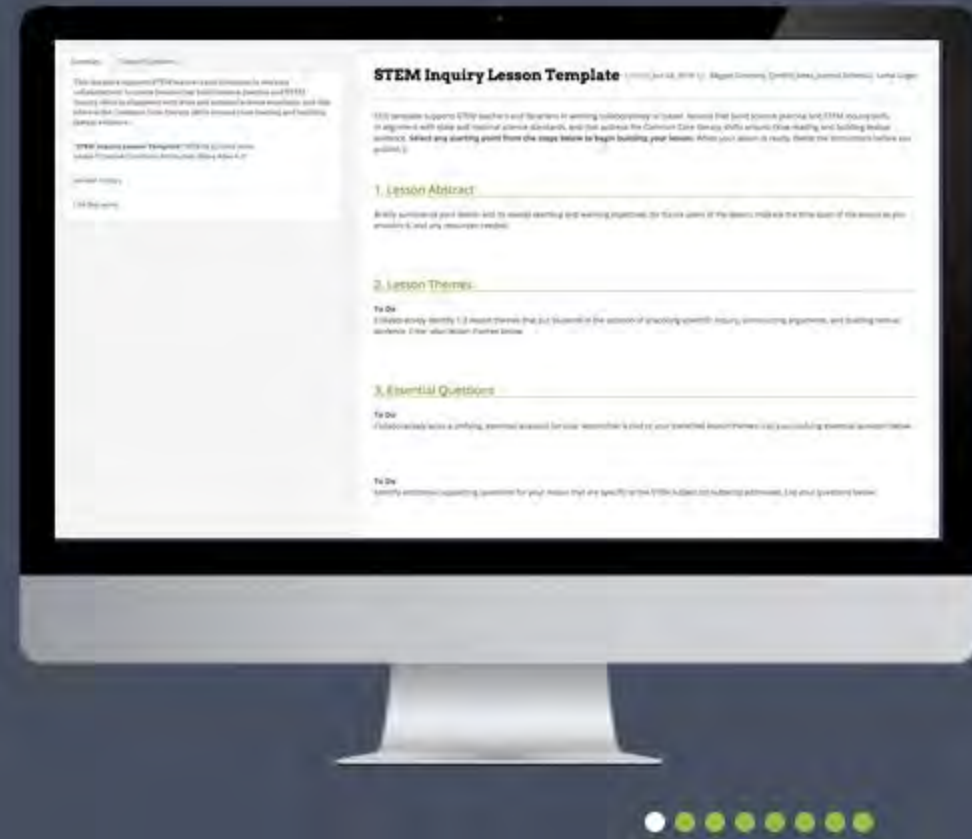
OER Tutorials

Open Author

Get started using our OER authoring tool, Open Author. This video walks you through how to author and remix; including how to add and format content, import and attach resources, embed media, add co-authors, check for accessibility, describe your resource, select a license, align to standards, publish, and download.

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STEM Inquiry Lesson Authoring Template

This template supports STEM teachers and librarians in working collaboratively to create lessons that build science practice and STEM inquiry skills in alignment with state and national science standards, and that address the Common Core literacy shifts around close reading and building textual evidence.

[View Template](#)

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