



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

Improving College Access and Success through Dual Enrollment

Technical Appendices

CONTENTS

Appendix A. Data and Methods

Appendix B. Additional Tables

Olga Rodriguez, Daniel Payares-Montoya, Iwunze Ugo, and Niu Gao

Supported with funding from the Bill & Melinda Gates Foundation, the College Futures Foundation, and the Sutton Family Fund

Appendix A. Data and Methods

Research Questions

Our research on the community college outcomes of former College and Career Access Pathways (CCAP) dual enrollees uses both quantitative and qualitative data to answer the following overarching questions:

1. What are the demographic characteristics of CCAP students that enroll in community colleges after high school graduation?
2. Do former CCAP students have stronger and more equitable short- and medium-term outcomes post-AB 288 compared to students from other dual enrollment program (non-CCAP) and other CC students without dual enrollment experience (non-dual enrollees)?
3. What role does CCAP play in improving and strengthening pathways into and through community college?
4. What are the challenges to better serving and supporting underserved students through CCAP?
5. How did the pandemic affect dual enrollment course offerings and supports?

Data Sources

The report relies on two primary data sources, student data and stakeholder interviews.

Student Data

Our student-level data comes from the Chancellor’s Office Management Information System (MIS). Dual enrollment students are identified using “special admit” flag in the MIS data. Our analytical sample includes 405,019 high school students who graduated between the 2015–16 and 2019–20 school years and that were included in a previous PPIC’s report, *Dual Enrollment in California. Promoting Equitable Student Access and Success*. Note that in the previous study, the sample size for dual enrollment students (CCAP and other forms of dual enrollment) was 438,417. The vast majority of the difference (83%) is due to the approach used to track students across institutions. For this study, we use social security numbers as the sole way to identify unique students. In the previous study, the authors relied on the student identification number, which is assigned by the college, and the college where students were enrolled. Because a student can enroll in multiple colleges at the same time (i.e., different student identification numbers for the same person), using social security numbers allows us to have an unduplicated count of students across colleges. The remaining difference in sample size is the result of eliminating some inconsistencies in the database, like students that appeared to be enrolled in dual enrollment courses after graduating from high school.

In our sample for this study, students took at least one dual enrollment course during their high school years (i.e., 2012–13 to 2019–20 school years) and enrolled in credit courses in a community college after graduating from high school. MIS does not have much information about students’ high school records; we infer and estimate their high school class based on the age when they first took a dual enrollment course at a community college. The California Department of Education publishes student enrollment based on grade and age, and we rely on this information to estimate their time of graduation (assuming graduating within four years), and high school grade levels. Note that our sample of “special admit” students also include private and home-schooled students; therefore, the number of students is higher than Kurlaender et al. (2021)—which includes only public high school students that were matched to MIS data. The identification of CCAP and other dual enrollment modalities is based on the scan of college documents and reports conducted for Rodriguez and Gao (2021; see the [Technical Appendix](#)). In addition, the analytical sample includes 1,330,227 community college students who enrolled in a credit course at a community college and were part of the same graduating classes as CCAP students (e.g., non-

dual enrollees). For this group of students, we inferred their high school class based on the student educational status on MIS, which provides information about the year in which the student graduated from high school. When the information was not available, the cohort year was estimated based on the age when they first took a non-credit course at a community college.

- CCAP student: a student is considered a CCAP student if he/she *ever* participated in a CCAP course during high school years.
- Other dual enrollment student: a student is considered to be part of other dual enrollment modalities if he/she never participated in the CCAP program but took part in an Early College High Schools (ECHS) and/or Middle College High Schools (MCHS) and/or other form of dual enrollment course during high school years.
- Non-dual enrollment student: a student is considered a non-dual enrollment student if he/she never participated in a dual enrollment program.

In our analytical sample, 88% of dual enrollment students are in other types of dual enrollment and 12 percent are CCAP. Of those dual enrollment students, 52.7 percent ended up enrolling in community college after graduating from high school (52.2% from the CCAP group and 52.7% from other dual enrollment modalities).

Interviews

To help inform and elucidate our quantitative findings, we conducted semi-structured interviews with 13 community college dual enrollment leaders across the state. Colleges were purposefully selected based on preliminary data on the success of former CCAP students in completing key milestones toward a degree, including completing transfer-level English and/or math. The sample included colleges that were among the top performers and colleges that did less well. Given that this study focuses on college outcomes, we interviewed only dual enrollment leaders from community colleges where CCAP programs were offered. Roles of participants included director of dual enrollment, vice president of student services, dean of student services, dean of instruction, among others. Interview participants were identified based on their involvement with dual enrollment at their college.

Interviews were conducted via video conference on Zoom over the course of five weeks during the spring 2023 term and were 60 minutes each. We asked each interviewee a variety of questions related to the role CCAP may be playing in the college recruitment strategy, the elements of the CCAP program that may have contributed to college access and success, and the challenges and opportunities to better serving underrepresented students through CCAP. Importantly, interviewees were also asked how the pandemic affected CCAP offerings and how the changes colleges made, specifically to online course offerings and supports, will be used moving forward. We audio recorded and took detailed notes during each interview to accurately capture the perceptions of each interviewee. Interview data was analyzed and used to synthesize themes, make observations, and to gain insights to investigate further and inform other interviews.

Appendix B. Additional Tables

TABLE 1 (F1)

Dual enrollment programs, especially CCAP programs, have grown significantly in the last few years

High school cohort	CCAP	Other dual enrollment
2015-16	469	66,839
2016-17	4,460	59,786
2017-18	7,292	70,761
2018-19	11,446	80,477
2019-20	24,382	79,402
TOTAL	48,049	357,265

SOURCE: Authors' calculation using COMIS data.

TABLE 2 (F2)

Latino and Asian students are equitably represented in CCAP programs

	CCAP	Other dual enrollment	State total	Proportionality index (CCAP)	Proportionality index (other dual enrollment)
Latino	57.9%	44.0%	53.2%	1.09	0.83
White	18.6%	26.9%	23.9%	0.78	1.12
Asian	11.7%	15.9%	9.4%	1.25	1.69
Two/more	3.9%	5.0%	3.6%	1.10	1.40
Black	3.6%	4.0%	5.9%	0.62	0.68
Other	0.6%	0.7%	0.5%	1.13	1.37
Unknown	3.7%	3.6%	3.6%	1.04	1.01
Pacific islander	0.3%	0.3%	0.5%	0.62	0.65
Native American	0.3%	0.4%	0.6%	0.43	0.60
Female	56.8%	54.7%	48.4%	1.17	1.13
Male	41.9%	43.6%	51.6%	0.81	0.84
First-generation	43.6%	33.0%	N/A	N/A	N/A
Non-first generation	30.4%	37.4%	N/A	N/A	N/A

SOURCE: Authors' calculation using COMIS data. CDE 12th grade enrollment data: 2016-2020.

TABLE 3

Almost half of the dual enrollment population enrolled in a California community college after high school

High school cohort	CCAP	Other dual enrollment
2015-16	378	38,805
2016-17	3,118	33,974
2017-18	4,571	38,651
2018-19	5,599	41,706
2019-20	11,418	35,201
TOTAL	25,084	188,337

SOURCE: Authors' calculation using COMIS data

TABLE 4

First-time non-dual enrollment students' cohorts are used as a comparison group for CCAP and other dual enrollment students

High school cohort	Non-dual enrollment
2015-16	321,996
2016-17	283,786
2017-18	265,699
2018-19	238,332
2019-20	220,414
TOTAL	1,330,227

SOURCE: Authors' calculation using COMIS data.

NOTE: Declines in sample size are due to earlier cohorts having more time to enroll in college—not necessarily reflective of pure declines in enrollment.

TABLE 5

Former CCAP students who enroll in community college after high school are a diverse group

	CCAP	Other dual enrollment	Non-dual enrollment
Latino	55.5%	44.3%	51.2%
White	21.1%	28.5%	21.3%
Asian	12.5%	15.2%	13.1%
Two or more	4.5%	5.3%	4.6%
Black	3.6%	3.7%	5.4%
Unknown	2.3%	2.3%	3.7%
Pacific Islander	0.3%	0.3%	0.5%
Native American	0.2%	0.3%	0.3%
Female	58.0%	49.7%	49.7%
Male	40.9%	48.9%	48.9%
First-generation	43.3%	37.4%	43.7%
Non-first generation	34.8%	42.4%	32.0%

SOURCE: Authors' calculation using COMIS data.

TABLE 6 (F4)

Higher shares of CCAP students intend to transfer to a four-year university or get an associate degree

CCAP						
	High school cohort					
	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Degree and transfer intending	68.5%	63.5%	61.9%	68.4%	65.3%	65.2%
Complete credits for HS diploma/GED	10.3%	14.6%	15.8%	10.3%	11.3%	12.3%
Move noncredit to credit coursework	5.3%	8.4%	9.1%	8.5%	6.8%	7.8%
Uncollected/Unreported	3.4%	3.8%	3.3%	2.8%	8.1%	5.5%
Other	12.4%	9.7%	10.0%	10.0%	8.4%	9.3%
Other dual enrollment						
	High school cohort					
	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Degree and transfer intending	57.1%	58.2%	60.3%	61.1%	61.8%	59.7%
Move noncredit to credit coursework	12.5%	13.2%	12.4%	11.1%	10.4%	11.9%
Complete credits for HS diploma/GED	12.2%	10.9%	10.7%	11.2%	10.9%	11.2%
Uncollected/Unreported	7.2%	6.7%	6.2%	5.7%	5.8%	6.3%
Other	11.0%	11.0%	10.4%	10.9%	11.1%	10.9%
Non-dual enrollment						
	High school cohort					
	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Degree and transfer intending	62.6%	64.8%	66.1%	68.2%	69.8%	66.0%
Complete credits for HS diploma/GED	12.6%	11.5%	11.8%	11.2%	10.4%	11.6%
Move noncredit to credit coursework	9.9%	9.1%	8.6%	8.0%	6.7%	8.6%
Uncollected/Unreported	5.7%	5.9%	5.0%	4.8%	5.1%	5.3%
Other	9.2%	8.7%	8.5%	7.8%	8.1%	8.5%
Degree and transfer intending students						
	CCAP	Other dual enrollment		Non-dual enrollment		
Female	65.0%	59.6%		65.6%		
Male	65.5%	60.0%		66.5%		
First generation	69.3%	66.2%		70.7%		
Non-first generation	65.2%	56.4%		63.6%		

SOURCE: Authors' calculation using COMIS data.

NOTE: Other includes earn a vocational certificate without transfer; Discover / formulate career interests, plans, goals; Prepare for a new career (acquire job skills); Advance in current job / career (update job skills); Maintain certificate or license (e.g., Nursing, Real Estate); Educational development (intellectual, cultural); Improve basic skills in English, reading or math.

TABLE 7 (F5)

Completion of transfer-level math and English, CCAP

CCAP			
High school cohort	Transfer level Math	Transfer level English	Both
2015-16	21.2%	34.4%	12.0%
2016-17	32.6%	52.3%	25.0%
2017-18	31.2%	53.6%	24.8%
2018-19	38.1%	58.9%	30.9%
2019-20	43.5%	62.7%	37.3%
Total	38.4%	58.6%	31.8%
Other dual enrollment modalities			
High school cohort	Transfer level Math	Transfer level English	Both
2015-16	29.1%	48.0%	21.4%
2016-17	30.2%	50.2%	22.8%
2017-18	34.2%	54.8%	27.0%
2018-19	40.0%	57.9%	32.4%
2019-20	40.9%	55.9%	32.9%
Total	35.1%	53.6%	27.5%
Non-dual enrollment			
High school cohort	Transfer level Math	Transfer level English	Both
2015-16	17.1%	34.4%	12.0%
2016-17	19.3%	38.5%	14.5%
2017-18	23.0%	44.6%	18.3%
2018-19	29.1%	48.1%	23.5%
2019-20	29.9%	46.4%	24.3%
Total	23.2%	41.9%	18.1%

SOURCE: Authors' calculation using COMIS data.

TABLE 8 (F6)

Around half of CCAP transfer/degree intending students complete 30 or more credits within 18 months

CCAP			
High school cohort	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
2015-16	32.4%	18.5%	13.5%
2016-17	49.9%	32.9%	29.7%
2017-18	49.2%	32.7%	27.7%
2018-19	50.3%	35.7%	28.1%
2019-20	54.6%	39.3%	Insufficient time
Total	51.8%	36.2%	27.9%
Other dual enrollment modalities			
High school cohort	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
2015-16	55.5%	37.7%	31.4%

2016-17	54.5%	37.9%	32.4%
2017-18	56.5%	40.4%	33.8%
2018-19	55.0%	39.5%	32.3%
2019-20	54.3%	38.1%	Insufficient time
Total	55.2%	38.8%	32.5%
Non-dual enrollment			
High school cohort	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
2015-16	37.8%	23.2%	22.9%
2016-17	38.2%	23.9%	23.4%
2017-18	38.8%	25.3%	23.5%
2018-19	37.5%	25.1%	22.3%
2019-20	35.8%	23.2%	Insufficient time
Total	37.7%	24.1%	23.1%

SOURCE: Authors' calculation using COMIS data.

TABLE 9 (F7)

Average first year GPA for CCAP transfer/degree intending students taking transferable courses is an area of concern

CCAP				
High school cohort	All courses	Courses taken within 1yr	Courses taken within 2yr	Courses taken within 2.5yr
2015-16	2.45	2.41	2.41	2.39
2016-17	2.59	2.60	2.56	2.57
2017-18	2.53	2.53	2.52	2.52
2018-19	2.61	2.66	2.62	2.61
2019-20	2.67	2.69	2.66	2.67
Other dual enrollment modalities				
High school cohort	All courses	Courses taken within 1yr	Courses taken within 2yr	Courses taken within 2.5yr
2015-16	2.68	2.67	2.65	2.65
2016-17	2.67	2.67	2.65	2.66
2017-18	2.71	2.70	2.70	2.70
2018-19	2.73	2.77	2.74	2.73
2019-20	2.75	2.78	2.75	2.75
Non-dual enrollment				
High school cohort	All courses	Courses taken within 1yr	Courses taken within 2yr	Courses taken within 2.5yr
2015-16	2.36	2.34	2.31	2.32
2016-17	2.35	2.33	2.31	2.33
2017-18	2.33	2.31	2.32	2.32
2018-19	2.32	2.35	2.32	2.32
2019-20	2.29	2.30	2.28	2.29

SOURCE: Authors' calculation using COMIS data.

TABLE 10 (F8)

Transfer/degree intending CCAP students complete more awards than non-dual enrollment students

CCAP			
High school cohort	Obtain credit awards within 1 year	Obtain credit awards within 2 years	Obtain credit awards within 3 years
2015-16	7.3%	19.7%	26.6%
2016-17	2.6%	11.1%	21.7%
2017-18	4.9%	13.4%	23.5%
2018-19	6.3%	18.8%	26.5%
2019-20	5.4%	17.8%	Insufficient time
Total	5.2%	16.5%	21.5%
Other dual enrollment modalities			
High school cohort	Obtain credit awards within 1 year	Obtain credit awards within 2 years	Obtain credit awards within 3 years
2015-16	6.6%	16.6%	26.7%
2016-17	5.5%	15.9%	26.0%
2017-18	6.7%	18.8%	28.6%
2018-19	6.3%	18.7%	27.1%
2019-20	6.9%	17.7%	Insufficient time
Total	6.4%	17.6%	25.3%
Non-dual enrollment			
High school cohort	Obtain credit awards within 1 year	Obtain credit awards within 2 years	Obtain credit awards within 3 years
2015-16	1.4%	6.3%	14.3%
2016-17	1.7%	7.3%	15.3%
2017-18	2.1%	8.3%	16.2%
2018-19	2.2%	8.5%	15.5%
2019-20	1.8%	6.7%	Insufficient time
Total	1.8%	7.4%	13.8%

SOURCE: Authors' calculation using COMIS data.

TABLE 11 (F9)

Within CCAP, Black and Latino students completed transfer level math/English within a year of enrollment at lower rates than Asian or white students; but Black and Latino CCAP students are doing better than their peers who did not participate in dual enrollment

CCAP			
	Transfer level Math	Transfer level English	Both
Asian	56.0%	68.2%	46.4%
Black	28.2%	47.5%	21.7%
Latino	32.5%	53.8%	26.3%
Native American	41.2%	41.2%	29.4%
Pacific Islander	31.0%	53.4%	27.6%
Two/more races	42.9%	61.5%	35.7%
White	46.7%	67.9%	40.0%

Unknown	38.5%	62.3%	32.3%
Female	38.9%	60.8%	32.5%
Male	37.8%	55.5%	30.8%
First generation	32.6%	54.1%	26.4%
Non-first generation	47.0%	66.3%	40.1%
Other dual enrollment modalities			
	Transfer level Math	Transfer level English	Both
Asian	51.7%	60.1%	39.5%
Black	22.8%	39.8%	16.5%
Latino	29.0%	49.3%	22.6%
Native American	24.3%	48.6%	18.9%
Pacific Islander	29.0%	46.8%	20.7%
Two/more races	38.1%	55.4%	30.2%
White	40.0%	59.9%	32.2%
Unknown	32.6%	52.7%	25.8%
Female	35.6%	55.9%	28.2%
Male	34.6%	50.5%	26.7%
First generation	30.0%	49.6%	23.2%
Non-first generation	42.6%	59.5%	33.9%
Non-dual enrollment			
	Transfer level Math	Transfer level English	Both
Asian	42.6%	53.0%	32.2%
Black	11.5%	27.4%	8.4%
Latino	17.9%	38.2%	14.0%
Native American	13.3%	30.3%	9.7%
Pacific Islander	16.9%	33.5%	13.0%
Two/more races	24.8%	44.3%	19.8%
White	28.0%	49.3%	22.6%
Unknown	29.0%	42.1%	20.8%
Female	23.8%	45.0%	18.9%
Male	22.6%	38.9%	17.2%
First generation	19.0%	38.5%	14.7%
Non-first generation	30.5%	49.8%	24.3%

SOURCE: Authors' calculation using COMIS data,

TABLE 12 (F10)

Within CCAP, Black and Latino students complete the credit milestones at lower rates

CCAP			
	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
Asian	65.7%	51.5%	40.4%
Black	39.5%	25.9%	19.1%

Latino	45.3%	29.7%	23.4%
Native American	50.0%	35.3%	21.4%
Pacific Islander	43.1%	29.3%	14.8%
Two/more races	56.8%	39.6%	26.6%
White	63.6%	47.5%	37.7%
Unknown	51.8%	35.1%	28.5%
Female	53.3%	37.7%	29.5%
Male	49.6%	34.1%	25.5%
First generation	45.8%	30.8%	24.4%
Non-first generation	62.0%	45.5%	36.5%
Other dual enrollment modalities			
	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
Asian	67.1%	52.3%	45.2%
Black	39.6%	24.4%	19.9%
Latino	49.0%	32.7%	27.7%
Native American	42.1%	28.7%	22.7%
Pacific Islander	46.5%	33.6%	26.1%
Two/more races	56.4%	39.6%	32.5%
White	62.9%	45.5%	37.5%
Unknown	52.8%	36.4%	30.0%
Female	57.3%	40.5%	33.8%
Male	52.5%	36.6%	30.8%
First generation	49.2%	33.1%	28.2%
Non-first generation	63.2%	46.3%	38.7%
Non-dual enrollment			
	% completing 30 or more credits within 1.5 years	% completing 45 or more credits within 2 years	% completing 60 or more credits within 3 years
Asian	56.4%	42.2%	40.9%
Black	23.6%	13.3%	12.6%
Latino	32.5%	19.3%	18.7%
Native American	25.5%	14.7%	14.9%
Pacific Islander	28.6%	17.4%	16.1%
Two/more races	38.6%	25.1%	23.7%
White	44.2%	28.9%	26.8%
Unknown	39.8%	27.4%	24.8%
Female	40.3%	26.2%	25.1%
Male	35.2%	22.1%	21.1%
First generation	32.9%	19.9%	19.3%
Non-first generation	45.8%	30.9%	28.9%

SOURCE: Authors' calculation using COMIS data.

TABLE 13 (F11)

Black and Latino students have lower GPA in the 1st year, but CCAP is higher than non-dual enrollees

Average GPA for transfer intending students within 1yr of enrollment			
	CCAP	Other dual enrollment modalities	Non-dual enrollment
Asian	2.99	3.09	2.83
Black	2.28	2.31	1.93
Latino	2.48	2.52	2.12
Native American	2.37	2.45	2.01
Pacific Islander	2.25	2.46	2.12
Two/more races	2.78	2.77	2.40
White	2.94	2.95	2.60
Unknown	2.66	2.76	2.62
Female	2.70	2.78	2.41
Male	2.56	2.63	2.24
First generation	2.48	2.54	2.15
Non-first generation	2.87	2.94	2.58

SOURCE: Authors' calculation using COMIS data.

TABLE 14 (F12)

Black and Latino students have lower completion of credit awards within 1 year

CCAP			
	Within 1yr	Within 2yr	Within 3yr
Asian	7.2%	22.6%	28.6%
Black	3.8%	9.9%	13.6%
Latino	4.7%	13.7%	18.6%
Native American	5.9%	17.6%	20.6%
Pacific Islander	1.7%	10.3%	12.1%
Two/more races	3.0%	17.2%	20.9%
White	6.6%	22.7%	27.8%
Unknown	2.8%	12.5%	16.7%
Female	5.7%	18.5%	23.7%
Male	4.5%	13.8%	18.3%
First generation	4.3%	13.6%	18.6%
Non-first generation	6.2%	21.4%	26.6%
Other dual enrollment modalities			
	Within 1yr	Within 2yr	Within 3yr
Asian	8.0%	21.4%	29.8%
Black	5.4%	11.6%	16.6%
Latino	5.4%	15.2%	22.6%
Native American	3.6%	12.6%	20.2%
Pacific Islander	3.2%	12.4%	18.3%
Two/more races	6.3%	17.2%	24.8%

White	7.8%	21.2%	29.7%
Unknown	5.8%	16.1%	22.3%
Female	7.3%	20.2%	28.5%
Male	5.3%	14.3%	21.2%
First generation	5.0%	14.9%	22.4%
Non-first generation	7.5%	20.9%	29.0%
Non-dual enrollment			
	Within 1yr	Within 2yr	Within 3yr
Asian	2.8%	11.1%	20.1%
Black	1.1%	4.2%	7.8%
Latino	1.5%	6.1%	11.8%
Native American	0.8%	4.1%	9.3%
Pacific Islander	0.9%	4.4%	9.0%
Two/more races	1.6%	7.3%	13.9%
White	2.2%	9.6%	17.0%
Unknown	2.5%	8.9%	14.6%
Female	2.1%	8.9%	16.3%
Male	1.5%	6.0%	11.3%
First generation	1.4%	5.8%	11.7%
Non-first generation	2.2%	9.6%	17.1%

SOURCE: Authors' calculation using COMIS data.

TABLE 15

Females across races achieve higher outcomes than their male peers

Cross race-gender distribution for dual enrollment students						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	54.5%	44.2%	51.4%	47.0%	NA	NA
Black	59.7%	39.3%	58.1%	40.2%	NA	NA
Latino	59.1%	39.9%	57.2%	41.6%	NA	NA
Two or more	57.0%	41.4%	54.4%	43.4%	NA	NA
White	51.8%	46.6%	52.9%	45.0%	NA	NA
Cross race-gender distribution for student enrollments in CC						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	54.5%	44.4%	53.5%	45.7%	47.6%	51.3%
Black	59.6%	39.5%	58.7%	40.3%	46.6%	52.2%
Latino	61.1%	37.9%	59.1%	40.0%	51.8%	47.1%
Two or more	57.0%	41.7%	56.1%	42.4%	49.0%	49.3%
White	52.4%	46.3%	54.3%	44.2%	47.9%	50.5%

Transfer/degree intending students by cross race-gender						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	55.7%	58.7%	44.8%	49.5%	56.8%	63.8%
Black	64.3%	65.7%	60.5%	62.7%	69.1%	71.7%
Latino	67.4%	68.2%	65.1%	65.4%	69.0%	68.4%
Two or more	65.1%	59.8%	58.0%	58.4%	63.9%	66.8%
White	63.8%	65.0%	58.9%	58.8%	61.6%	63.0%

Transfer/degree intending students with credit awards within 1yr by cross race-gender						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	4.8%	3.3%	4.3%	3.1%	2.1%	1.3%
Black	2.8%	2.0%	3.9%	2.5%	0.8%	0.7%
Latino	3.3%	3.0%	4.0%	2.8%	1.2%	0.9%
Two or more	2.2%	1.5%	4.4%	2.7%	1.2%	0.9%
White	5.0%	3.5%	5.2%	3.9%	1.6%	1.3%

Transfer/degree intending students that complete TL Math and English within 1yr of enrollment by cross gender-race						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	27.3%	25.6%	18.1%	19.1%	19.6%	19.4%
Black	14.7%	13.3%	10.7%	9.4%	6.5%	5.4%
Latino	18.2%	17.3%	15.5%	13.7%	10.4%	8.8%
Two or more	25.2%	18.6%	17.7%	17.5%	13.2%	12.7%
White	26.9%	24.5%	19.4%	18.5%	14.6%	13.7%

Transfer/degree intending students that complete 30 credits within 1.5yr of enrollment by cross gender-race						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	37.2%	38.0%	30.8%	32.4%	34.0%	34.2%
Black	26.5%	24.1%	25.5%	22.7%	17.2%	16.1%
Latino	32.0%	28.5%	33.8%	29.4%	24.5%	19.9%
Two or more	37.6%	33.5%	33.5%	31.9%	26.2%	24.5%
White	42.3%	39.5%	38.4%	35.5%	29.0%	26.2%

Average GPA for transfer intending students within 1yr of enrollment by first cross race-gender (transferable courses)						
Race	CCAP		Other dual enrollment modalities		Non-dual enrollment	
	Female	Male	Female	Male	Female	Male
Asian	3.10	2.86	3.18	2.99	2.98	2.70
Black	2.29	2.25	2.39	2.19	1.95	1.92
Latino	2.55	2.37	2.58	2.42	2.21	2.03
Two or more	2.85	2.69	2.86	2.66	2.07	1.94
White	3.03	2.84	3.03	2.85	2.11	2.14

SOURCE: Authors' calculation using COMIS data.

NOTE: Gray cells indicate that the difference between female and male students is not statistically significant.



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research.

Public Policy Institute of California
500 Washington Street, Suite 600
San Francisco, CA 94111
T: 415.291.4400
F: 415.291.4401
PPIC.ORG

PPIC Sacramento Center
Senator Office Building
1121 L Street, Suite 801
Sacramento, CA 95814
T: 916.440.1120
F: 916.440.1121