

READY, SET, LAUNCH

Baseline Academic Outcomes
for Students Participating
in *Dual Enrollment for
Equitable Completion*
Partnerships Compared
to Their Peers, 2015–2020

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Executive Summary



RDP Consulting¹, *Dual Enrollment for Equitable Completion's (DE4EC)* learning partner, examined the academic outcomes of students participating in dual enrollment programs offered by the initiative's 10 community colleges and their partner high schools in the period before its launch. RDP Consulting conducted this research to establish a baseline for identifying the impact of *DE4EC* over time.

Initial analyses reveal encouraging findings about the educational engagement and momentum of students who participate in equity-centered dual enrollment programming. Find below top results from our first detailed quantitative analyses comparing dual enrolled participants' high school and postsecondary outcomes to their non-dual-enrolled peers in recent years and notable highlights for priority student groups (i.e., first-generation, Black/African American, and Hispanic/Latina/o/x students).²

High School Success Outcomes

An examination of secondary outcomes for students participating in these partnerships in the period leading up to the initiative (2015–2016 – 2019–2020) found:

Dual enrollment participants graduated from high school at much higher rates than students who did not take part. Generally, dual enrolled students experienced graduation rates 20+ percentage points higher than their peers who did not participate, even in the face of COVID-19 pandemic impacts.

Dual enrolled students had consistently higher high school grade point averages (GPAs) than their peers who did not participate. Moreover, their GPAs rose steadily over time compared to their non-dual-enrolled counterparts whose GPAs remained flat during the same period (2015–2016 – 2019–2020).

The average number of college units dual enrollment participants completed by high school graduation grew in recent years. The 2015–2016 graduating class earned an average of 6.61 college units compared to the 7.62 completed by those graduating in 2018–2019. The average dropped to 6.96 in 2019–2020, likely due to COVID-19 pandemic impacts during the spring 2020 term.

At the same time, first-generation students tended to have fewer college units earned by high school graduation compared to their peers whose families have postsecondary education experience. Hispanic/Latina/o/x students show a

similar trend, although the gap between them and their White and Asian peers has steadily narrowed over time.

Half of the colleges involved in *DE4EC* saw dual enrollment participants complete degrees and certificates by high school graduation. Many of the colleges that did not have dual enrolled students attaining college credentials were newer to this programming during the period studied.

Notably, significant numbers of first-generation students were able to complete college credentials before high school graduation through their dual enrollment experience.

College Enrollment and Success Outcomes

An examination of postsecondary outcomes for students who experienced dual enrollment through a *DE4EC* partnership in period studied also found:

The number of dual enrollment participants who matriculate to college within a year of high school graduation is on the rise—even while college enrollment overall is trending downward. At the same time that postsecondary enrollment declined for those who did not take part in dual enrollment, high school students who took college coursework through a *DE4EC* partnership matriculated to higher education in greater numbers over time. Across the partnerships, first-generation students who participated in dual enrollment overwhelmingly matriculated to the California Community Colleges (CCC) and California State University (CSU) systems.

¹ www.r-d-p-consulting.com

² The analyses presented in this initial report are descriptive in nature, and due to data limitations, we are not able to determine whether dual enrollment caused differences in outcomes. In future research, we will attempt to address selection bias by incorporating high school GPAs prior to dual enrollment experience.

Even as participant diversity increased, students who previously participated in dual enrollment succeeded in their first-year courses at significantly higher rates than other first-time freshmen who did not take part. When comparing first-year course success rates at partnership colleges, students who experienced dual enrollment consistently outperformed their counterparts by about 20 percentage points.

Positively, first-generation students who previously experienced dual enrollment performed remarkably better than their first-generation peers who did not; similarly, **Black/African American and Hispanic/Latina/o/x students who took part in dual enrollment generally outperformed their freshman peers who did not participate in dual enrollment by 20 to 30 percentage points.**

Students who experienced dual enrollment also had higher rates of retention in their first year of college compared to other first-time students who enrolled in a CCC after graduating from a *DE4EC* partnership high school without participating.

In terms of one-term retention, students who graduated high school in spring 2016 and had previously participated in dual enrollment achieved retention rates comparable to those other first-time freshmen who did not experience dual enrollment.

However, the gap between the two groups widened over time. One-term retention held steady for former dual enrollment participants but decreased among those who did not have this experience. One-year retention followed a similar trend.

The COVID-19 pandemic appears to have had a greater impact on students who did not participate in dual enrollment when it comes to retention, with one-term and one-year retention rates dropping for students who graduated high school in spring 2019 and matriculated in the next year. For example, one-term retention remained steady at 81% for those with prior dual enrollment experience and dropped to 73% for other first-time freshmen during that period. This finding suggests that having dual enrollment experience may have helped students stay on course with their higher education goals in the face of unprecedented disruptions.

Notably, first-generation, Black/African American, and Hispanic/Latina/o/x students with prior dual enrollment experience *did* maintain strong rates of retention through the pandemic. These findings reveal an area for further exploration of how dual enrollment has contributed to positive college-going behaviors for students historically underrepresented in higher education and whose communities have been disproportionately impacted by COVID-19.



Conclusion

The positive secondary and postsecondary outcomes for dual enrolled students before *DE4EC*'s launch—particularly for first-generation, Black/African American, and Hispanic/Latina/o/x students—suggest these partnerships have a strong foundation on which to further develop equitable dual enrollment programs. Students involved in these dual enrollment partnerships experienced higher success among several indicators, such as high school GPA and graduation, college-going, and success and retention in the first year of college. All these outcomes are important to our ultimate goals for students: credential and degree completion, transfer, and workplace success.

In the coming months, we will explore the status of these indicators for dual and non-dual-enrolled students during the initiative's first academic year: fall 2022 through spring 2023. A second report is planned for 2024 and will summarize secondary and postsecondary outcomes for dual and non-dual-enrolled students during this period.

We will also identify students' academic standing when they enter dual enrollment to determine if students who have not historically performed at a high level are accessing and succeeding in these experiences (or if high performers primarily tap these opportunities). Strong academic outcomes and engagement for dual enrollment students during the COVID-19 pandemic offer another area of investigation. We will further monitor how participation and performance among different student groups continues to be impacted by this unprecedented disruption in our conversations with students, administrators, counselors, and instructors.

Given the encouraging baseline established through this initial analysis, we anticipate continued growth in the number of historically underrepresented students who have access to college courses in high school; maintain higher GPAs; graduate high school; and enter, persist, and complete college/university.

Introduction



Dual enrollment is gaining steam in California as a strategy for ensuring more high school students make the transition to college and that they arrive prepared and on path to completion of postsecondary credentials. Dual enrollment programs enroll high school students in college coursework for credit. While historically positioned as a way for high achieving students to get a jumpstart on higher education, a shift is taking place in the state toward a more inclusive and equity-centered approach.

Educational leaders and equity champions are advocating for dual enrollment programs to expand their reach and offer intentional opportunities for students who may need additional support, providing them early access to college experiences that increase their educational and career preparation and position them for long-term economic mobility. State legislation—including the College and Career Access Pathway Partnership (AB 288, 2015; AB 30, 2019)—along with collaborative efforts like the *Dual Enrollment for Equitable Completion (DE4EC)* initiative are advancing this movement.

DE4EC supports 10 California community colleges and their high school partners in developing dual enrollment programs that foster equitable access and completion outcomes for students underrepresented in higher education (see Sidebar 1.1). **To establish a baseline for analyzing the initiative's impact, RDP Consulting³—*DE4EC*'s learning partner—examined academic outcomes for dual enrollment program participants in the period before its launch.** This technical report details those results. This report is the first of its kind for the initiative, and RDP Consulting will continue to produce quantitative analysis on the impact of dual enrollment participation on students' outcomes as the project evolves.⁴

Sidebar 1.1 *Dual Enrollment for Equitable Completion* Overview

Dual Enrollment for Equitable Completion (DE4EC) is a multi-year collaborative initiative among the [Bill & Melinda Gates Foundation](#), [College Futures Foundation](#), and [Tipping Point Community](#), carried out with research support from RDP Consulting. *DE4EC* supports 10 California community colleges and their high school partners in advancing equitable dual enrollment. These partnerships are building programs designed to increase access and completion outcomes for students underrepresented in higher education, particularly African American/Black and Latina/o/x students and those experiencing economic disadvantage.

Launched in 2021, *DE4EC* supports 10 California community colleges and their high school partners: Berkeley City, Compton, Contra Costa, Cuyamaca, East Los Angeles College (ELAC), Fresno City, Gavilan, Hartnell, Madera, and Skyline. While each of these collaborations represents different levels of capacity and stages of dual enrollment program implementation, they were selected based on a common commitment to recruit and serve student groups historically underrepresented in or excluded from dual enrollment opportunities.

RDP Consulting is conducting research to support learning throughout the life of the *DE4EC* initiative, exploring what constitutes equitable dual enrollment and how it benefits students. We provide analysis to quantify the impact of dual enrollment participation. And we connect directly with educators, students, parents, and other partners alike to lift up their insights on how to center equity in the design and delivery of dual enrollment opportunities for improved impact.

Readers' Guide

We begin with a review of our research methodology, then move to a detailed quantitative analysis comparing dual enrollment participants' outcomes to their non-dual-enrolled peers in the years leading up to the start of the initiative (2015–2016–2019–2022). To set the context, we offer a snapshot of the dual enrollment program landscape at participating colleges, including the number and types of courses offered in the period before *DE4EC*.

Then, we show how participation in this programming impacted students' high school outcomes, followed by an assessment of their course success and retention once enrolled in college. When appropriate, we offer additional insight into specific metrics for

students by first-generation status as well as their racial/ethnic and gender identities to tease apart how different groups are faring through these experiences.

We conclude with major implications from this report and a summary of the next steps. We are encouraged by the promising results from this first quantitative analysis. We expect they will help *DE4EC*, its partner colleges and high schools, and others working to increase higher education access and success for historically underrepresented groups further advocate for dual enrollment as an essential strategy for increasing equitable outcomes and closing opportunity gaps.

³ <https://www.r-d-p-consulting.com/>

⁴ This research complements findings from our March 2023 report [Advancing Equitable Dual Enrollment: Initial Findings from the Dual Enrollment for Equitable Completion Initiative](#), which explored how partnerships purposefully included historically marginalized students in dual enrollment opportunities based on extensive interviews and focus groups with administrators, faculty, students, and parents involved in *DE4EC* partnership programs. Learn more at <https://www.r-d-p-consulting.com/de4ec>.

Data and Methods



To examine the status of *DE4EC* programs before the initiative's launch, our specific research question for this quantitative analysis was:

At baseline, how did the secondary and postsecondary outcomes of students who participated in dual enrollment compare to those of similar groups of high school and California community college students who did not?

RDP Consulting conducted this analysis using data provided by Educational Results Partnership (ERP) team and the Cal-PASS (Partnership for Achieving Student Success) Plus program.⁵ We examined historical and recent secondary and postsecondary participation and achievement for students who completed college coursework through dual enrollment programming offered by the 10 *DE4EC* partnerships. Then, we compared them to groups of peers who did not participate in dual enrollment. Table 1 provides details on the key variables examined.

At the high school level, we identified:

- College course offerings
- Dual enrollment participation
- Course success rates

- Average high school grade point average (GPA)
- High school graduation rates
- Associate's degree or certificate completion while in high school

At the college level, we examined:

- College enrollment in the first year after high school graduation
- First-year course success rates
- One-term and one-year retention rates

⁵ Along with San Joaquin Delta College and the California Community Colleges, ERP is the data and analytics partner for Cal-PASS Plus, helping to improve student success along the education-to-workforce pipeline. Learn more at <https://www.edresults.org/programs>.

To fully investigate this research question, we disaggregated information by students' first-generation status, race/ethnicity, and gender where relevant. The disaggregation allowed for the exploration of how and whether dual enrollment contributed to increased equitable secondary completion and access to and attainment of postsecondary credits and opportunities for program participants.

Table 1. Data Analysis Schema

Area of Assessment	Definition/Variables	Comparison Groups
Dual Enrollment Program		
Course Offerings	Dual enrollment courses grouped by subject area	Partnership Colleges
Dual Enrollment	<i>DE4EC</i> partner high school students participating in dual enrollment	Dual Enrolled Students
High School Success		
College Units	Average total number of completed units at the time of high school graduation	Dual Enrolled Students
High School Graduation Rates	High school graduation rates for students who entered ninth grade at a <i>DE4EC</i> partnership high school 2013–2014 – 2017–2018	Dual Enrolled Students and Non-Dual-Enrolled Students
High School GPA	Average high school GPA at the time of graduation	Dual Enrolled and Non-Dual-Enrolled Students
Degree/Certificate Completion	Number of students earning degrees and/or certificates at the time of high school graduation	Dual Enrolled Students
College Going	Number of students attending a public in-state postsecondary institution (CCC, UC, CSU), an in-state private college/university, and an out-of-state college/university within one year after high school graduation	Dual Enrolled Students and Non-Dual-Enrolled Students
College Success in First Year		
First-Semester Course Success	Percentage of students receiving a C or higher in courses taken in their first semester after high school graduation	Formerly Dual Enrolled and Non-Dual-Enrolled First-Time Freshmen at Partnership CCC
One-Term Retention	Percentage of students continuing their college enrollment in the term immediately following their initial term	Formerly Dual Enrolled and Non-Dual-Enrolled First-Time Freshmen who graduated from Partnership high schools
One-Year Retention	Percentage of students continuing their college enrollment one year following their initial term	Formerly Dual Enrolled and Non-Dual-Enrolled First-Time Freshmen who graduated from Partnership high schools

This study focused on the partnership colleges involved in *DE4EC* and their partner school districts and high schools, as identified by Cal-PASS Plus. Cal-PASS Plus provided aggregated cross-sectional data of dual enrolled and non-dual-enrolled students for the following academic years: 2015–2016, 2016–2017, 2017–2018, 2018–2019, and 2019–2020.⁶

While the timeframe remains constant throughout the report, the composition of student cohorts may vary based on the metric analyzed. For instance, when analyzing outcomes attained by high school graduation, our sample comprises both dual enrolled and non-dual-enrolled students who graduated from a *DE4EC* high school between 2015–2016 and 2019–2020. However, for the assessment of first year college success, we focus on entering cohorts of community college students with and without dual enrollment experience between 2015–2016 and 2019–2020.

Quantitative findings for this analysis were filtered to these partnerships to measure success exclusive to the *DE4EC* initiative. Note: the data collected for this study included some “swirl,” where high school students attended multiple *DE4EC* colleges while participating in dual enrollment.

See a complete list of *DE4EC* partnerships colleges, school districts, and high schools in Appendix A. We provide detailed findings by partnership college for metrics in this report where relevant and possible. Readers can also find these data in the appendices.

⁶ Note: there is limited information reflective of the success and program development for Madera based on the years included in this study. The institution operated as the Madera Community College Center in partnership with Madera High School between 1986–2020. The California Community Colleges Board of Governors recognized the institution as the state system's 116th campus as of July 2020.

Findings



Dual Enrollment Offerings

As part of this analysis, we wanted to better understand how the landscape for dual enrollment programming evolved in recent years at partner community colleges as they embraced a commitment to recruiting and serving student groups historically underrepresented in or excluded from these opportunities. We looked at both the number and type of courses participating high schools and their students tapped between 2015–2016 and 2019–2020.

The number of distinct courses taken by dual enrolled students increased during this period for most partnership colleges (Table 2). **The increased course-taking across partnership colleges indicates an increased demand for college courses among high school students.** For some colleges (Hartnell, Compton, Cuyamaca), the number of unique courses taken by dual enrolled students more than doubled since fall 2017, despite the advent of the COVID-19 pandemic in spring 2020. Some colleges (Contra Costa, Gavilan) were more heavily impacted by the pandemic, with the number of unique courses taken by dual enrolled students dropping to the single digits. Still others experienced more mixed results (ELAC, Fresno City, Berkeley City, Skyline), with the number of courses fluctuating from term to term and year to year.

Table 2. Number of Unique Courses Taken by Dual Enrollment Students by Partnership College (Fall 2015 – Spring 2020)

Term	Contra Costa	Gavilan	Madera	Berkeley City	Compton	Cuyamaca	ELAC	Fresno City	Hartnell	Skyline	Total
Fall 2015	72	9	n/a	28	6	8	86	72	22	52	355
Spring 2016	112	21	n/a	48	4	21	110	119	32	93	560
Fall 2016	81	99	n/a	34	5	9	98	90	30	50	496
Spring 2017	115	113	n/a	47	5	20	113	135	37	65	650
Fall 2017	79	83	n/a	36	9	20	99	92	25	114	557
Spring 2018	107	117	n/a	52	8	20	115	127	33	128	707
Fall 2019	69	92	n/a	37	10	20	120	79	63	100	590
Spring 2019	89	123	n/a	49	14	32	138	116	98	138	797
Fall 2019	75	1	n/a	38	32	35	114	73	64	67	499
Spring 2020*	101	8	n/a	70	47	56	135	108	87	91	703

*Term impacted by the COVID-19 pandemic

When looking at course offerings by Taxonomy of Programs (TOP) codes⁷ across academic years, courses in social science, education, mathematics, and fine and applied arts were the most commonly offered at partnership colleges (Table 3). For example, in 2015–2016, there were 73 unique social science courses taken by dual enrolled students, which doubled to 147 in 2020. Education courses, which include physical education courses, American Sign Language, and kinesiology, similarly grew from 73 unique courses in 2015–2016 to 100 in the 2020–2021 academic year. Again, this overall expansion in offerings likely reflects an overall increase in student demand for dual enrollment experiences.

Of note, the number of unique mathematics courses peaked in 2019–2020 at 94 courses and dropped to 81 in 2020–2021. This drop was likely most attributable to the implementation of AB 705⁸ beginning in fall 2018 and the subsequent reduction of basic skills course offerings over time. In 2019–2020, there were 15 basic skills courses taken by dual enrolled students across partnership colleges, and this number dropped to six in 2020–2021.

Table 3. Unique Dual Enrollment Courses Offered by Discipline (2015–2016 – 2019–2020)

Discipline	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Agriculture and Natural Resources	2	2	0	10	1
Architecture and Related Technologies	2	0	6	6	9
Biological Sciences	24	24	31	34	36
Business and Management	32	45	51	61	48
Commercial Services	1	1	2	1	1
Education	102	118	122	132	115
Engineering and Industrial Technologies	35	39	47	59	49
Environmental Sciences and Technologies	3	3	3	3	3
Family and Consumer Sciences	33	32	43	30	33
Fine and Applied Arts	135	126	164	170	120
Foreign Language	46	47	58	56	46
Health	28	51	53	54	28
Humanities (Letters)	72	97	101	93	95
Information Technology	16	30	32	40	36
Interdisciplinary Studies	57	53	63	61	66
Law	1	1	4	2	3
Library Science	3	3	3	3	2
Mathematics	77	83	99	91	86
Media and Communications	30	34	33	40	42
Military Studies	0	1	0	0	0
Physical Sciences	31	35	41	41	37
Psychology	22	30	31	29	34
Public and Protective Services	23	30	35	41	43
Social Sciences	114	127	147	148	150
Total	889	1,012	1,169	1,205	1,083

⁷ Developed by the California Community Colleges Chancellor's Office, the Taxonomy of Programs (TOP) is "a system of numerical codes to be used at the state level to collect and report information on programs and courses, in different colleges throughout the state, that have similar outcomes." Find more information at <https://www.cccco.edu/>.

⁸ Passed in 2017 and implemented beginning fall 2018, Assembly Bill 705 (AB 705) prohibited California community colleges or districts from using an assessment test to determine access to gateway English and math coursework. In place of assessment tests, colleges must now use multiple measures for placement—including overall high school GPA, course work completed, course grades—to maximize students' completion of transfer-level English and math courses within one year (and three years for those placed into the English as a Second Language sequence). Find more information at https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=20170180AB705.

High School Success Outcomes

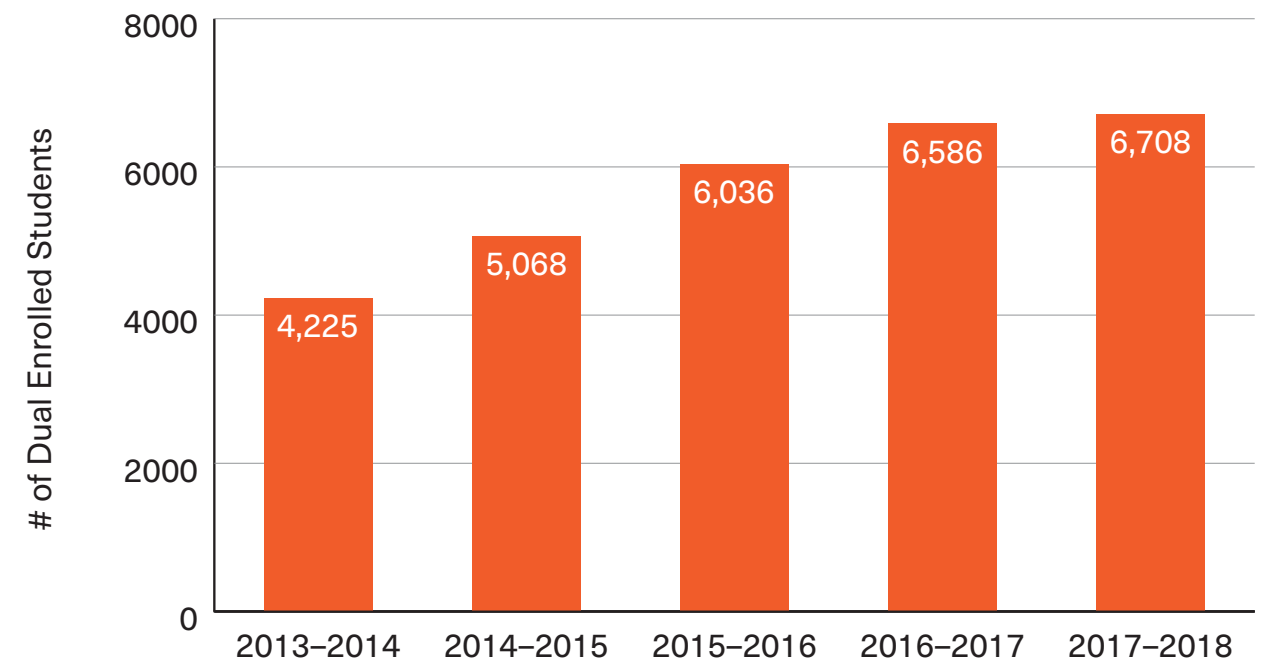
With this foundational understanding of the dual enrollment offerings at *DE4EC* partnership colleges in place, we then assessed how students who participated in this programming compared to their non-dual-enrolled peers in terms of metrics such as high school graduation rates, high school GPA, and completion of college units and credentials by high school graduation. We also looked at these outcomes by student characteristics to explore how dual enrollment participation among historically underrepresented groups may contribute to increased preparation for postsecondary education and early momentum toward college completion.

Dual Enrollment Participation

To understand trends for the period leading up to the initiative's launch, we looked at dual enrollment participation for students who entered ninth grade at a *DE4EC* partner high school 2013–2014 through 2017–2018.

Figure 1 shows that the number of students participating in dual enrollment⁹ during their time at a *DE4EC* partner high school steadily increased. Involvement rose by 59% (2,483 students) for the cohorts entering ninth grade between 2013–2014 and 2017–2018. The first two years saw the largest gains, growing by approximately 20% for the 2014–2015 and 2015–2016 cohorts, followed by a 9% growth for the 2016–2017 cohort. It is worth noting that California passed the California College and Career Access Pathways Act (AB 288) in 2015—legislation designed to expand access for high school students who might not be college bound and/or who have been historically underrepresented in postsecondary education to dual enrollment. The smaller 2% growth seen for the 2017–2018 cohort is most likely due to their senior year falling during spring 2020, which was impacted by the COVID-19 pandemic.

Figure 1. Number of Partner High School Students Participating in Dual Enrollment (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018)



⁹ Students were considered dual enrolled if they took at least one course at a partnership college while enrolled in a partner high school. Conversely, non-dual-enrolled students are those attending the same partner high schools but did not take any college courses during that time.

In addition, the proportion of entering ninth grade student cohorts who ultimately participated in dual enrollment also increased during the same time, from 6% of the 2013–2014 cohort to 12% of the 2016–2017 cohort (Figure 2). The proportion decreased slightly to 11% of the 2017–2018 cohort, which is again most likely associated with the COVID-19 pandemic impacting students' participation.

Figure 2. Proportion of Partner High School Students Participating in Dual Enrollment (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018)

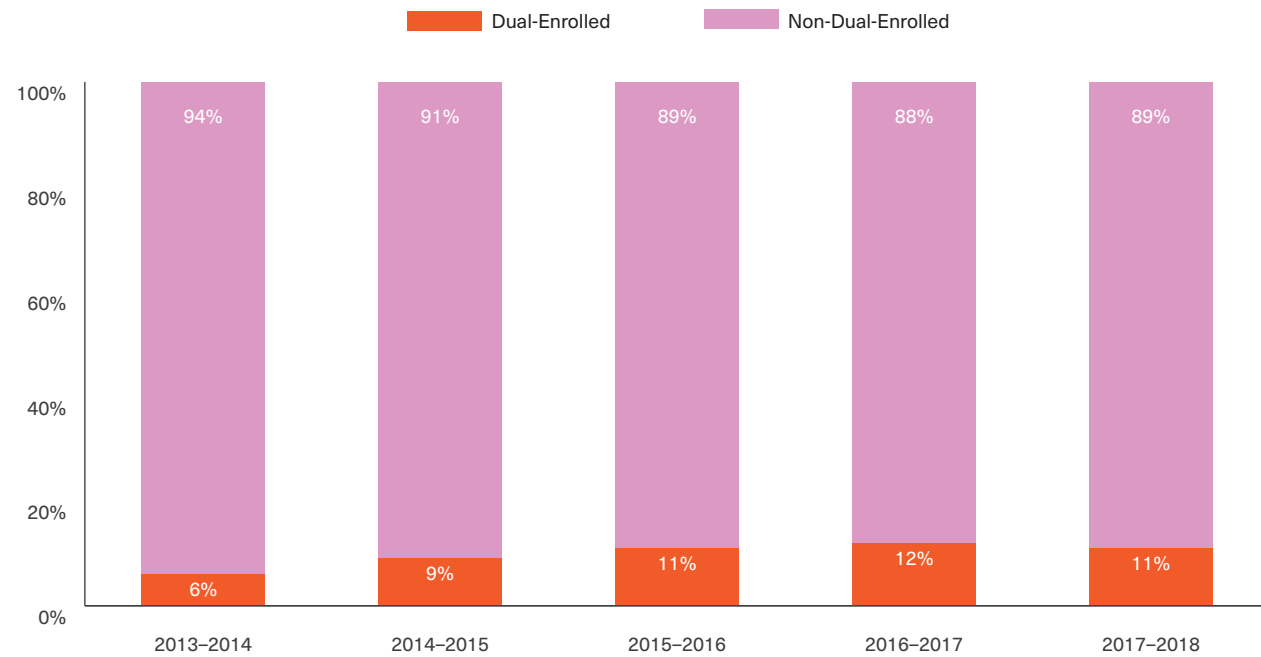


Figure 3 shows that dual enrollment participation among first-generation students rose by 542 students between the 2013–2014 and 2017–2018 cohorts, an increase of 56%; comparatively, their non-first-generation peers increased their involvement in dual enrollment by 60% (1,941 students). Despite their slight lag in participation, **this small difference is an encouraging indicator that more students who were the first in their families to attend college were participating in dual enrollment.**

Figure 3. Number of Partner High School Students Participating in Dual Enrollment by First-Generation Status (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018)

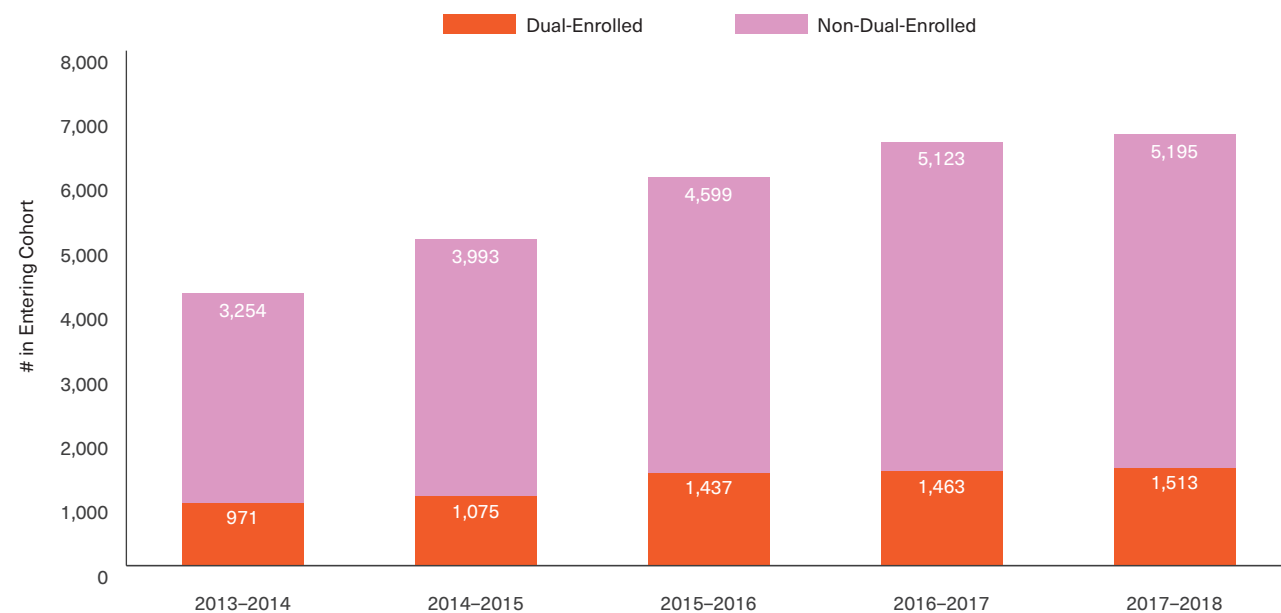
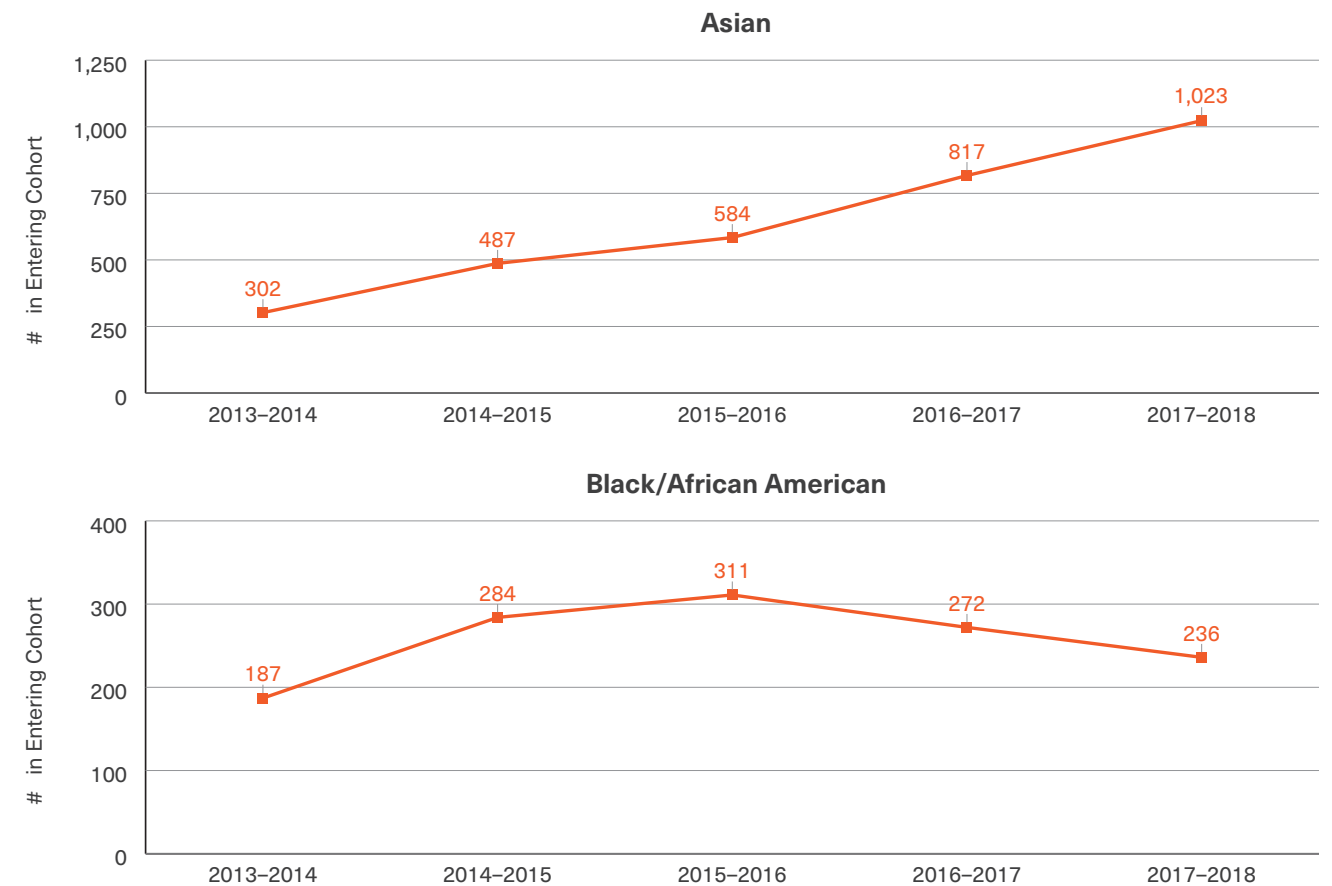


Figure 4 shows that when looking at dual enrollment involvement by race/ethnicity, Asian student participation at DE4EC partner high schools jumped by 239% between the 2013–2014 and 2017–2018 cohorts (721 students)—the largest gain of all groups. White student participation followed with a 113% increase (358 students). Native Hawaiian and Other Pacific Islander students and students identifying as two or more races also saw general increases of 79% and 87%, respectively.

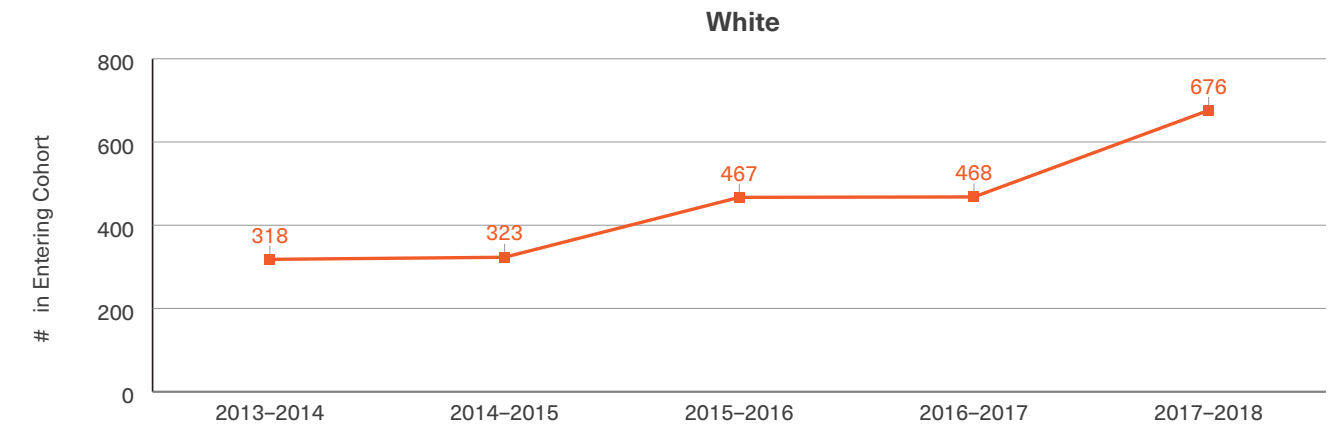
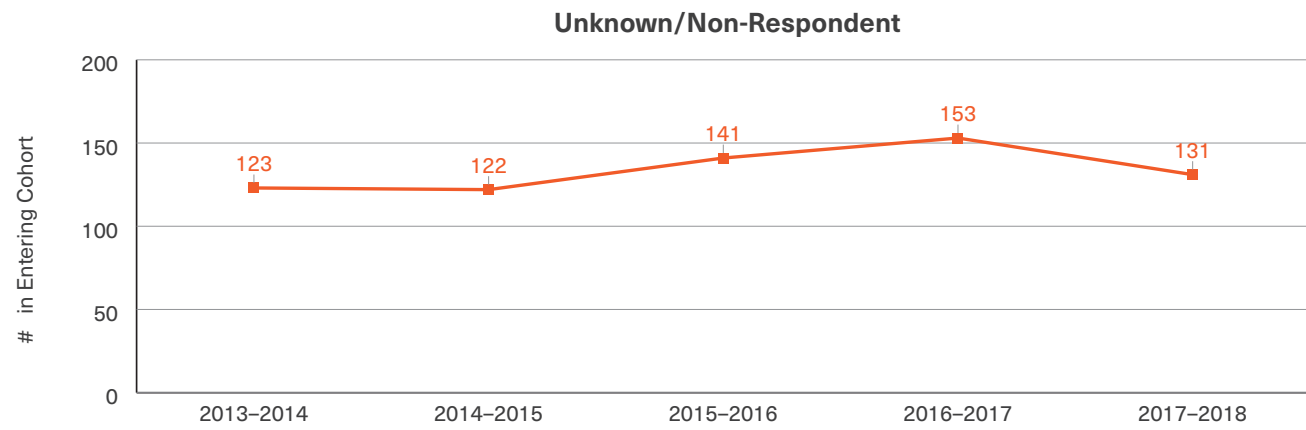
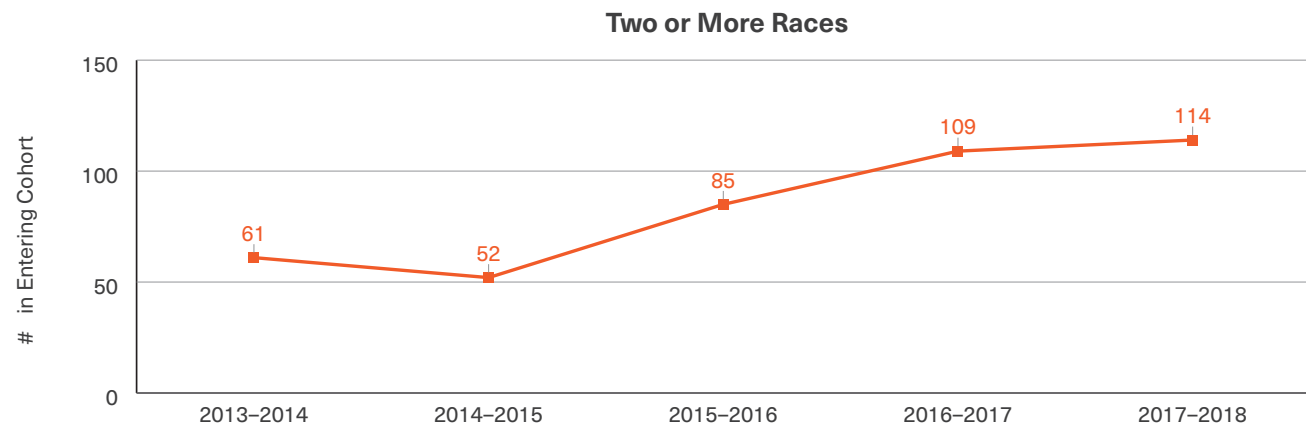
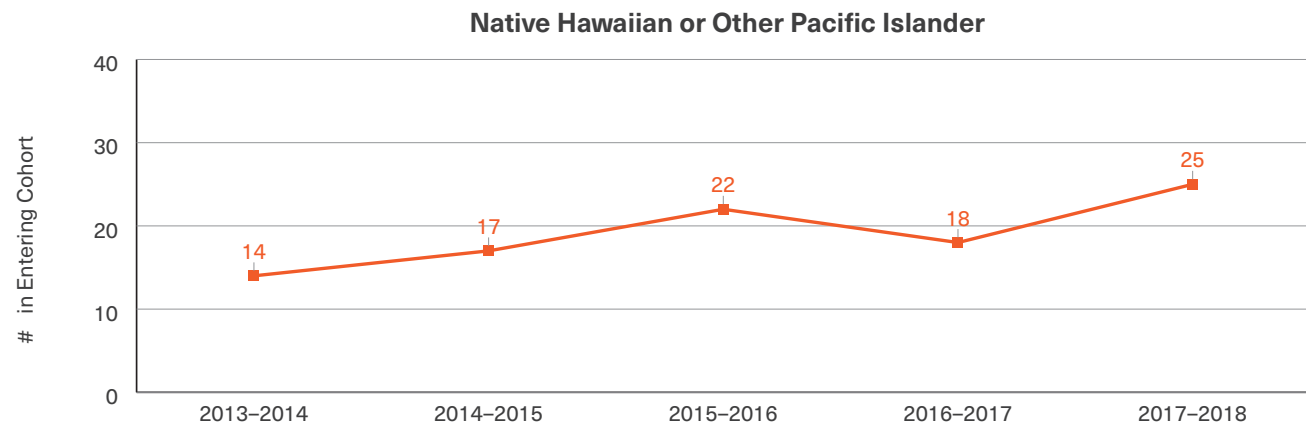
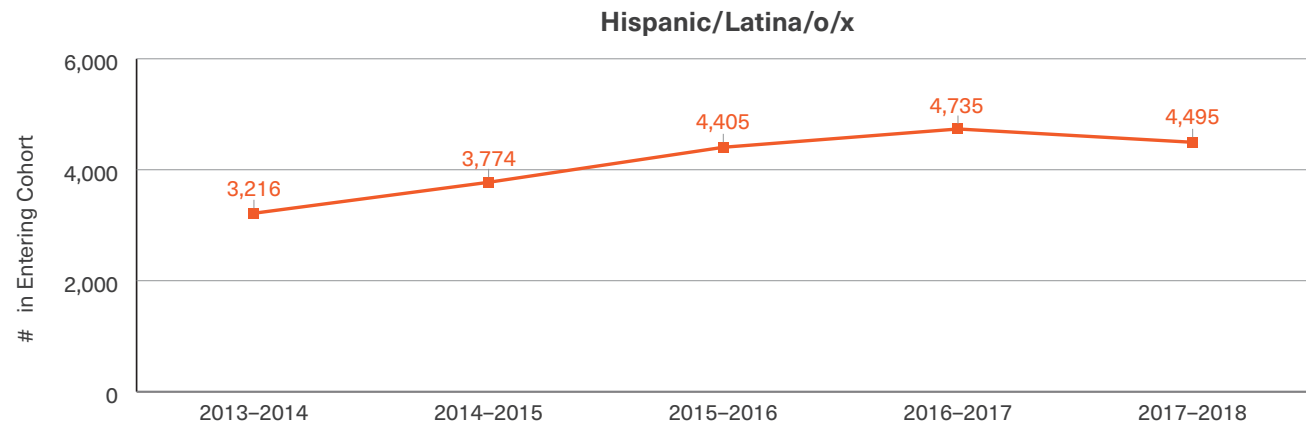
While Hispanic/Latina/o/x students only increased by 40% over the same period, the numbers steadily increased between the 2013–2014 and 2016–2017 cohorts, dropping slightly for the 2017–2018 cohort, most likely due to the COVID-19 pandemic. The trend among Black/African American students is a bit more concerning because after peaking with the 2015–2016 cohort at 311 students, the number dropped among both the 2016–2017 and 2017–2018 cohorts to 272 and 236, respectively. These data indicate an area of opportunity for DE4EC partnerships to specifically focus on outreach to Black/African American and Hispanic/Latina/o/x students and their families in culturally responsive ways. See [Brief 1: Strategies for Equitable Dual Enrollment Participation](#)¹⁰ in our *Advancing Equitable Dual Enrollment Research Series* for more information on practices DE4EC partners are already utilizing to increase participation among historically underrepresented groups.

Figure 4. Number of Partner High School Students Participating in Dual Enrollment by Race/Ethnicity (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018¹¹)



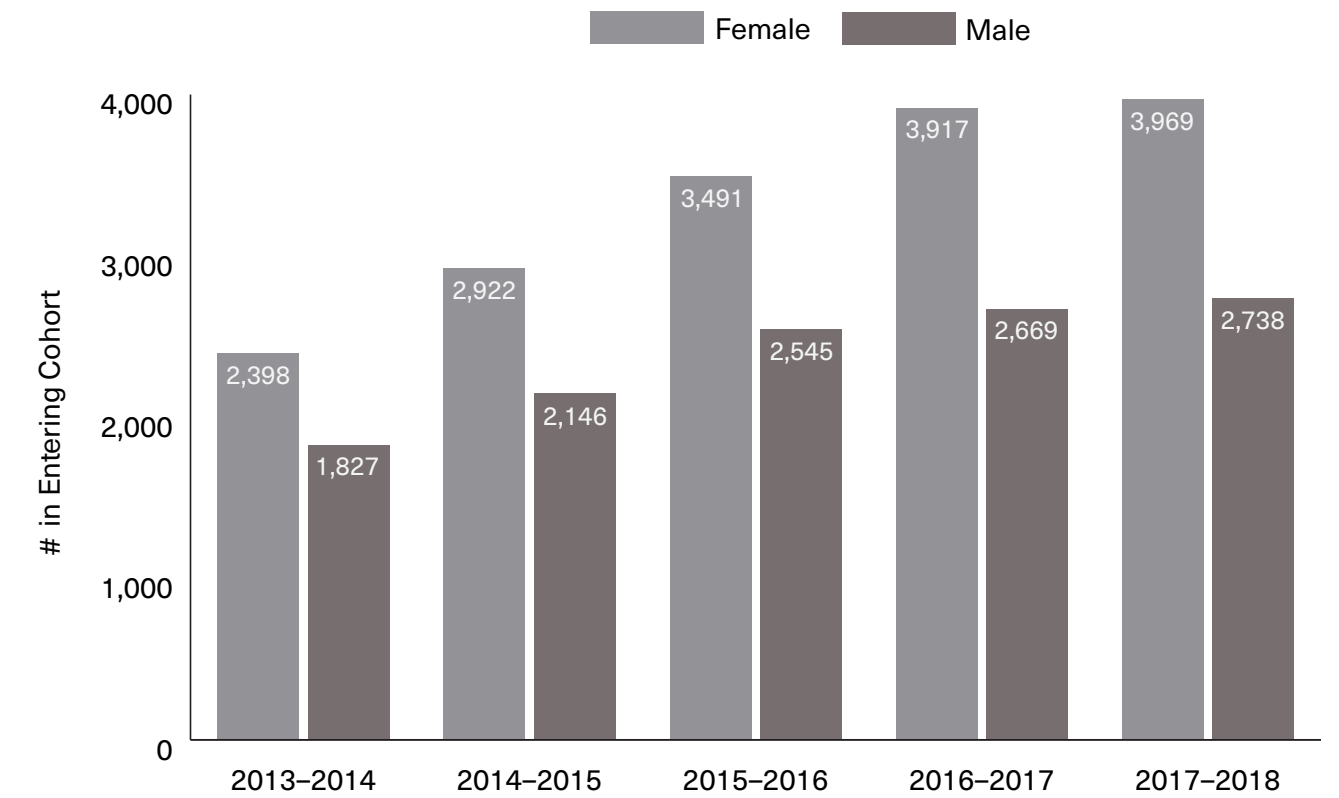
¹⁰ https://www.r-d-p-consulting.com/files/ugd/348955_183557fc1cbe484f902ffe20935e878e.pdf

¹¹ American Indian or Alaskan Native students were excluded from this analysis because in most years there were fewer than 10 students.



When we examine dual enrollment participation by gender, the number of female students increased by 1,571 between the 2013-2014 and 2017-2018 cohorts, representing a 66% jump in involvement; comparatively, male student participation grew by 50% (911 students). Additionally, female students made up the majority of dual enrollment participants, increasing from 57% of the 2013-2014 cohort to 59% of the 2017-2018 cohort (Figure 5).

Figure 5. Number of Partner High School Students Participating in Dual Enrollment by Gender (Entering 9th Grade Cohorts, 2013-2014 – 2017-2018)

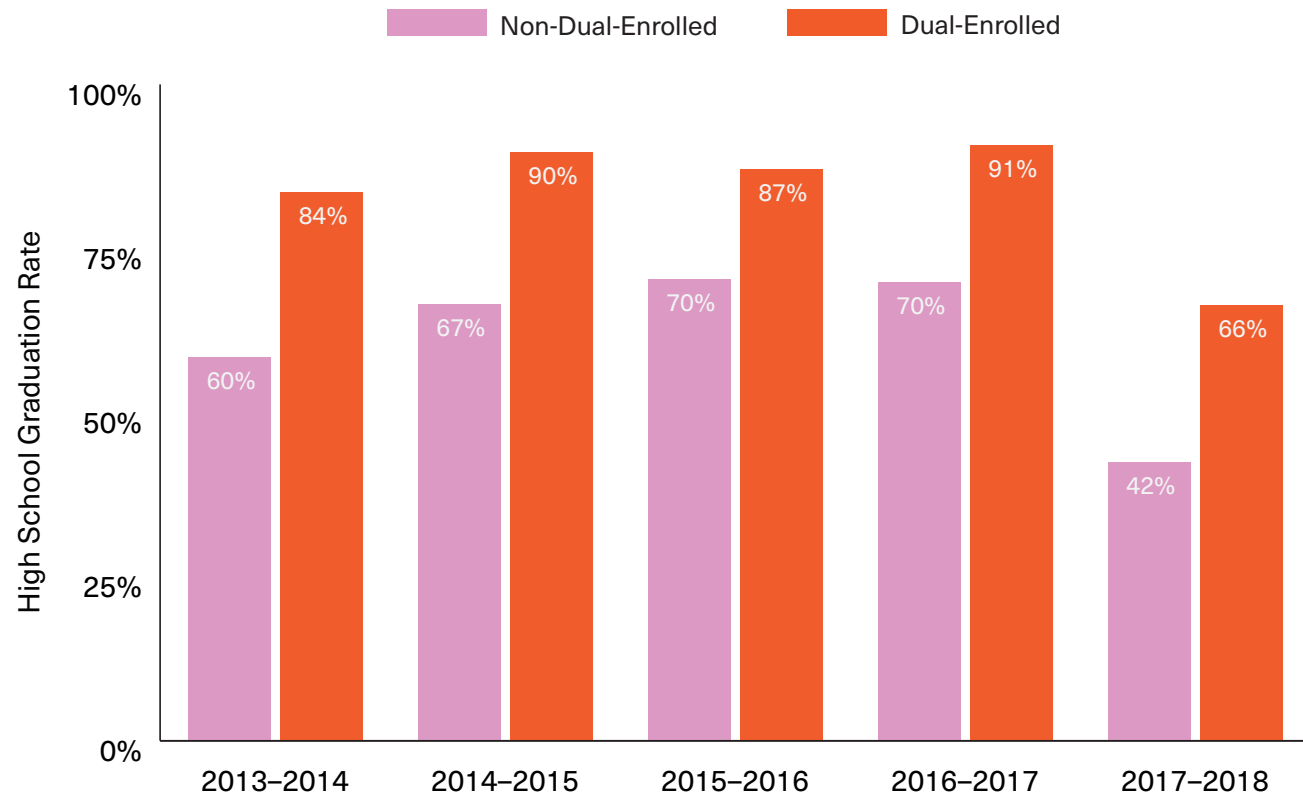


High School Graduation

We then looked at high school graduation rates for students who entered ninth grade at a *DE4EC* partner high school 2013–2014 through 2017–2018 and who participated in dual enrollment (compared to their counterparts who did not).

Overall, students who took at least one dual enrollment course graduated high school at significantly higher rates (Figure 6). The graduation rate for students involved in dual enrollment was 20 percentage points higher than that of their peers who did not participate. Again, the dip in graduation rates for the 2017–2018 entering cohort, who were poised to graduate in 2020–2021, is likely due to the impact of the COVID-19 pandemic. At the same time, even with this decrease, dual enrollment participants continued to graduate at higher rates than their counterparts who were not involved.

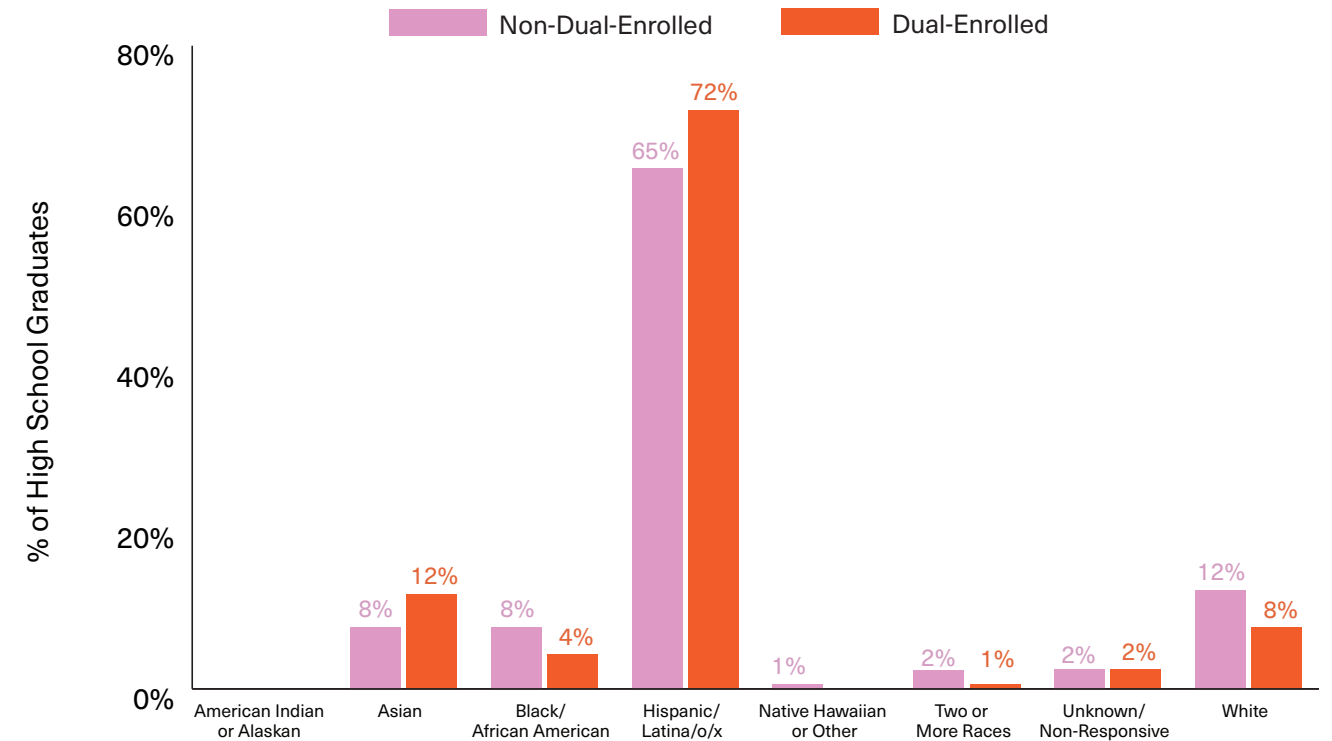
Figure 6. High School Graduation Rates by Dual Enrollment Participation (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018)



Again, we looked at the demographic composition of high school graduates from *DE4EC* partner high schools who participated in dual enrollment (compared to those who did not participate). This time, we looked at all students combined who entered as part of the ninth grade cohorts, 2013–2014 through 2017–2018, and subsequently graduated high school within four years. Although not presented here, first-generation graduates were equally as likely to have participated in dual enrollment as their non-first-generation peers.

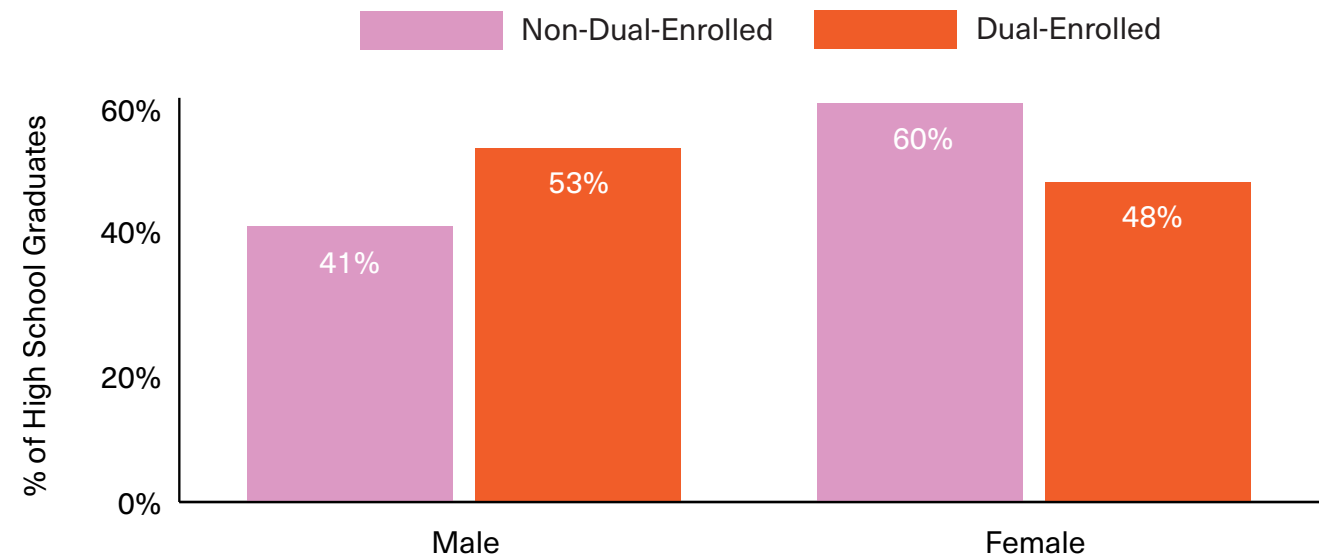
In terms of race/ethnicity, Asian and Hispanic/Latina/o/x graduates were more likely to have participated in dual enrollment, whereas Black/African American and White graduates were less likely to have participated (Figure 7).

Figure 7. High School Graduates by Dual Enrollment Participation and Race/Ethnicity (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018 Combined)



Among all high school graduates, **female students made up a greater proportion of dual enrolled graduates (59%)**, whereas male students represented a slight majority among non-dual-enrolled graduates (53%) (Figure 8). In other words, female graduates were more likely to have participated in dual enrollment than male graduates who were less likely to have participated in dual enrollment.

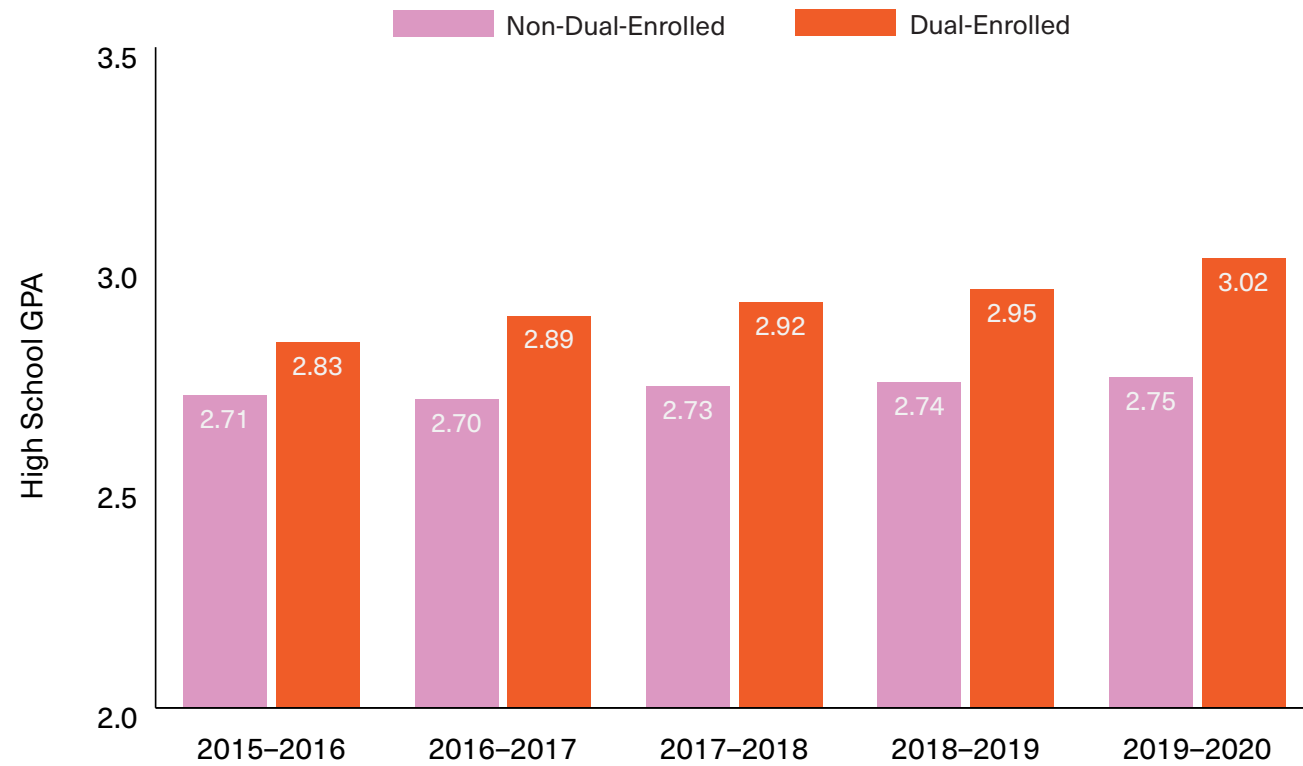
Figure 8. High School Graduates by Dual Enrollment Participation and Gender (Entering 9th Grade Cohorts, 2013–2014 – 2017–2018 Combined)



High School GPA

We then looked at the average GPA for cohorts graduating from *DE4EC* partnership high schools 2015–2016 through 2019–2020 by dual enrollment participation. Figure 9 shows that **overall, dual enrolled students consistently had higher GPAs than their non-dual-enrolled peers at the time of high school graduation.** In addition, dual enrolled students' average GPA steadily increased over the five years examined compared to those who did not participate, which remained relatively flat for that period. The average GPA among dual enrolled students increased by 0.19 points (from 2.83 to 3.02) compared to the minimal gain of 0.04 points seen among non-dual-enrolled students (from 2.71 to 2.75). These findings signal an area for future analysis to further understand the interaction between students' prior academic performance and their participation in *DE4EC* dual enrollment programs.

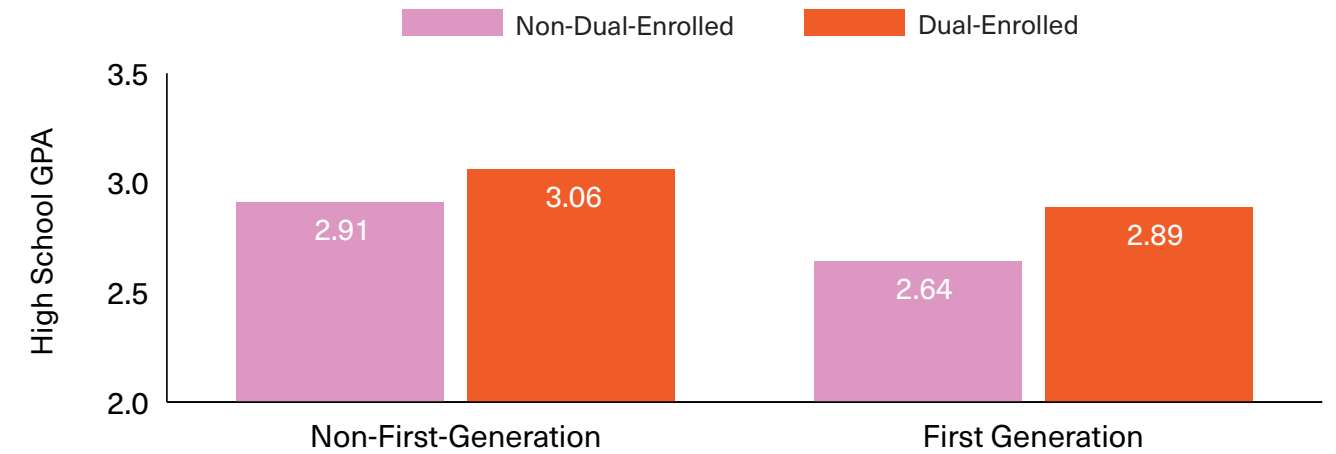
Figure 9. Average High School GPA upon High School Graduation by Dual Enrollment Participation (Graduating Cohorts, 2015–2016 – 2019–2020¹²)



We also looked at the average high school GPA of dual enrollment students by demographic (compared to those who did not participate). Again, we looked at this metric for all students who were part of the graduating cohorts 2015–2016 through 2019–2020 combined.

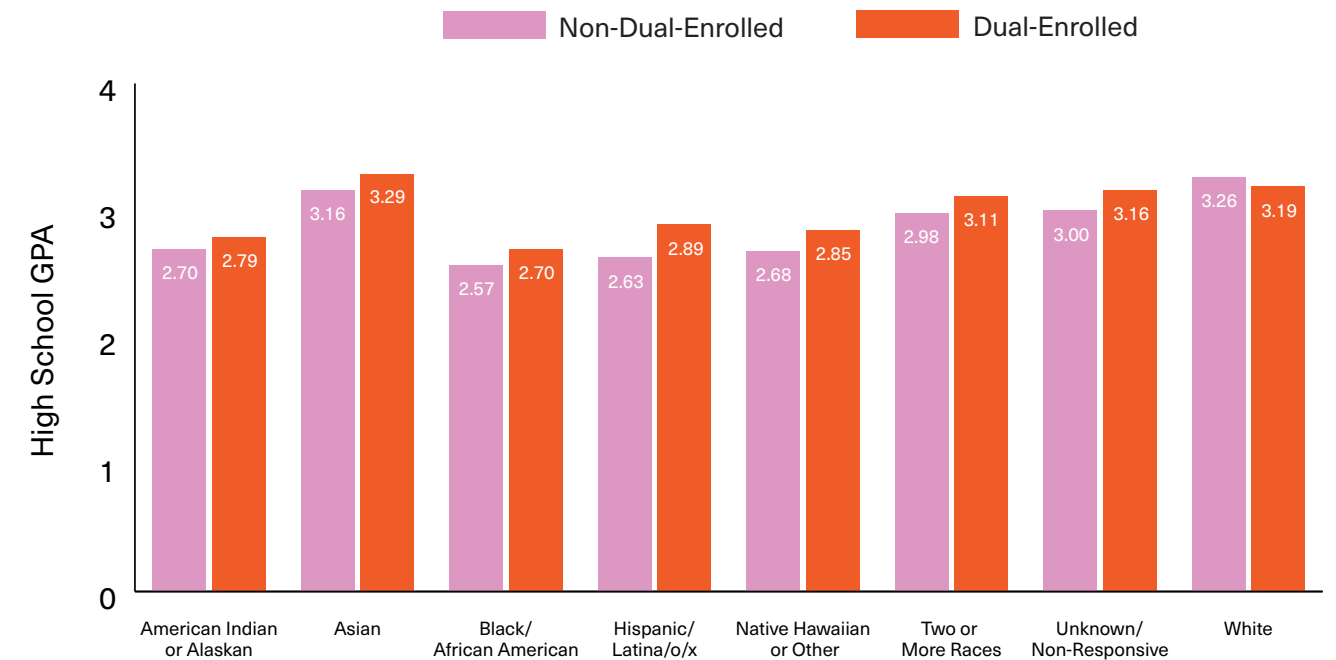
Overall, first-generation students did not earn a GPA as high as their non-first-generation peers; however, **first-generation students who participated in dual enrollment earned higher GPAs than their non-dual-enrolled counterparts** (Figure 10). Dual enrollment may be benefiting first-generation students because the increase in their high school GPA (0.25 points) is greater than the difference seen among non-first-generation students who do and do not participate in dual enrollment (0.15 points). However, we are unable to confirm through statistical analysis due to the aggregated form in which we received the data.

Figure 10. Average High School GPA upon High School Graduation by Dual Enrollment Participation and First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



For every race/ethnicity, dual enrolled students achieved higher GPAs than their non-dual-enrolled peers, with the largest difference seen among Hispanic/Latina/o/x students (0.26 points) (Figure 11). The one exception is among White students, where non-dual-enrolled students' GPAs were slightly higher than their dual enrolled counterparts (3.26 and 3.19, respectively). However, it is important to note that both GPAs are among the highest compared to other racial/ethnic groups.

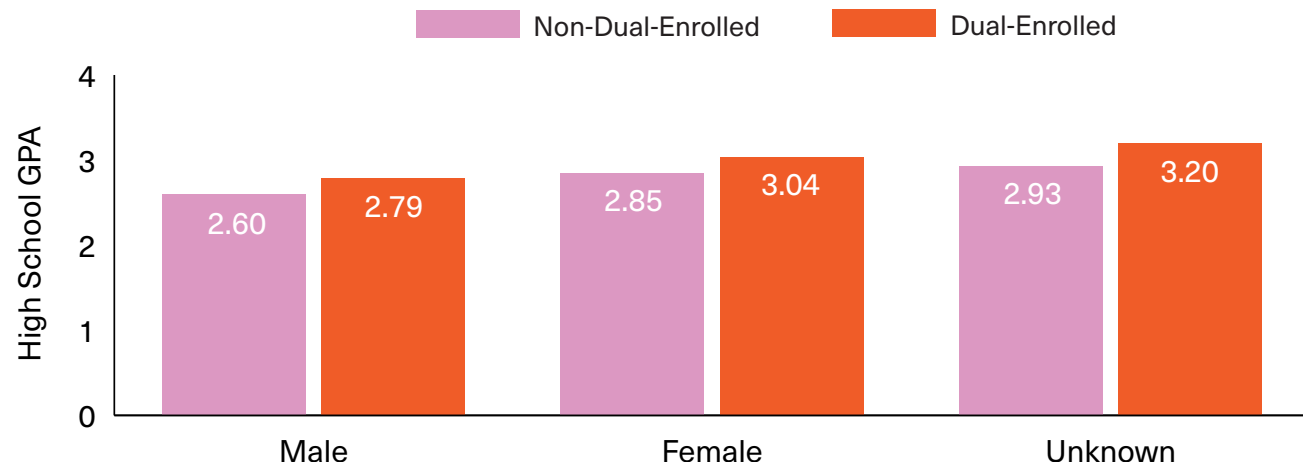
Figure 11. Average High School GPA upon High School Graduation by Dual Enrollment Participation and Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



¹² Note, different cohorts were required to accurately examine some outcomes. We used graduating cohorts for most outcomes, but for high school graduation rates, we had to use ninth grade cohorts (2013–2014 versus 2015–2016).

In terms of gender, male students had lower overall GPAs than both female students and students with an unknown gender (Figure 12). However, it is important to note that **male dual enrolled students did achieve a higher GPA than their non-dual-enrolled counterparts.**

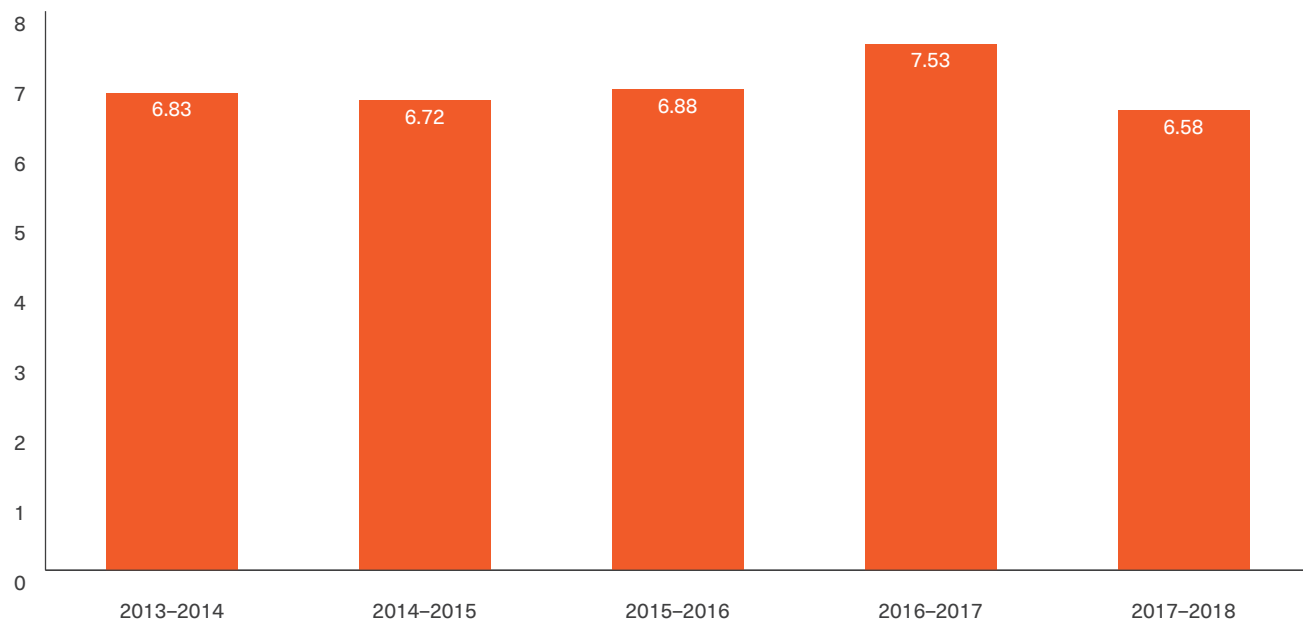
Figure 12. Average High School GPA upon High School Graduation by Dual Enrollment Participation and Gender (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



College Units Earned by High School Graduation

We then looked at how many college units students earned through dual enrollment participation by the time they graduated from DE4EC partner high schools 2015–2016 through 2019–2020 (Figure 13). **Among all dual enrolled students, the average number of units completed at a partnership college by high school graduation grew** from 6.61 units among the 2015–2016 graduating class to 7.62 college units for the 2018–2019 class.¹³ For high school students who graduated in 2019–2020 during the COVID-19 pandemic, the average college units completed dropped back down to 6.96. Again, a possible explanation for this dip is that the pandemic may have prevented students from earning college credits in the spring term of their senior year.

Figure 13. Average Number of College Units Earned by Dual Enrolled Students upon High School Graduation (Graduating Cohorts, 2015–2016 – 2019–2020)

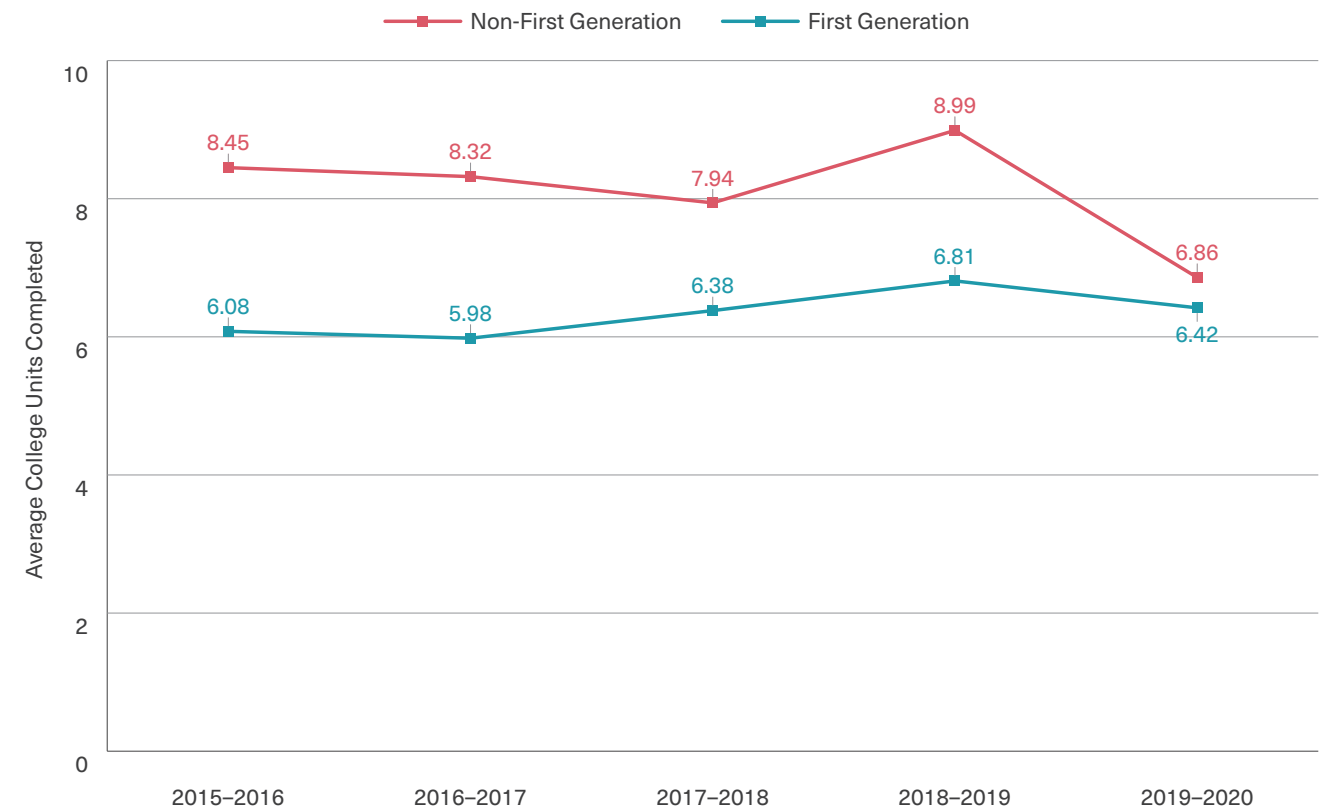


We also looked at the number of college units earned by dual enrolled students by demographic. When comparing by first-generation status, **dual enrollment students who would be the first in their families to attend college completed fewer college**

¹³ Most college courses equate to 3 units; however, labs often are 1–2 units, and English and math courses are often more than 3 units.

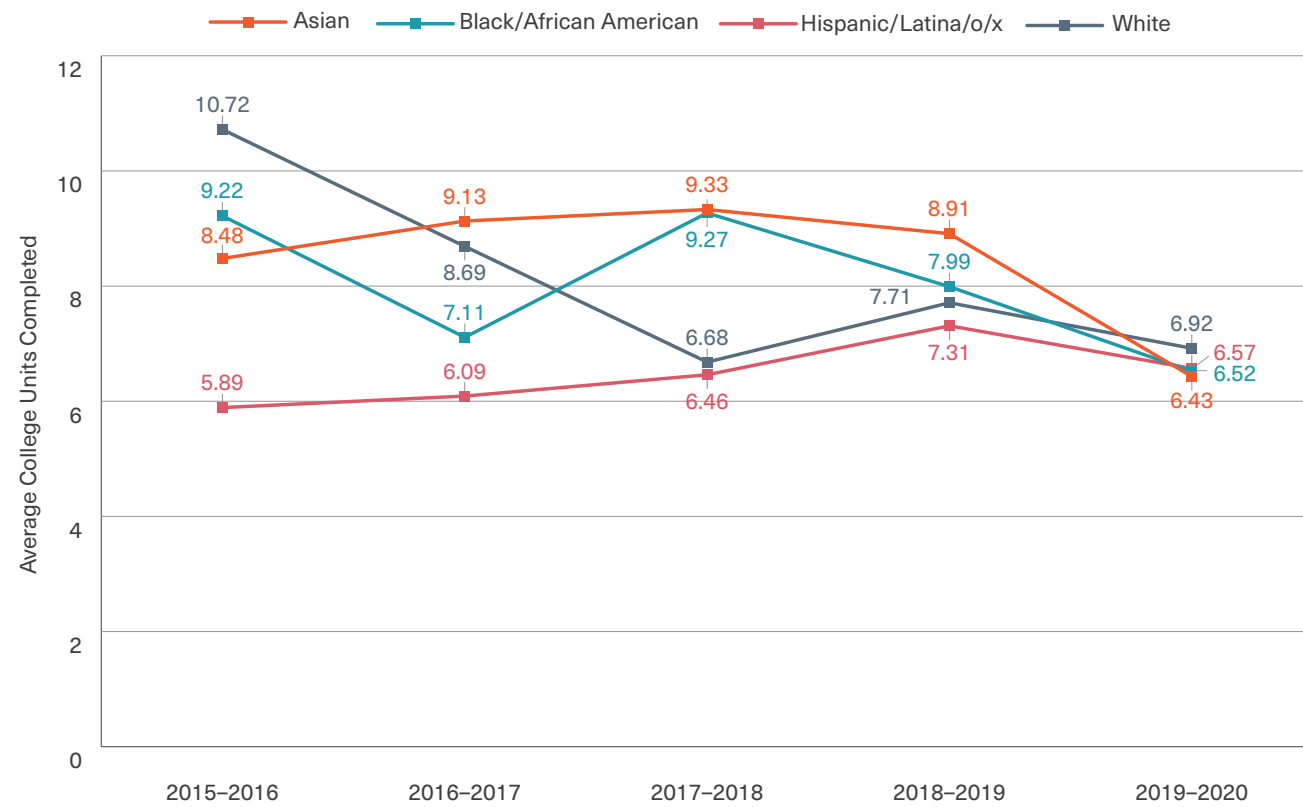
units by the time they graduated high school than their counterparts who would not be first-generation college students (Figure 14). However, what is interesting is that for the cohort who graduated in 2020, the difference between the two groups narrowed significantly, most likely related to the pandemic. Therefore, it will be critical to see whether this trend continues in subsequent years or if the pre-pandemic pattern returns.

Figure 14. Average Number of College Units Earned by Dual Enrolled Students upon High School Graduation by First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020)



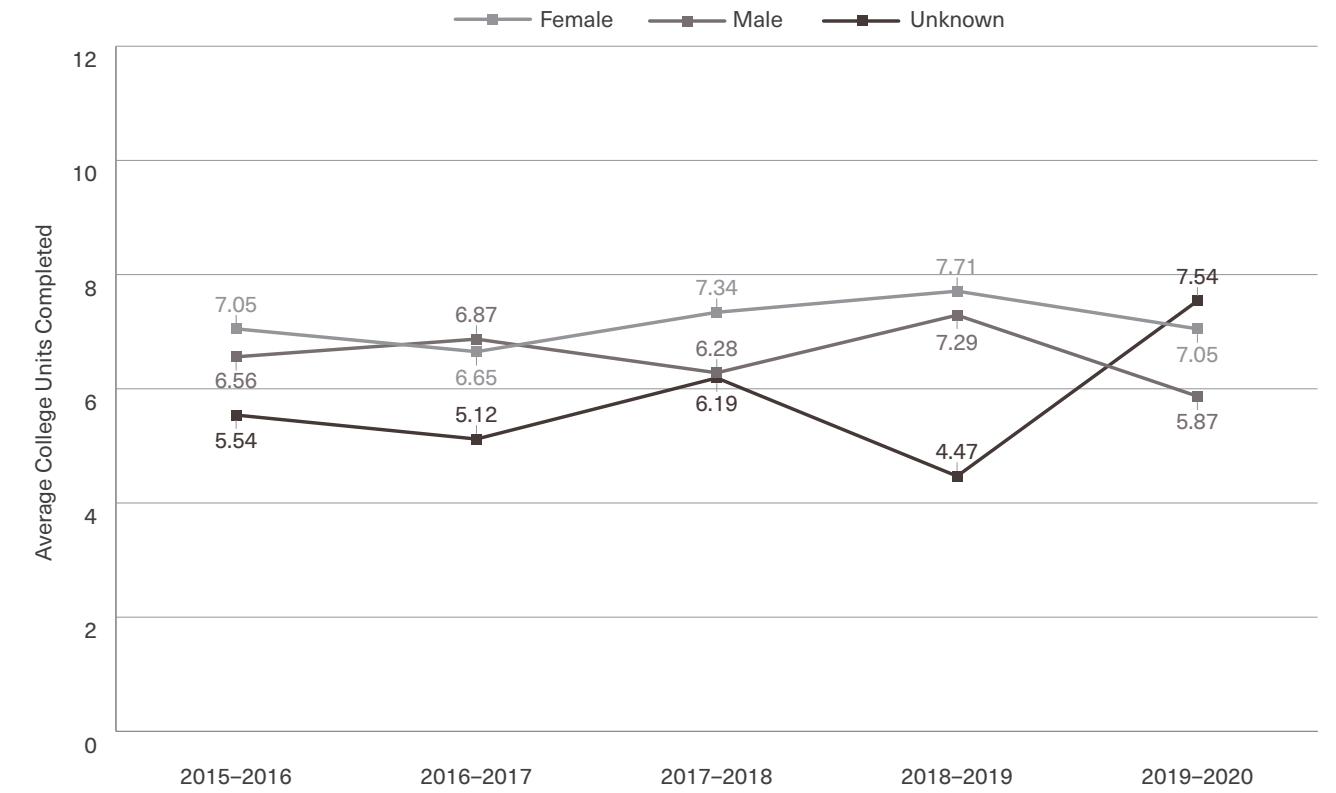
When examining college unit completion by race/ethnicity (Figure 15), **Hispanic/Latina/o/x students earned fewer college units by high school graduation than their counterparts, although this gap has been closing over time**, with a steady increase in the number of units completed by Hispanic/Latina/o/x between the 2015–2016 and 2018–2019 cohorts. It is important to note that a similar pattern emerges where the gaps between Asian and Hispanic/Latina/o/x students in pre-pandemic cohorts closed significantly for the cohort graduating in 2019–2020. This finding appears largely due to a drop in the average number of units completed by Asian students (rather than an increase among Hispanic/Latina/o/x students). The fluctuating pattern among Black/African American and White students may be related to shifts in the numbers of these students participating in dual enrollment each year.

Figure 15. Average Number of College Units Earned by Dual Enrolled Students upon High School Graduation by Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020)



When examining college unit completion by gender (Figure 16), female students tended to have more college units completed by the time they graduate high school and showed a steady increase between the 2016–2017 and 2018–2019 cohorts. College unit completion among male students and students with unknown gender fluctuated more from year to year. While units completed dropped among both male and female students in 2019–2020, the decline was more pronounced among male students. In contrast, students of unknown gender experienced a sharp increase in units completed among the 2019–2020 cohort. However, this shift may be related to changes in the numbers of these students participating in dual enrollment each year.

Figure 16. Average Number of College Units Earned by Dual Enrolled Students upon High School Graduation by Gender (Graduating Cohorts, 2015–2016 – 2019–2020)



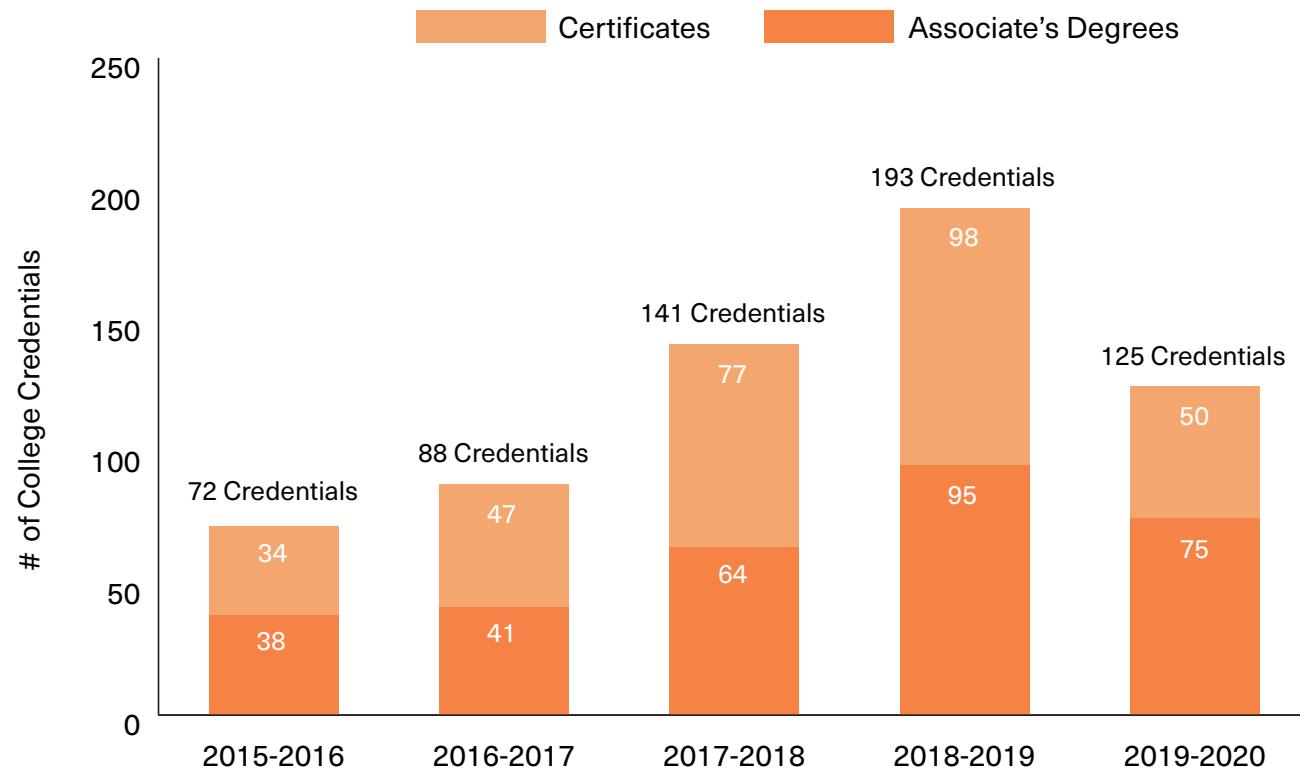
College Credentials Completed upon High School Graduation

For the 2015–2016 through the 2019–2020 graduating cohorts, **half of the DE4EC partnership colleges saw students completing college credentials upon high school graduation**, suggesting that a good portion of the partners participating in this initiative have a strong foundation for accelerating degree attainment among dual enrollment participants. The partnerships that awarded associate’s degrees and/or certificates continued to see successful participation and steady matriculation of student participants.

Due to the newness of their dual enrollment program, we did not include Madera in the high school cohorts for which this data point was measured. While all programs experienced steady dual enrollment participation, the dual enrollment programs at Berkeley City, Cuyamaca, Hartnell, and Skyline did not award any degrees or certificates during this period.

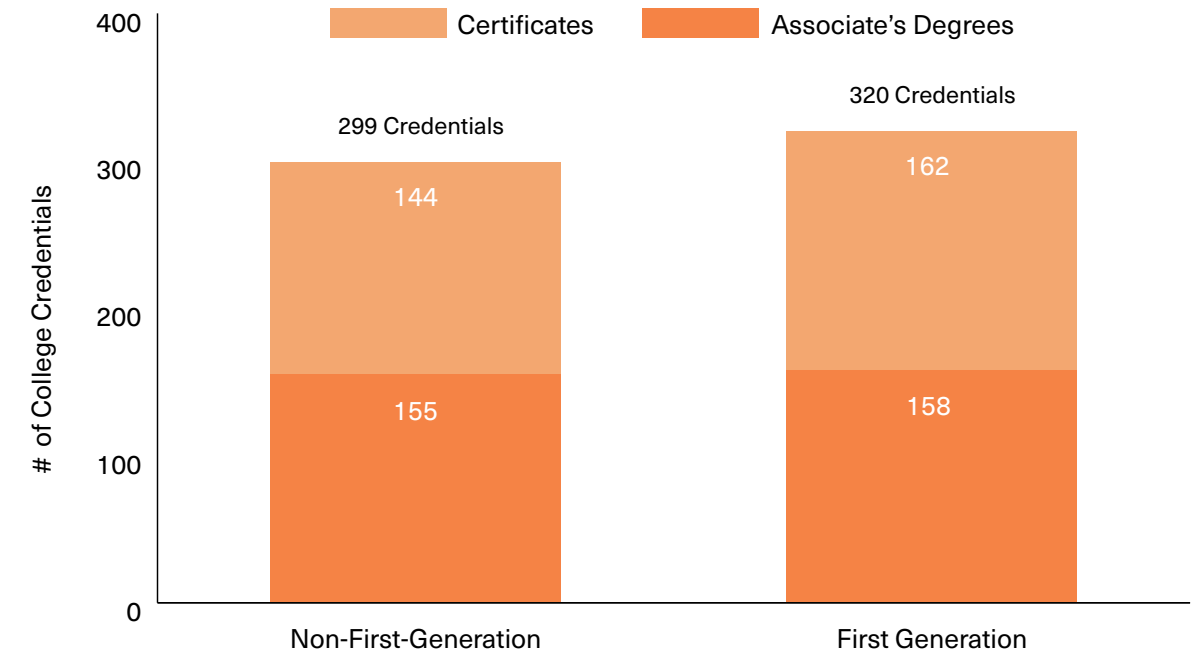
Across the partnerships, the total number of degrees and certificates completed by dual enrolled students increased steadily between 2015–2016 and 2018–2019 (Figure 17). However, these numbers dropped in 2019–2020, most likely a direct result of the COVID-19 pandemic interfering with this cohort’s ability to complete their credentials.

Figure 17. Dual Enrollment Student Completion of College Credentials upon High School Graduation (Graduating Cohorts, 2015–2016 – 2019–2020)



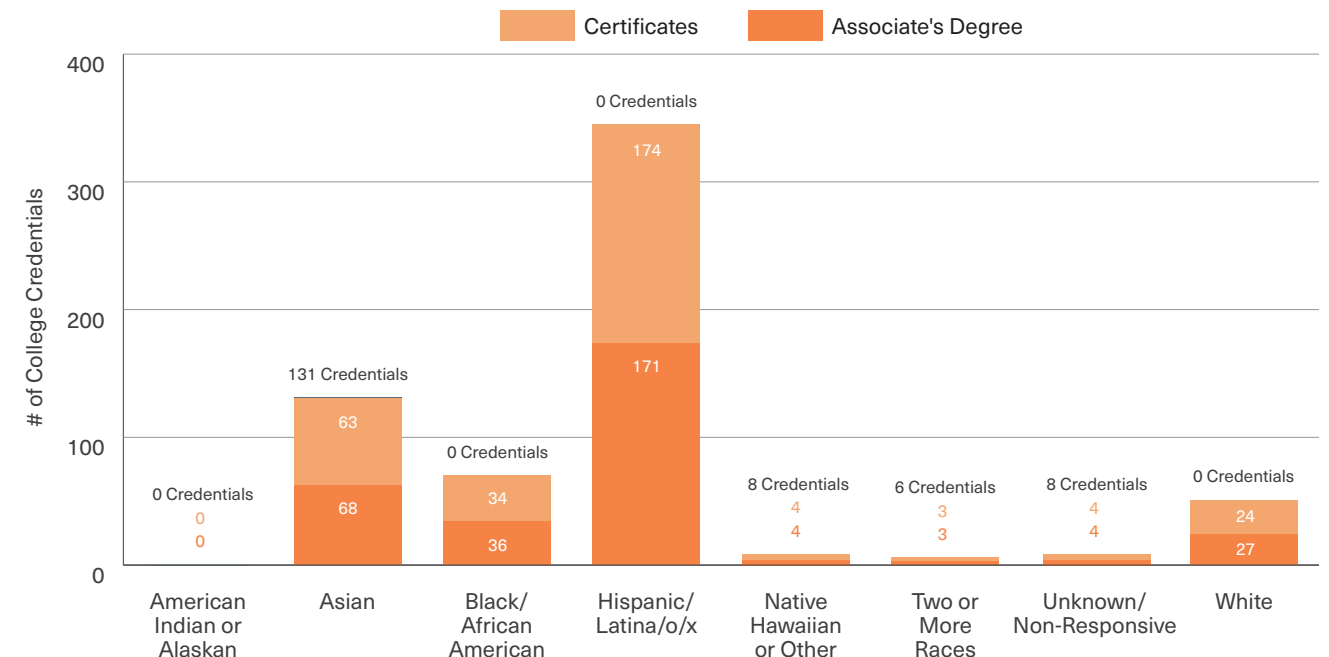
We next examined dual enrolled students’ completion of credentials by demographic across all graduating high school cohorts, 2015–2016 through 2019–2020 combined. Among dual enrolled students, first-generation students earned slightly more degrees and certificates than their non-first-generation counterparts (Figure 18).

Figure 18. College Credential Completion by Dual Enrolled Students upon High School Graduation by First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



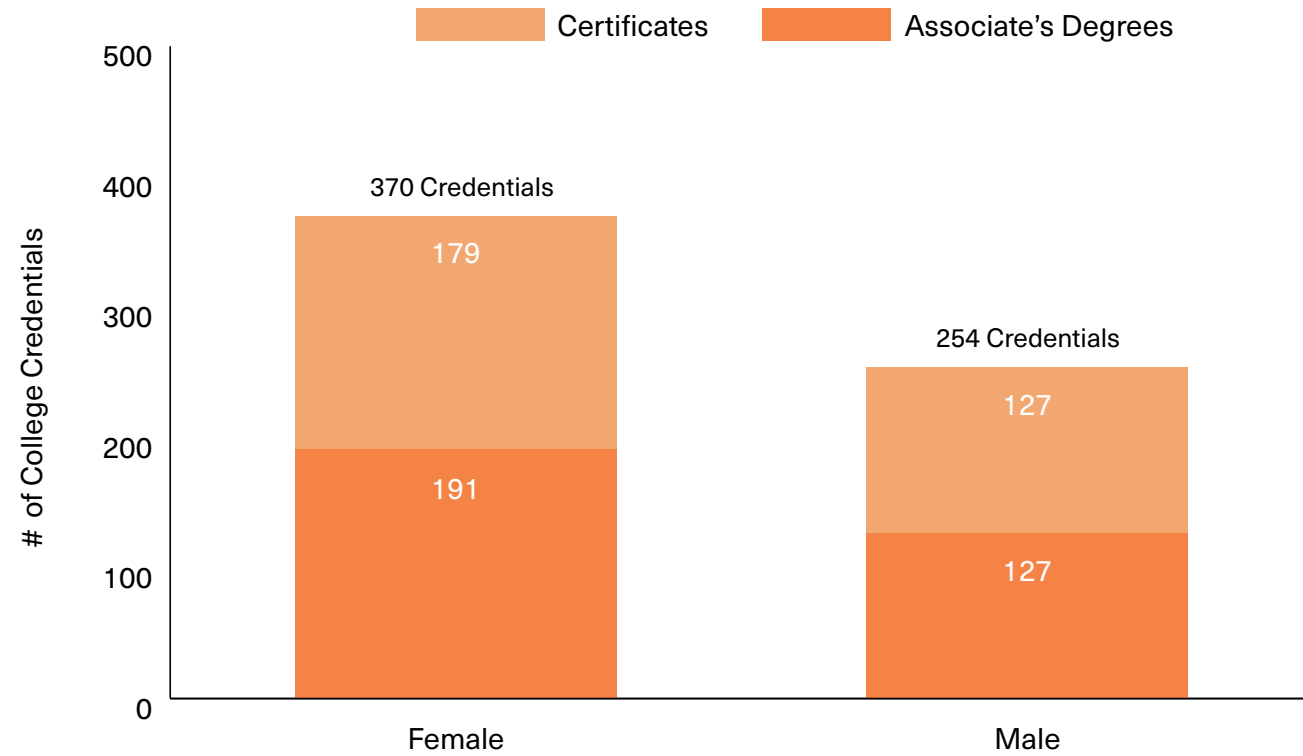
Similar to their representation among high school graduates, Hispanic/Latina/o/x students earned the majority of the associate’s degrees among dual enrolled students (Figure 19). We see the same pattern among certificate completers.

Figure 19. College Credential Completion by Dual Enrolled Students upon High School Graduation by Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



Female students were slightly more likely to earn a degree than a certificate, while male students were equally as likely to earn a degree or certificate (Figure 20).

Figure 20. College Credential Completion by Dual Enrolled Students upon High School Graduation by Gender (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



College Enrollment and Success Outcomes

This analysis also offered an opportunity to understand if *DE4EC* partnerships were on a path prior to joining the initiative to increasing students' access to and success in postsecondary education coming into the initiative's launch. To examine these trends, we explored college enrollment and success metrics for dual enrollment participants involved in these programs.

We began by looking at how many dual enrolled students enrolled at a postsecondary institution in the year following their high school graduation and compared these figures to their non-dual-enrolled peers. Next, we showed how dual enrolled students performed in their first year in community college compared to their peers who graduated at the same time from the same high schools who did not participate in dual enrollment. Again, we also looked at these outcomes by student characteristic to explore how prior dual enrollment participation among historically underrepresented groups contributes to a strong higher education transition.

College Enrollment

Across the years, the number of dual enrollment participants enrolling in postsecondary institutions within one year of graduating from high school steadily increased (Figure 21). **While students who previously participated in dual enrollment increased their college attendance, higher education participation declined among students who did not experience dual enrollment while in high school.** Although college-going decreased among both dual enrolled and non-dual-enrolled students in 2020 most likely due to the pandemic, the drop among dual enrolled students was almost indistinguishable compared to the sharp decline among their non-dual-enrolled counterparts.

Figure 21. Postsecondary Enrollment within One Year of High School Graduation by Prior Dual Enrollment Participation (Graduating Cohorts, 2015–2016 – 2019–2020)

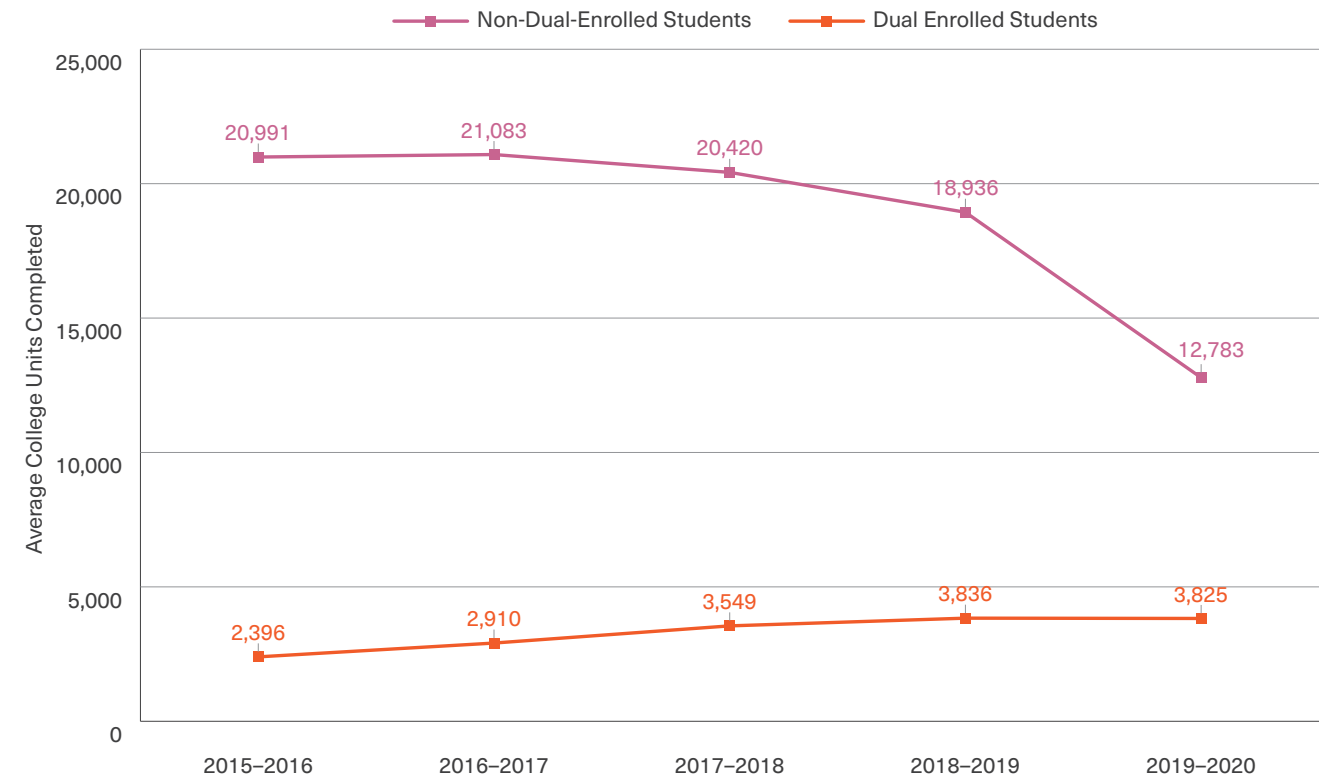
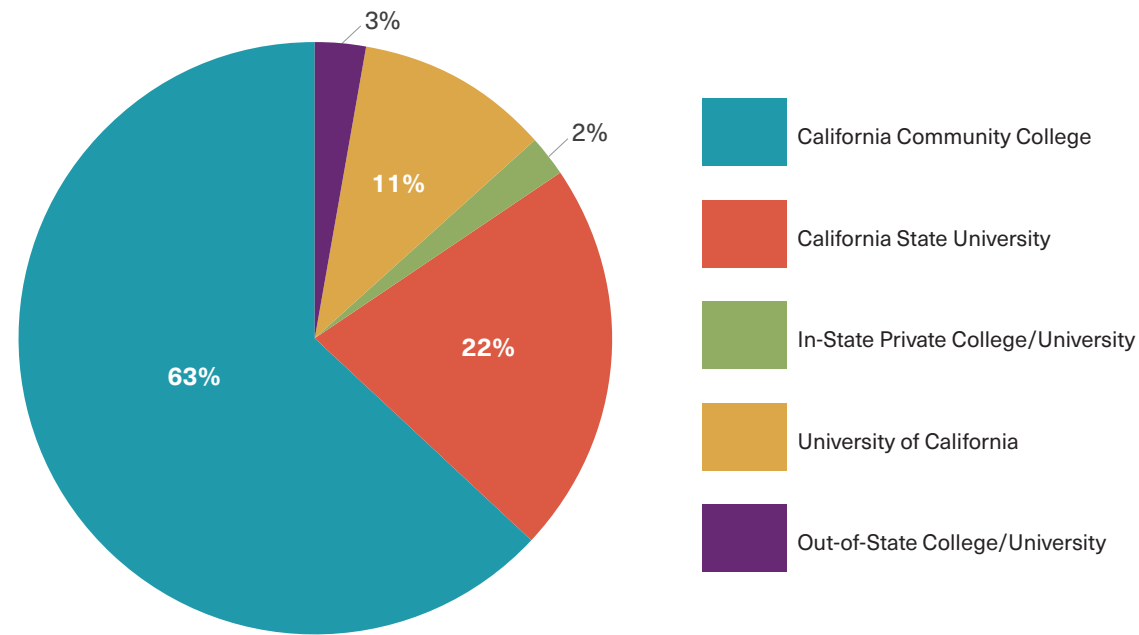


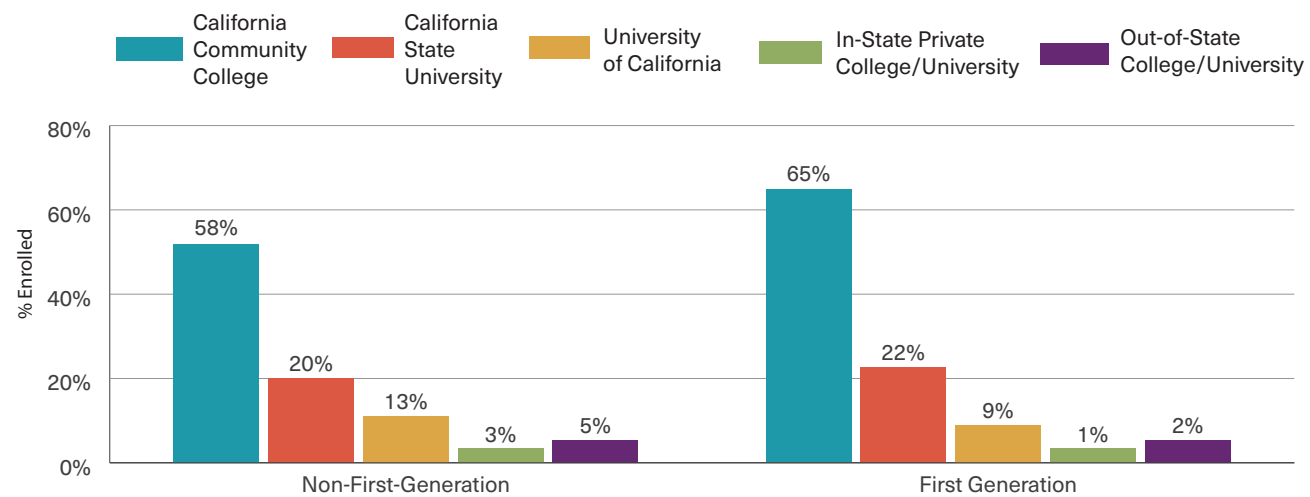
Figure 22 shows what type of postsecondary institution dual enrolled students attended after graduating high school across all graduating cohorts, 2015–2016 through 2019–2020 combined. Most enrolled in the California Community Colleges (CCC, 63%), followed by the California State University (CSU; 22%) and University of California (UC; 11%) systems.

Figure 22. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



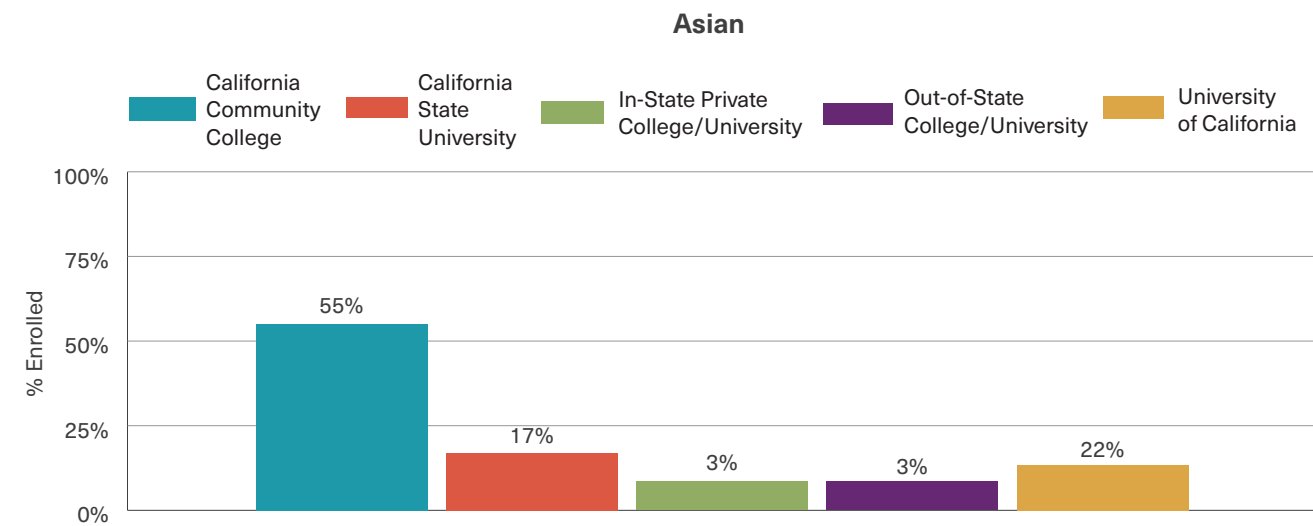
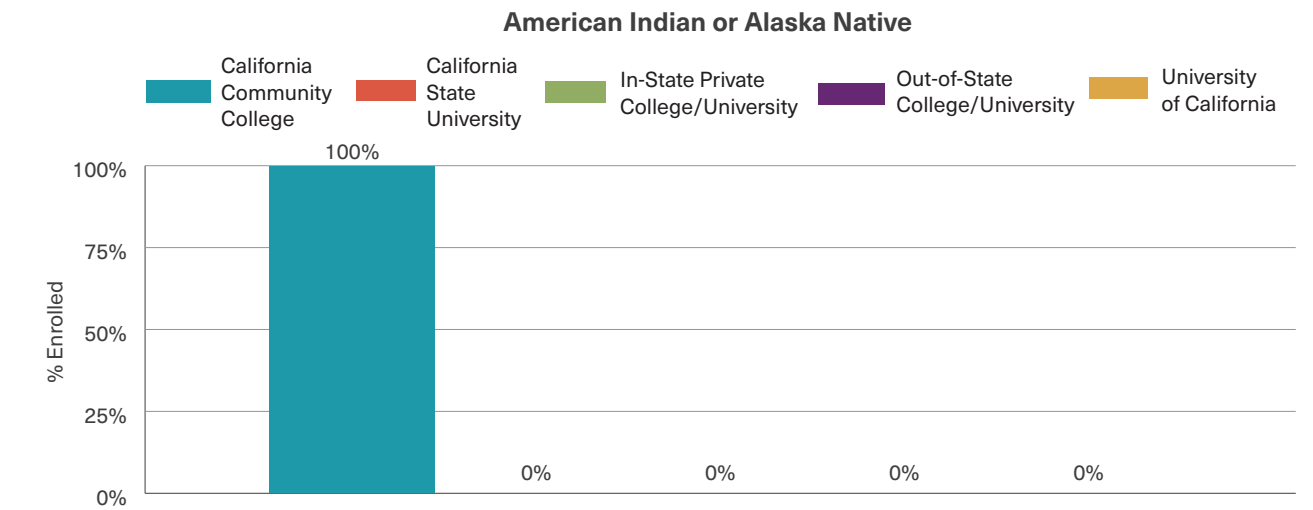
When we look at where dual enrollment participants enrolled by demographic, a few notable findings emerged. Across the partnerships, **first-generation students were more likely to enroll in the CCC and CSU systems**, while non-first-generation students were more likely to enroll at a UC, in-state private, and out-of-state institution (Figure 23).

Figure 23. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by First-Generation Status and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

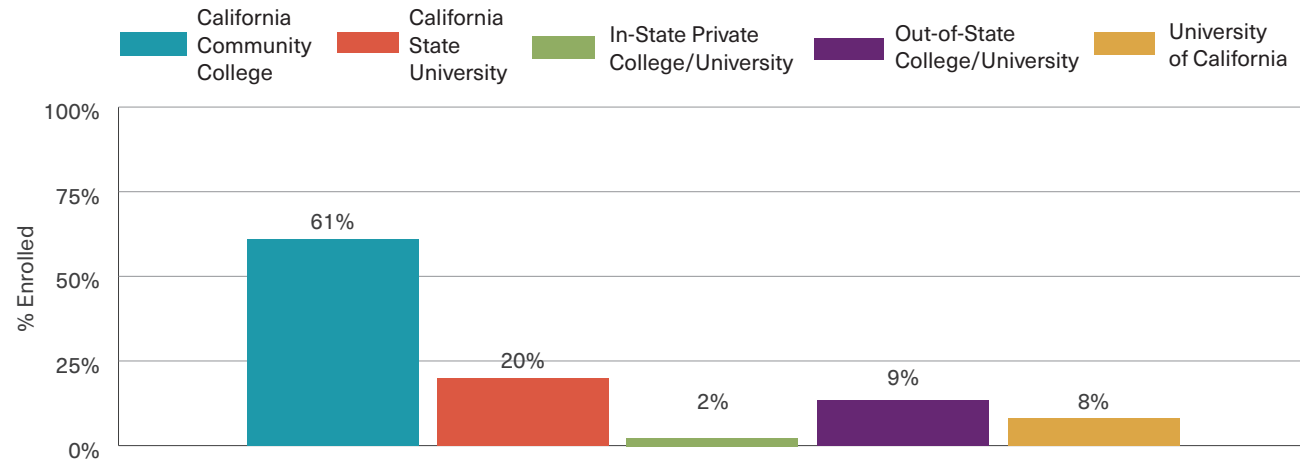


While the majority of dual enrolled students from every race/ethnicity enrolled in the CCC, Black/African American, Hispanic/Latina/o/x, and Native Hawaiian or Other Pacific Islander students were more likely to attend a California community college than their peers who identify as Asian, White, two or more races, or were of unknown race/ethnicity. Asian students who previously participated in dual enrollment were the most likely to enroll at a UC. Native Hawaiian or Other Pacific Islander students or those who had an unknown race/ethnicity were more likely to enroll at a CSU. Black/African American, White, and multiracial students were more likely than students of other races/ethnicities to attend an out-of-state college. White and multiracial students were also more likely to enroll at an in-state private institution (Figure 24).

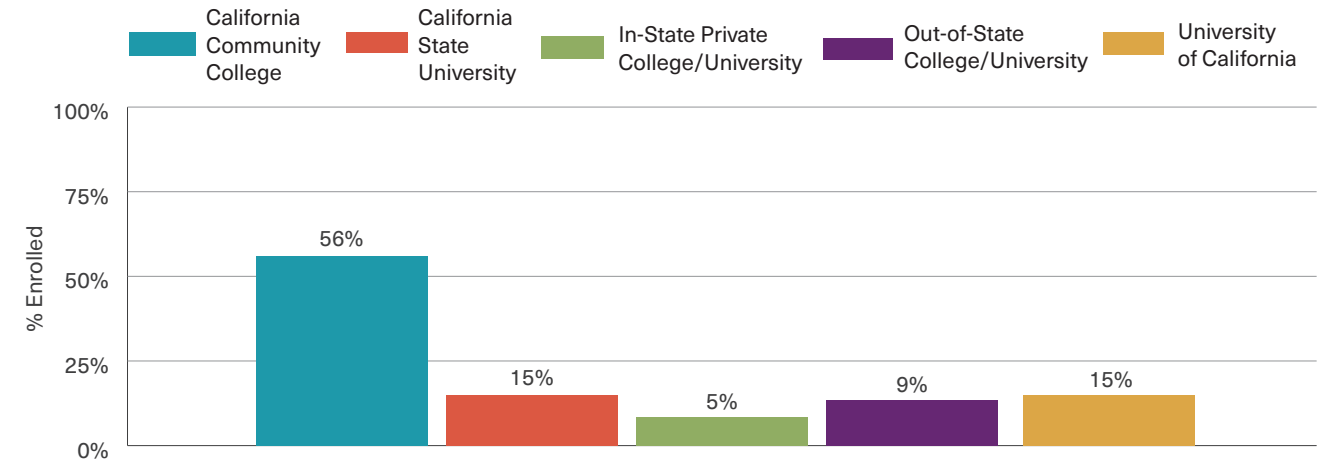
Figure 24. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Race/Ethnicity and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



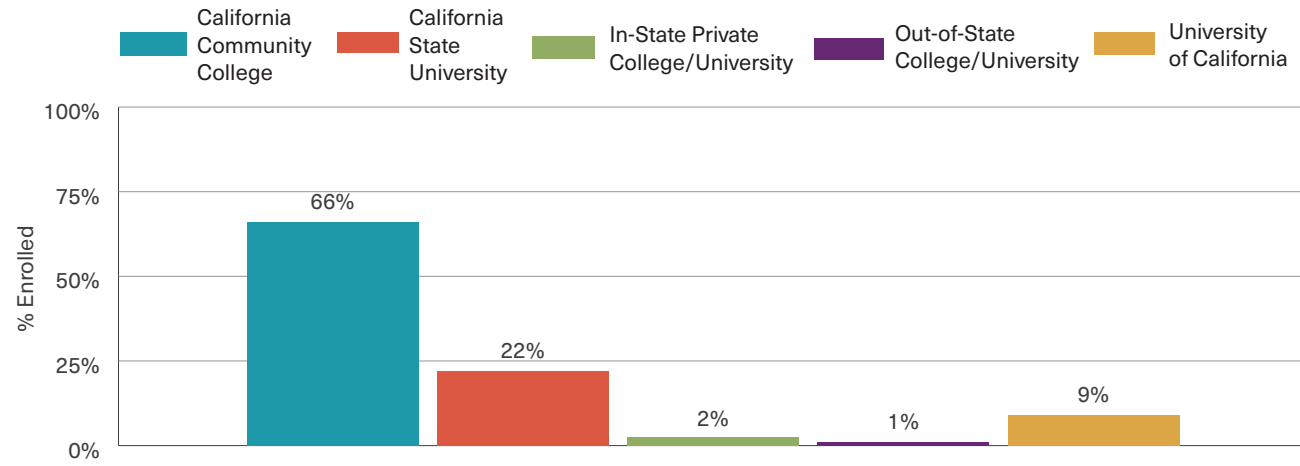
Black/African American



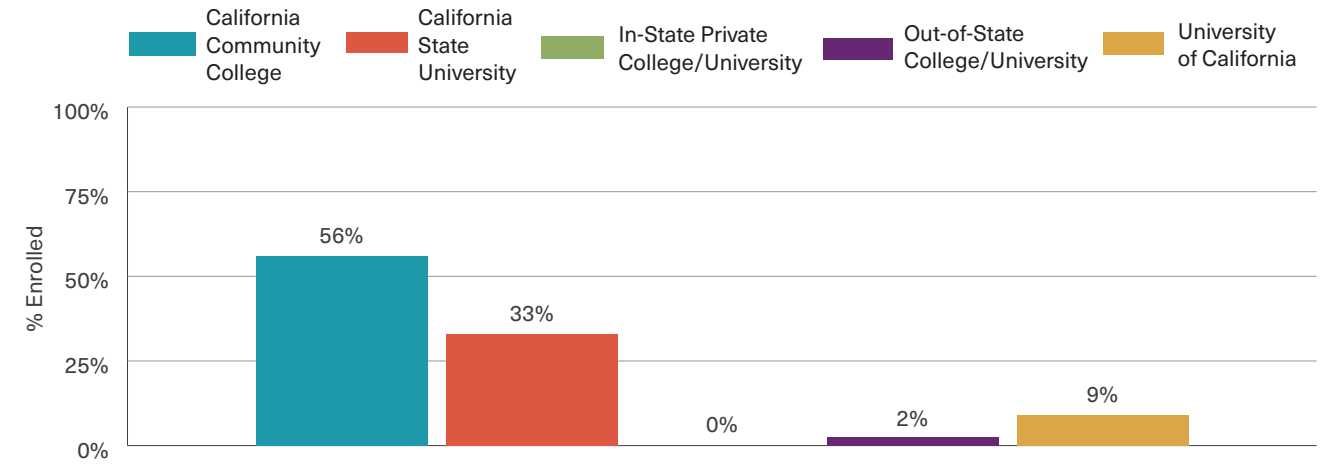
Two or More Races



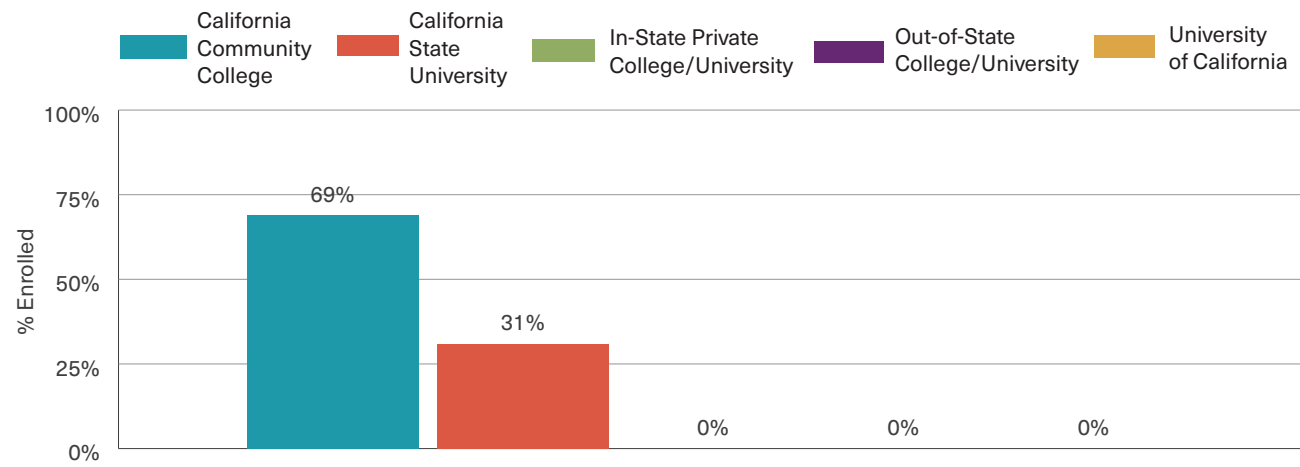
Hispanic/Latina/o/x

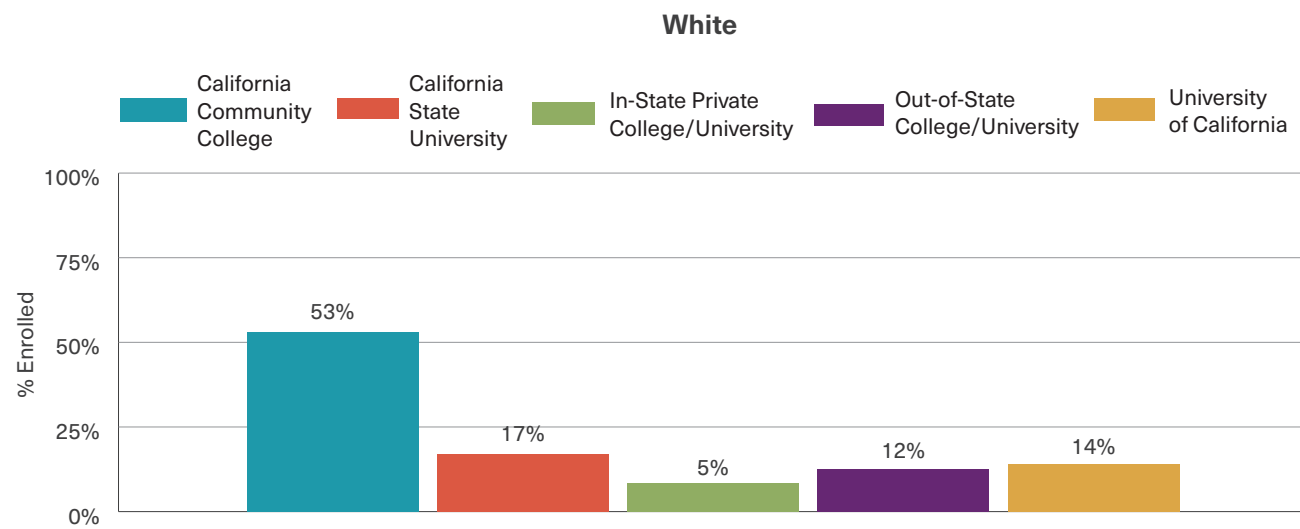


Unknown/Not Reported



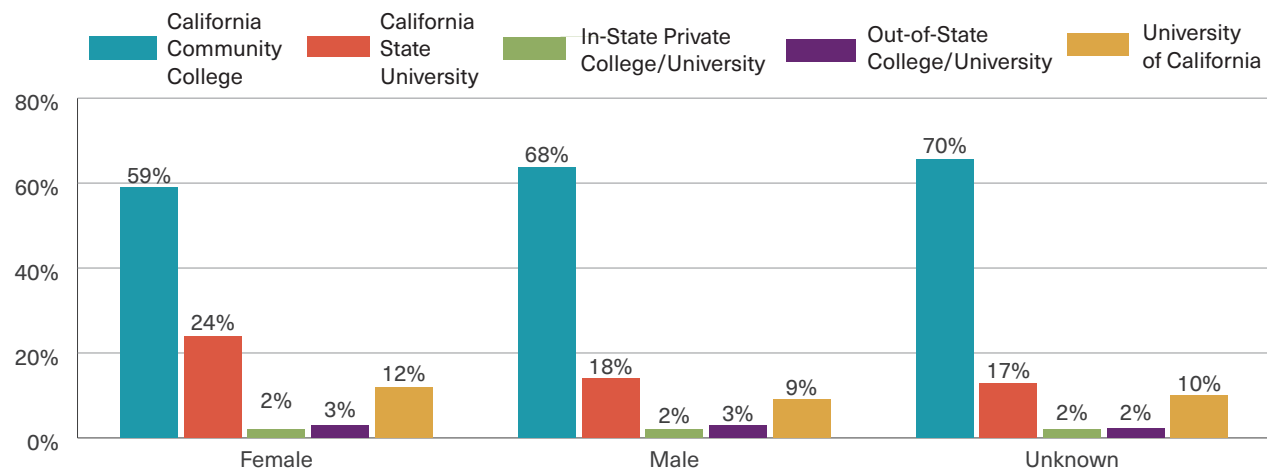
Native Hawaiian or Other Pacific Islander





Female dual enrolled students were less likely to enroll at a CCC than male students and students with an unknown gender; consequently, **female students were more likely to attend CSU and UC**. The proportions of students attending out-of-state and in-state private institutions did not vary by gender (Figure 25).

Figure 25. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Gender and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)



First-Year College Success

Analysis of first-year college success metrics also showed promise for the positive impact prior dual enrollment participation can have on students' transition into and through their first year in higher education.

First-Semester Course Success Rates

To explore how prior dual enrollment participation impacted first-term course success, we compared the pass rates of students with and without dual enrollment experience in their first fall term at partnership community colleges. Our analysis looked at how students who previously participated in dual enrollment and graduated from a partner high school performed during their first fall term as a postsecondary student at a *DE4EC* partner college and compared them to non-dual-enrolled first-time freshmen.

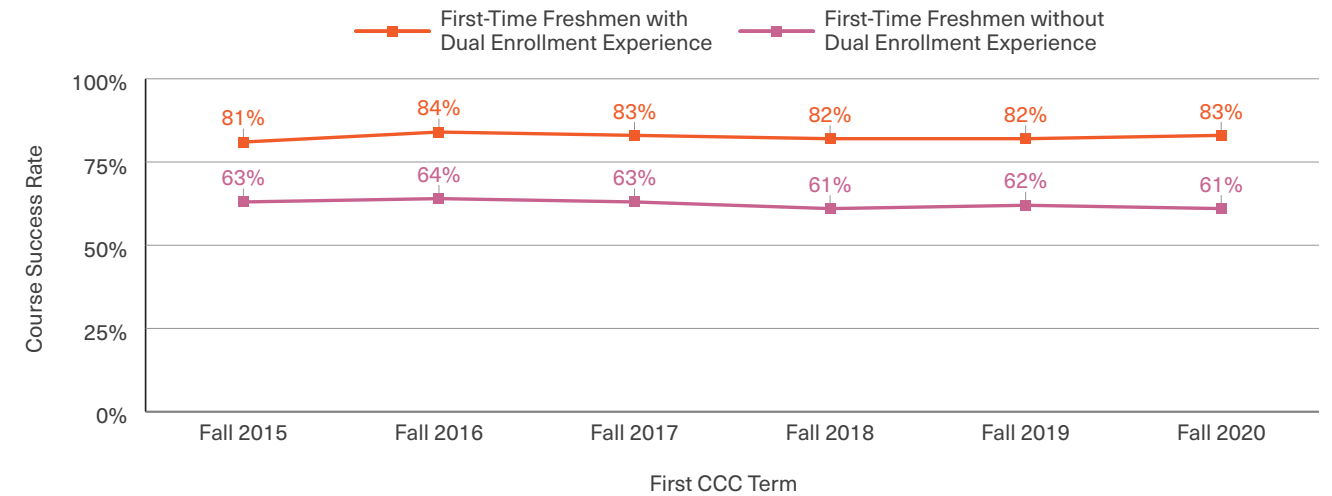
This analysis found that **former dual enrollment participants consistently outperformed their counterparts by about 20 percentage points**. In fall 2015, formerly dual enrolled students successfully completed¹⁴ 81% of 3,544 attempted college

¹⁴ Successful course completion means a student received an A, B, C, or Pass grade.

courses, compared with a course success rate of 63% (31,692 attempted courses) for non-dual-enrolled first-time freshmen attending partnership colleges in the same year.

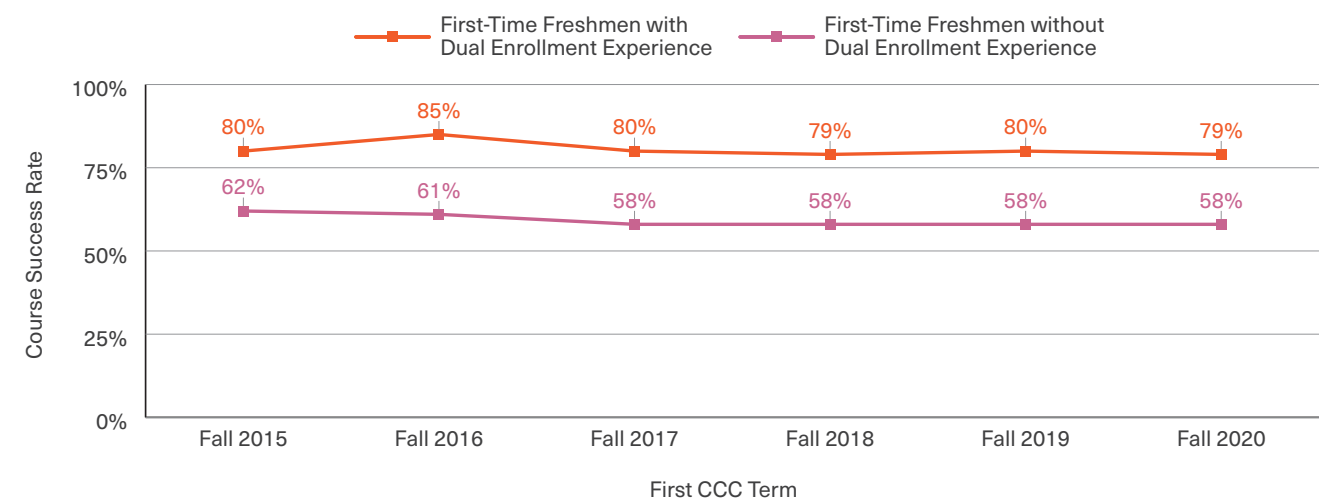
Formerly dual enrolled students consistently outperformed their peers in all terms observed. **Even as dual enrollment grew and enrollments became more diverse between 2015 to 2020, course success in the first year of college continued to increase for formerly dual enrolled students** (Figure 26). Of note is that the success rates for both groups at partnership colleges did not suffer during the first year of the pandemic in 2020.

Figure 26. First Semester Course Success Rates by Prior Dual Enrollment Participation (Fall 2015 – Fall 2020)



First-semester course success rates were also much higher for formerly dual enrolled students when disaggregating by first-generation status (Figure 27). First-generation students who previously participated in dual enrollment had course success rates that consistently hovered around 80% compared to around 60% for first-generation, first-time freshmen at partnership colleges who did not participate. While the course success rate for first-generation students with prior dual enrollment participation was slightly lower in fall 2020 (79%; Figure 28) when compared to all formerly dual enrolled students (83%; Figure 27), the gap in success rates is relatively small. For comparison, for all CCC students in 2020–2021, first-generation students had a 72% course success rate, and non-first-generation students had a 78% course success rate.¹⁵

Figure 27. First Semester Course Success Rates for First-Generation Students by Prior Dual Enrollment Participation (Fall 2015 – Fall 2020)

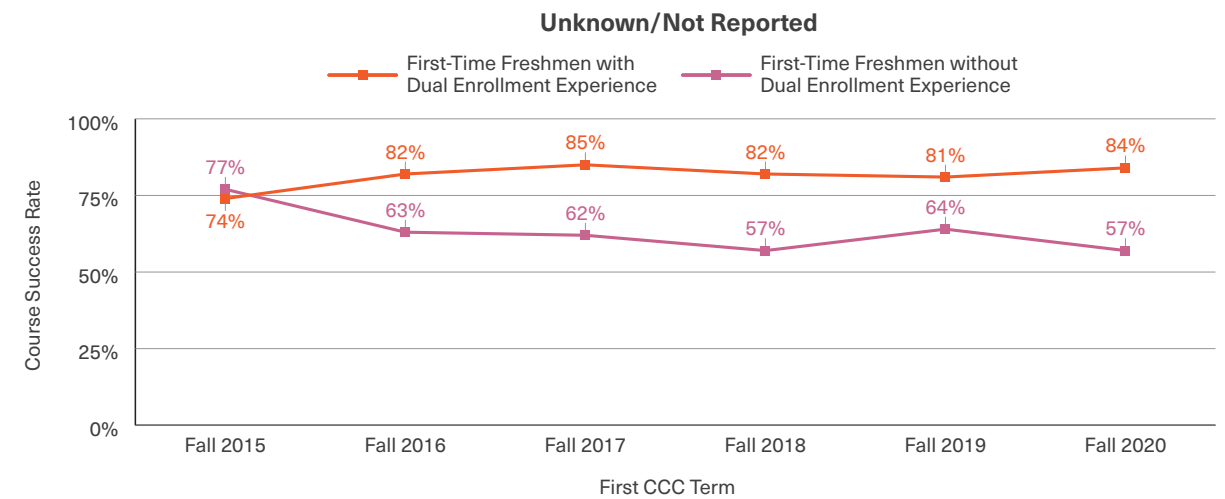
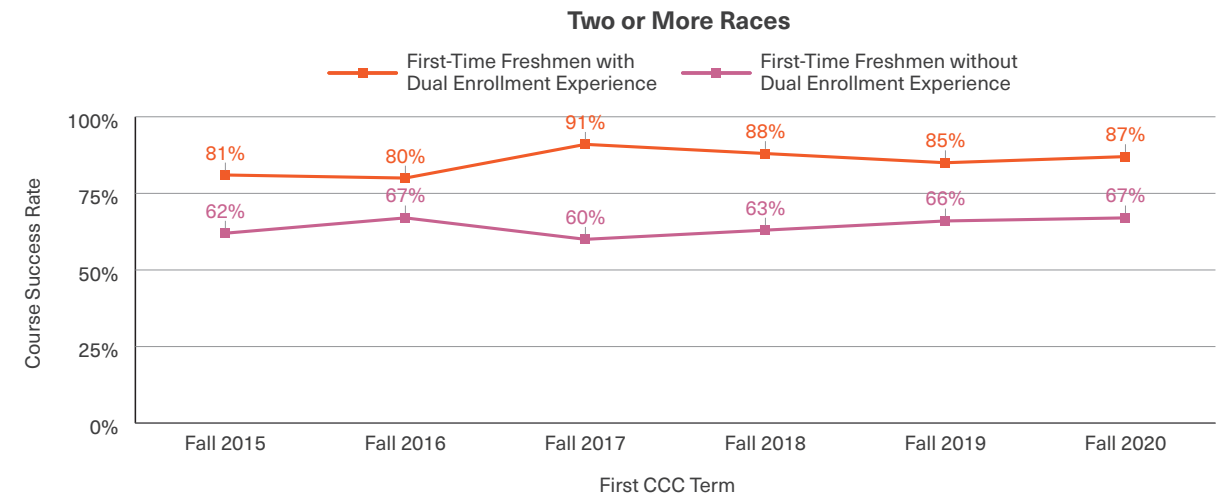
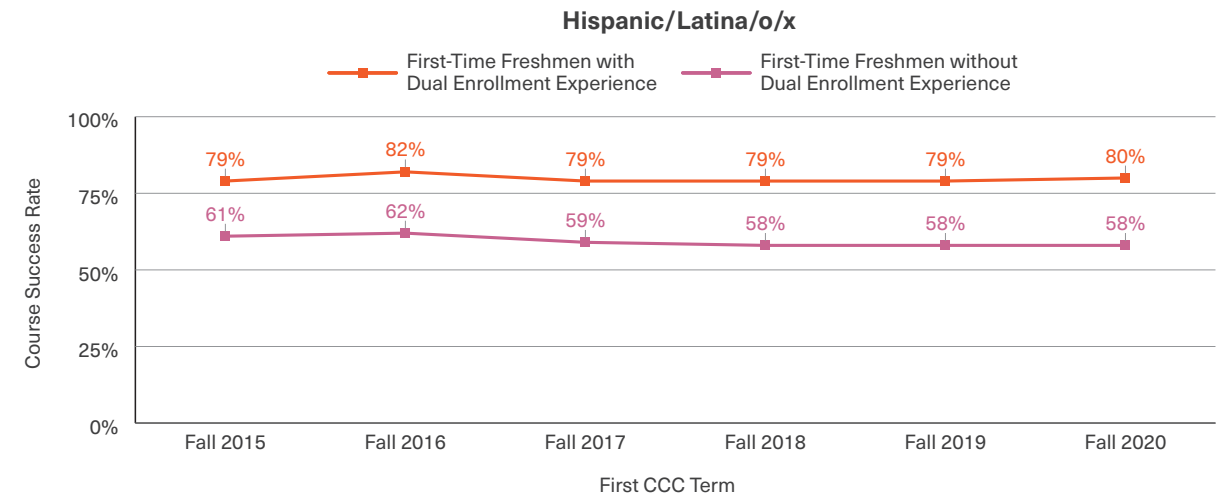
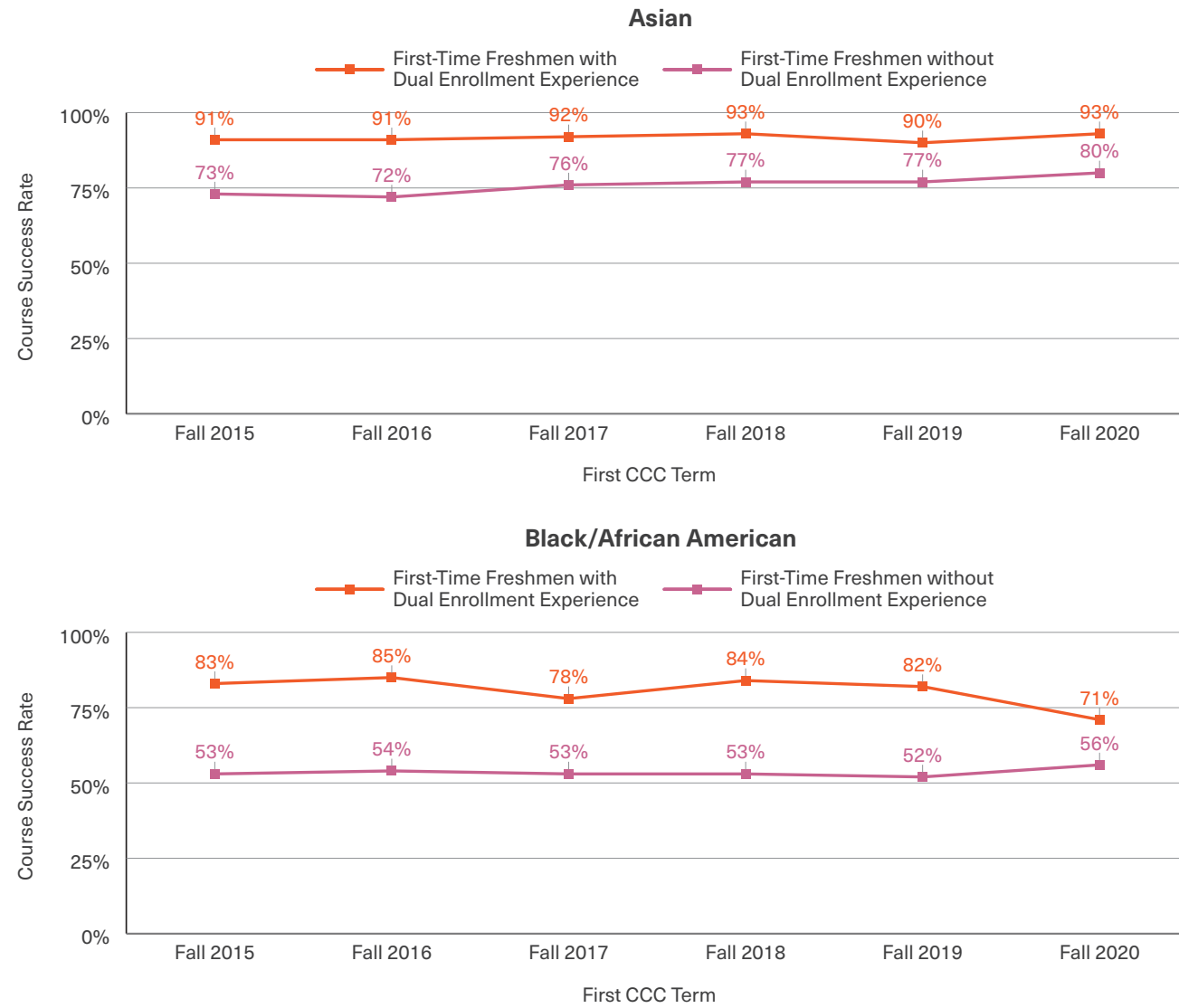


¹⁵ Based on data from the LaunchBoard's Student Success Metrics dashboard. LaunchBoard is a statewide data system and dashboard platform hosted by Cal-Pass Plus and supported by the California Community Colleges Chancellor's Office. Find more information at <https://www.calpassplus.org/LaunchBoard/Student-Success-Metrics.aspx>.

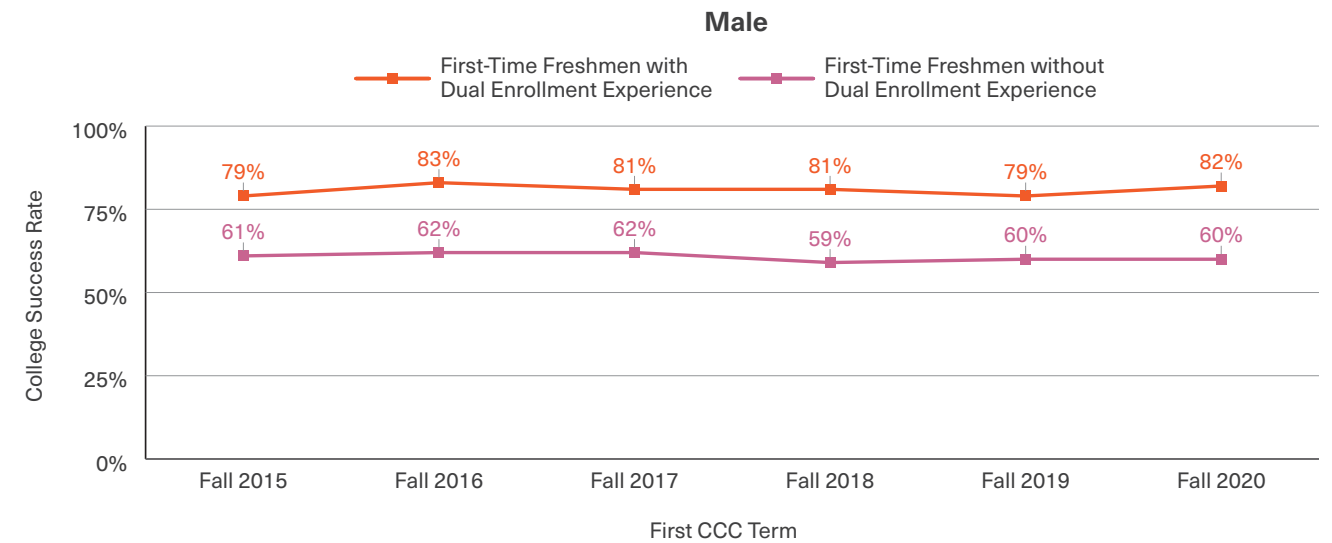
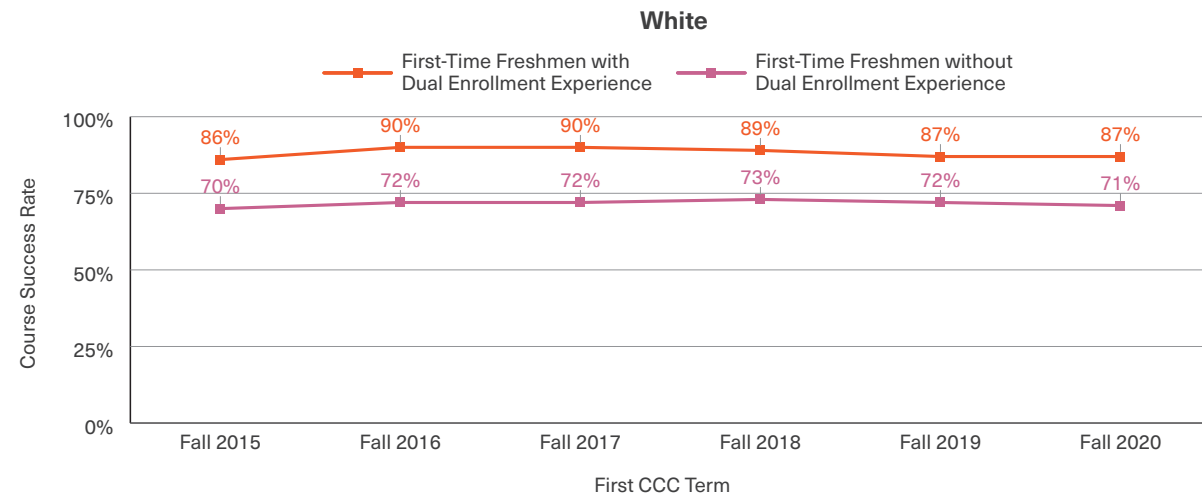
Figure 28 shows fall course success rates for formerly dual enrolled students compared to their freshman peers who did not participate by race/ethnicity. Like the overall pattern, **Hispanic/Latina/o/x students who previously participated in dual enrollment had success rates that were about 20 percentage points higher than counterparts who did not.**

Prior to 2020, **dual enrolled Black/African American students had course success rates that were between 20 and 30 percentage points higher than that of their non-dual-enrolled peers.** The drop among dual enrolled and the increase among non-dual-enrolled Black/African American students in 2020 both relate directly to the large decreases in the number of Black/African American students in both groups. It will be important to monitor these rates among Black/African American students in subsequent years to determine whether this year was an anomaly or the beginning of a shifting trend.

Figure 28. First Semester Course Success Rates by Prior Dual Enrollment Participation and Race/Ethnicity¹⁶ (Fall 2015 – Fall 2020)

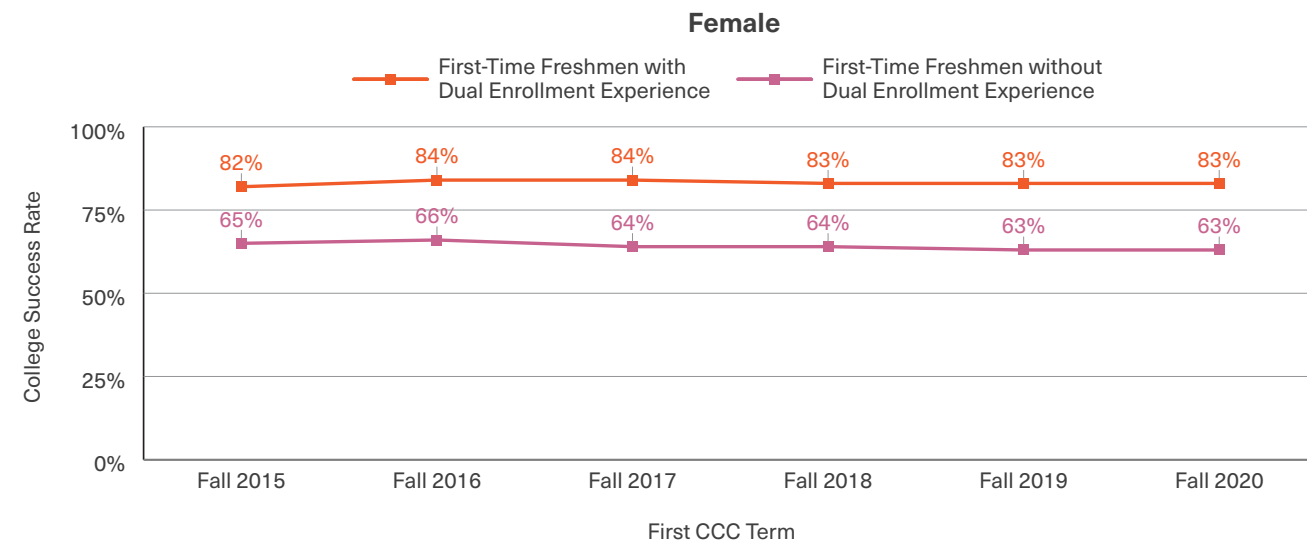
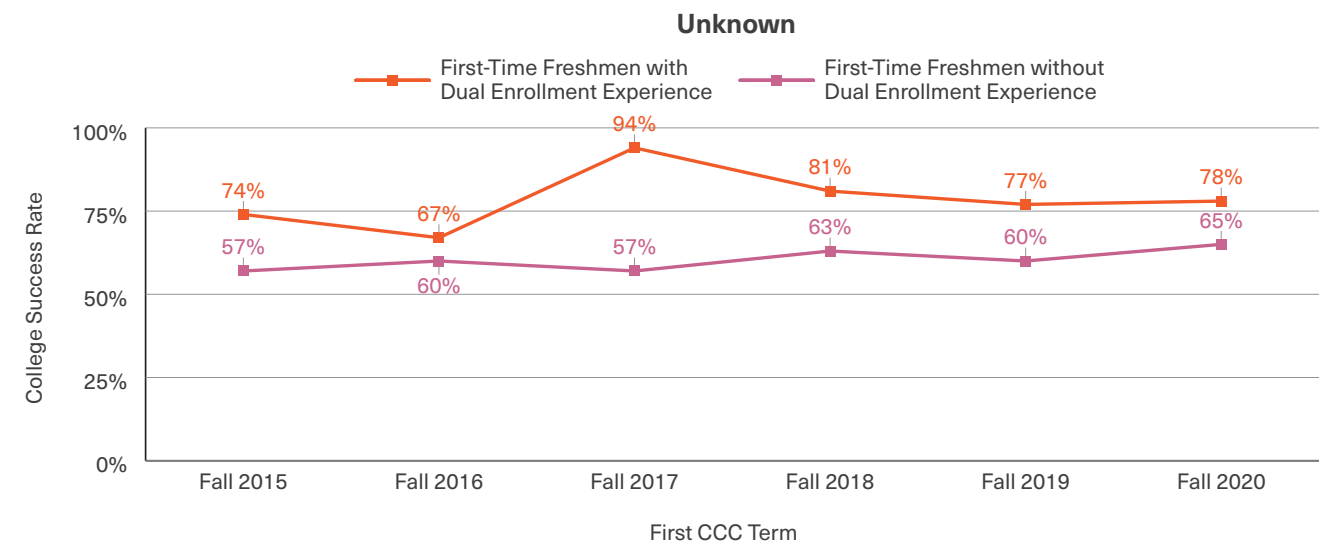


¹⁶ American Indian or Alaskan Native and Native Hawaiian or Other Pacific Islander students were excluded from this analysis because in some years there were fewer than 10 students.



In terms of fall course success by gender, there are no discernible distinctions observed in the disparity between first-time freshmen with and without dual enrollment experience (Figure 29). However, while fall course success rates stayed consistent between fall 2019 and fall 2020 for female students regardless of dual enrollment experience as well as for males without dual enrollment experience, **course success rates increased from 79% to 82% for male students with dual enrollment experience during that period.** This finding is interesting considering research that has shown the disproportionate impact of the pandemic on male students.¹⁷ Our data confirm previous research that male student enrollment has declined more precipitously than for female students: between fall 2019 and fall 2020, first-time freshman enrollment across our partnership colleges fell 18% for female students and 25% for male students. However, males with dual enrollment experience who did enroll had higher course success rates.

Figure 29. First Semester Course Success Rates by Prior Dual Enrollment Participation and Gender (Fall 2015 – Fall 2020)



One-Term Retention Rates

When compared to first-time students enrolled in a California community college after graduating from partnership high schools, students who previously participated in dual enrollment courses had higher rates of retention. Here, we are comparing students with and without dual enrollment experience from partnership high schools, regardless of what community college they attended after high school graduation. All students included in this specific analysis entered a California community college as their first postsecondary enrollment after high school graduation.

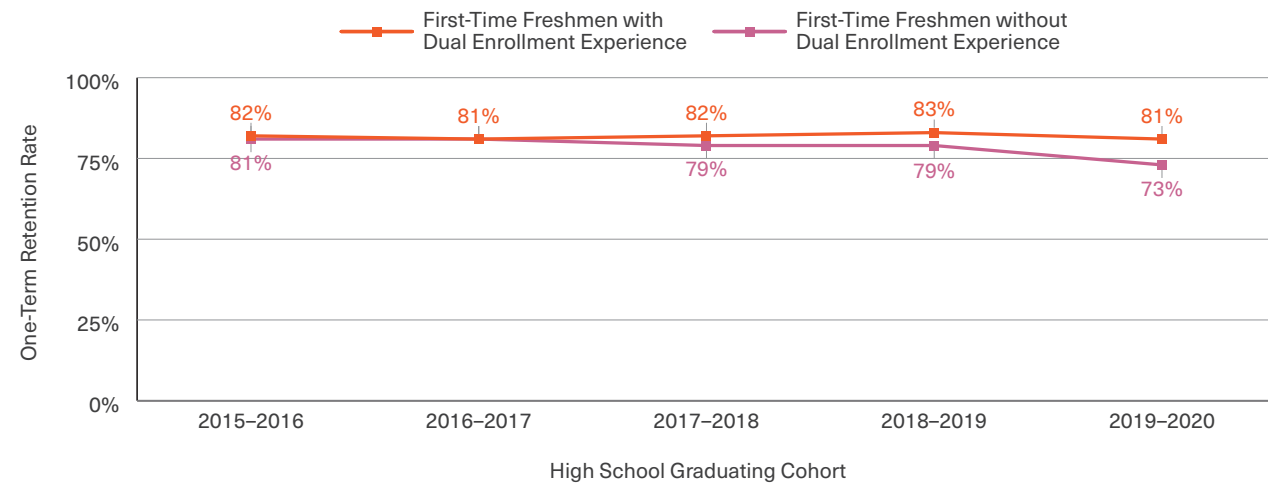
Since we are primarily interested in how students with dual enrollment experience performed in relationship to other first-time college students who also came from partnership high schools, we compared students by their high school graduation year, regardless of if they entered college in the fall directly after their high school graduation or took a gap year. However, we calculated all one-term retention rates only for students who entered college during a fall term and persisted to the following spring.

¹⁷ <https://www.chronicle.com/featured/student-success/student-centric-institution/male-enrollment-crisis>

For the 2015–2016 graduating high school cohort, 82% of first-time freshmen with prior experience in dual enrollment were still enrolled in a community college in the subsequent term, compared with 81% of first-time freshmen from the same high schools who did not have prior dual enrollment experience (Figure 30).

Over time, a gap formed in one-term retention rates between those who did and did not have dual enrollment experience. For students who graduated high school during the pandemic in the 2019–2020 academic year and subsequently enrolled in any California community college, the one-term retention rate remained steady at 81% for those with dual enrollment experience, while the one-term retention rate for non-dual-enrolled first-time freshmen dropped to 73%. This finding suggests that having dual enrollment experience may have helped students navigate college during the pandemic.

Figure 30. One-Term Retention Rates in California Community Colleges by Prior Dual Enrollment Participation (Graduating Cohorts, 2015–2016 – 2019–2020)



Differences in one-term retention for first-time freshmen who were first-generation students also grew over time for formerly dual enrolled students compared to their peers who did not participate (Figure 31). While slight for the 2015–2016 high school graduating cohort who subsequently enrolled in a CCC, the gap widened notably for the 2019–2020 high school graduating cohort; 79% of formerly dual enrolled students who were first-generation college-goers persisted from fall to spring, compared with only 71% of their peers without dual enrollment experience.

Figure 31. One-Term Retention Rates in California Community Colleges for First-Generation Students by Prior Dual Enrollment Participation (Graduating Cohorts, 2015–2016 – 2019–2020)

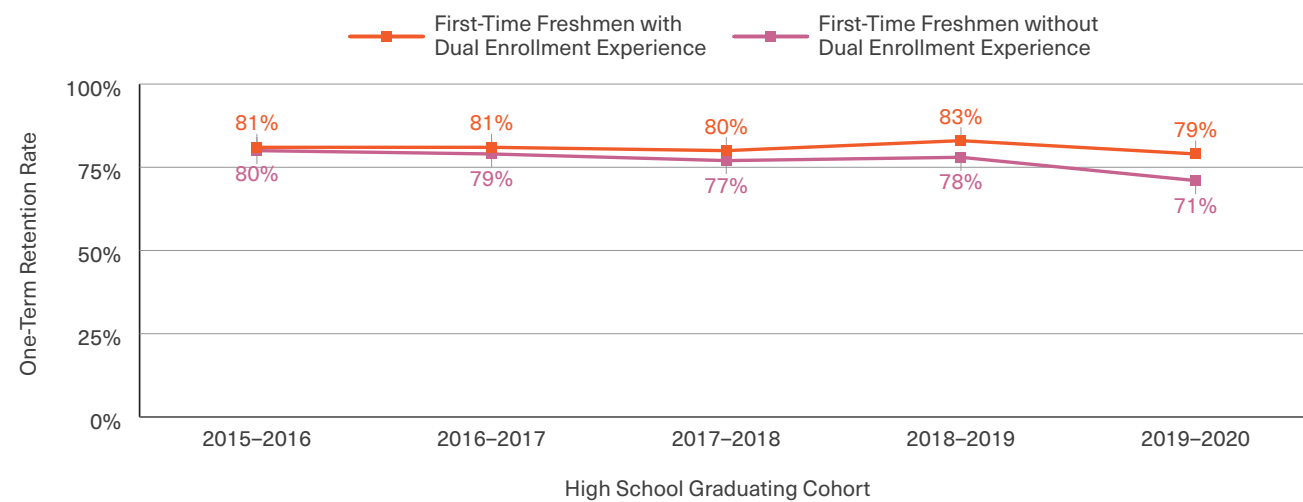
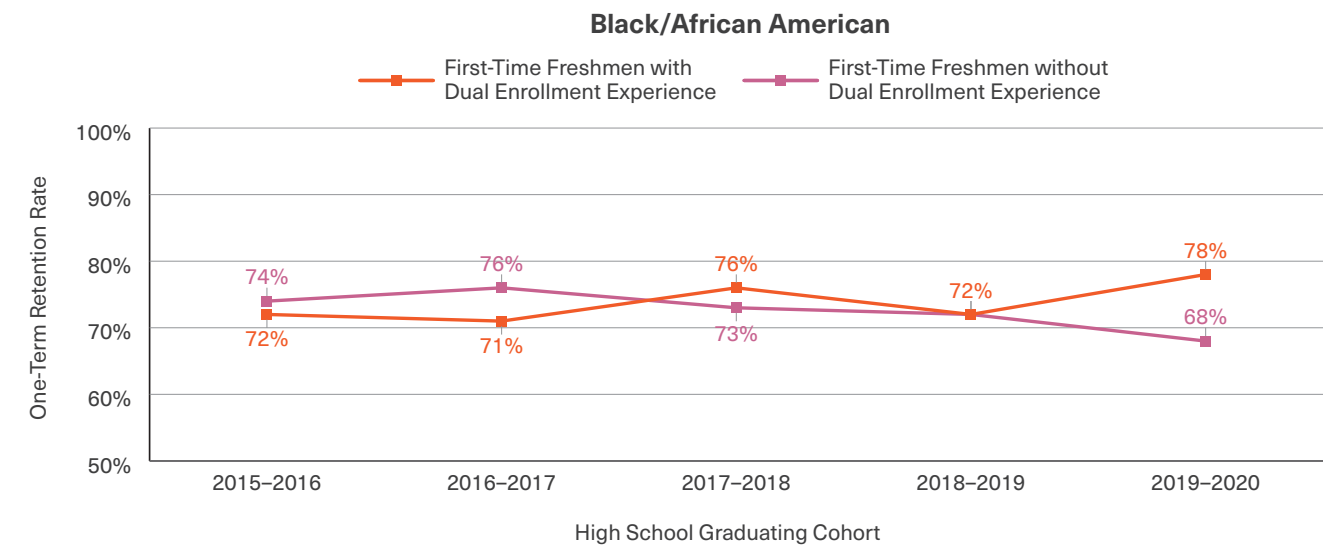
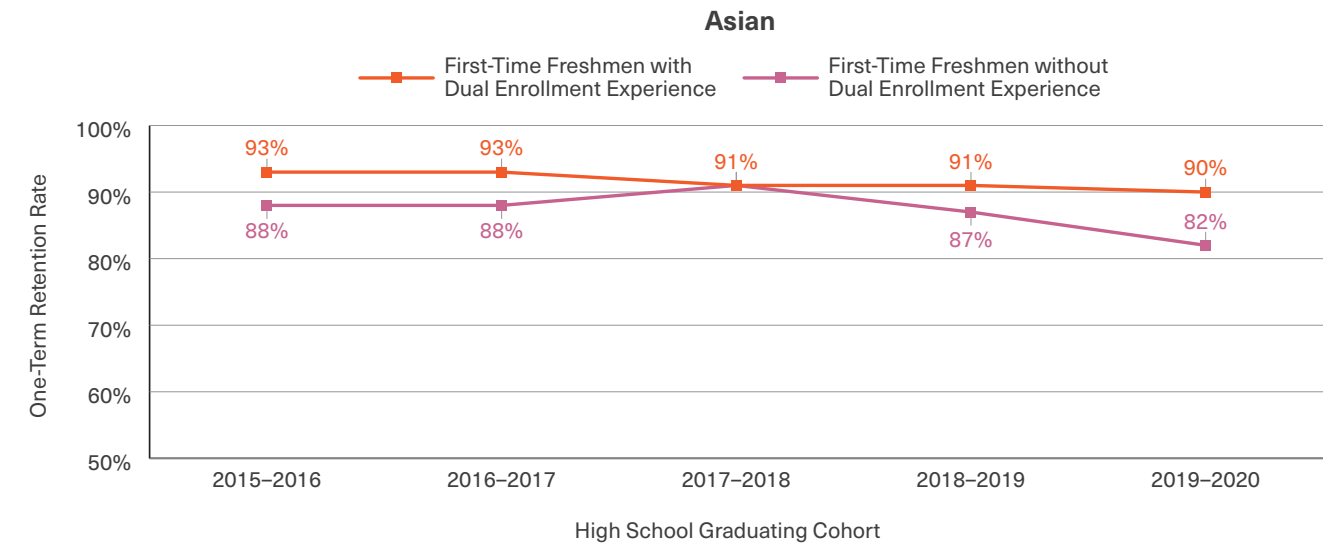
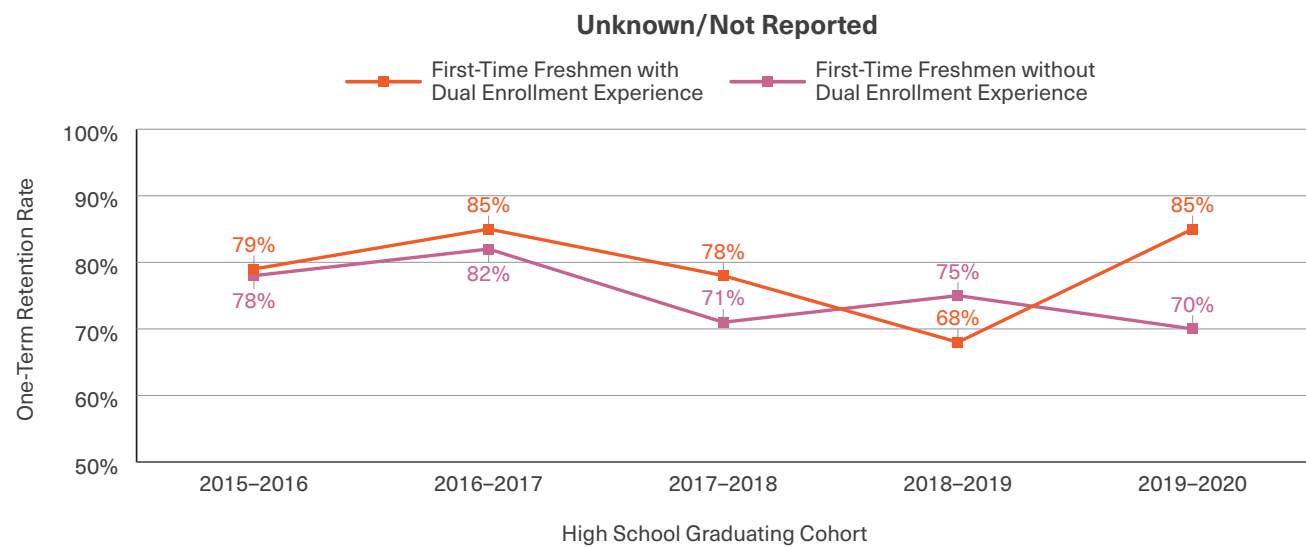
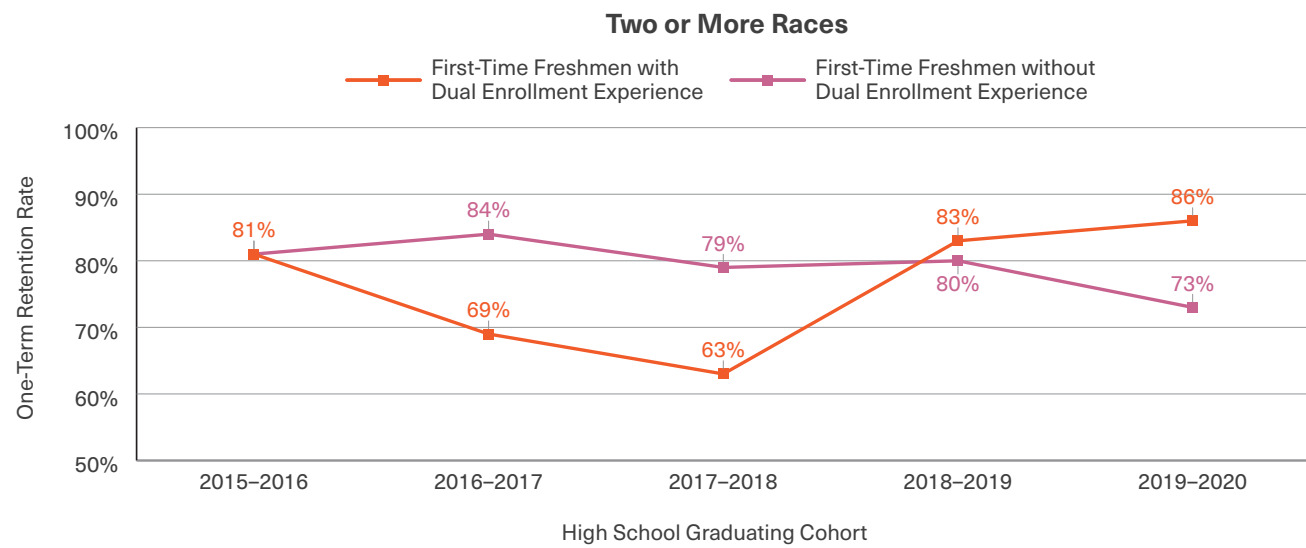
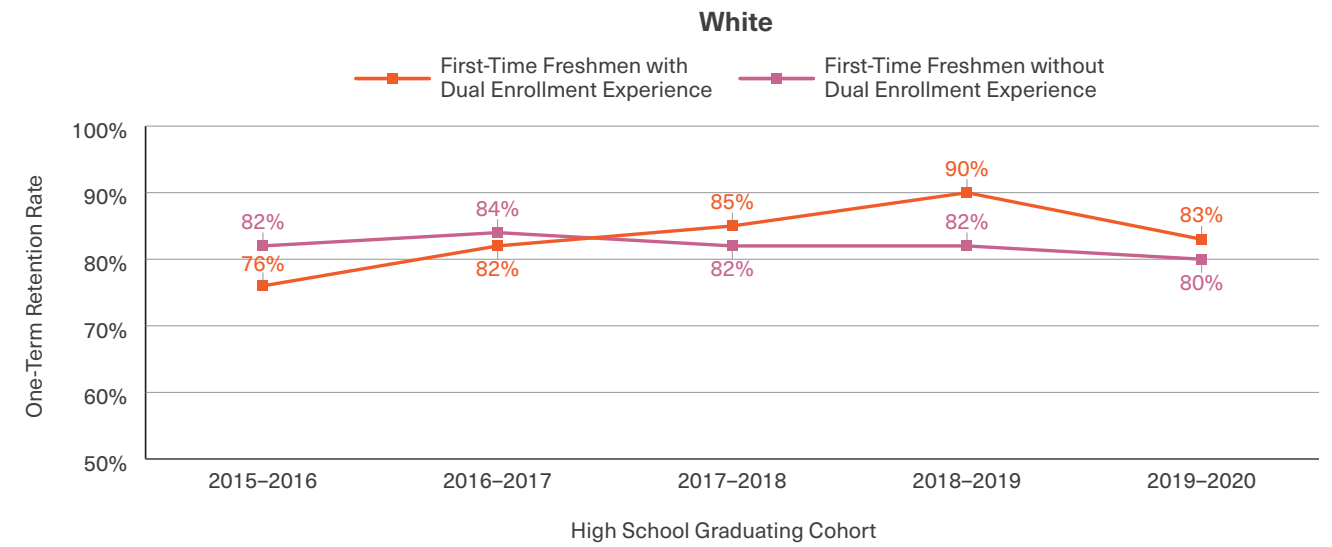
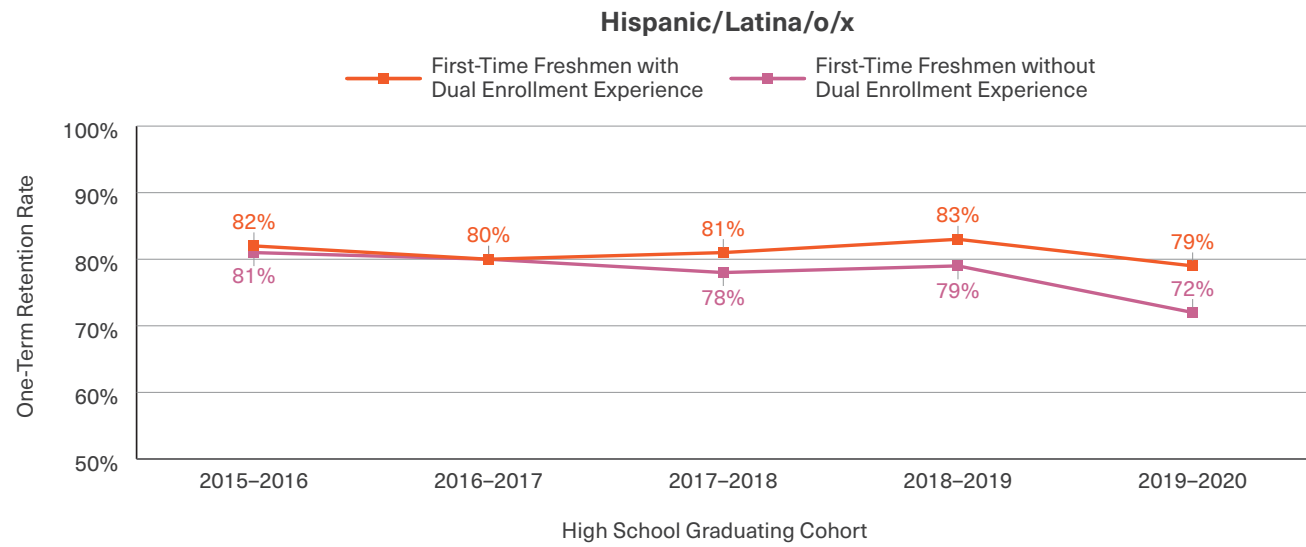


Figure 32 displays the one-term retention rates disaggregated by race/ethnicity. For Asian, Black/African American, and Hispanic/Latina/o/x students, one-term retention rates for the 2017–2018 graduating cohort did not vary much between those with and without dual enrollment experience. However, for students in those groups, a retention gap grew markedly for those who graduated during the pandemic. Asian, Black/African American, and Hispanic/Latina/o/x students who previously participated in dual enrollment and graduated high school during the pandemic had one-term retention rates that were 8, 20, and 7 percentage points higher (respectively) than their peers without dual enrollment experience.

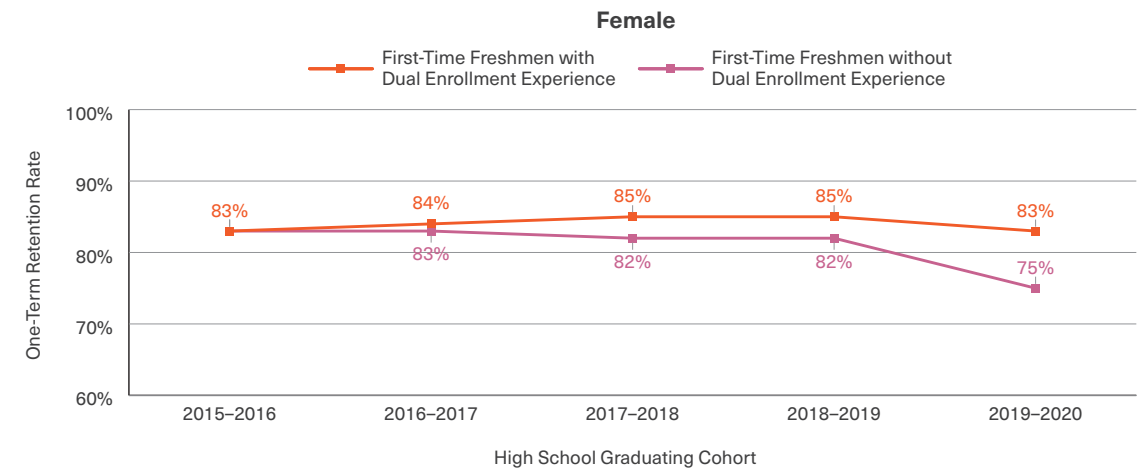
Figure 32. One-Term Retention Rates at California Community Colleges by Prior Dual Enrollment Participation and Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020)

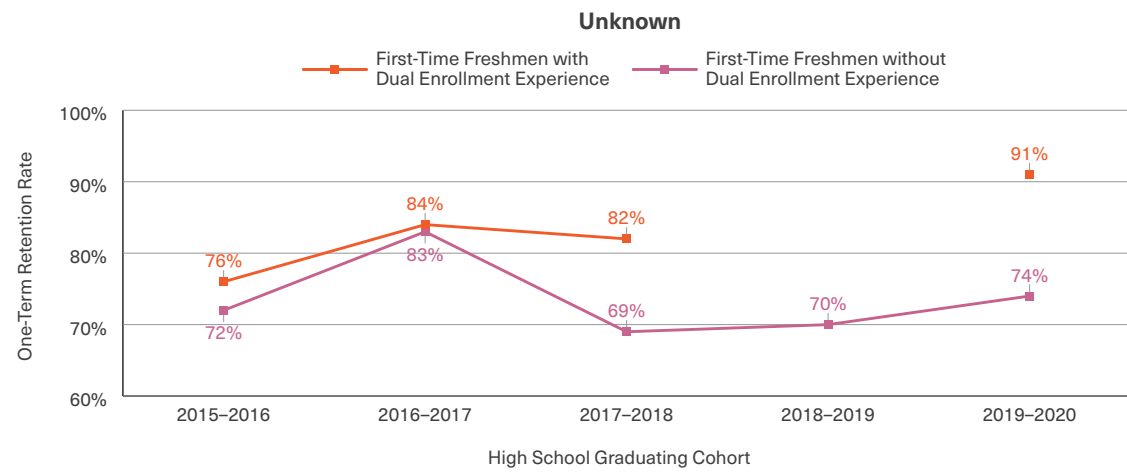
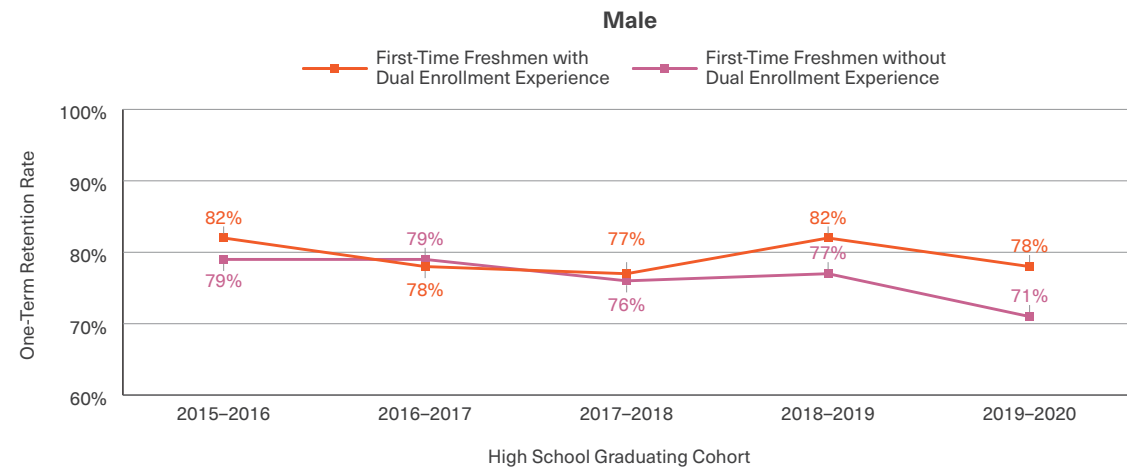




When looking at one-term retention rates for students with prior dual enrollment experience by gender, a similar pattern emerged (Figure 33). Gaps opened up over time between students who previously participated and those who did not, regardless of gender identity, and widened most significantly for the cohort graduating high school in 2019-2020. While all male and female students in that cohort experienced a drop in one-term retention, declines were less pronounced for those with dual enrollment experience. Notably, students from the 2019-2020 graduating cohort with unknown gender identities who previously participated in dual enrollment had the strongest rates of one-term persistence of all groups (91%) – their highest of all time – although this finding should again be interpreted with caution as there are not very many students in this category.

Figure 33. One-Term Retention Rates by Prior Dual Enrollment Participation and Gender (Graduating Cohorts, 2015-2016 – 2019-2020)





Note: Data suppressed if fewer than 10 students in a group

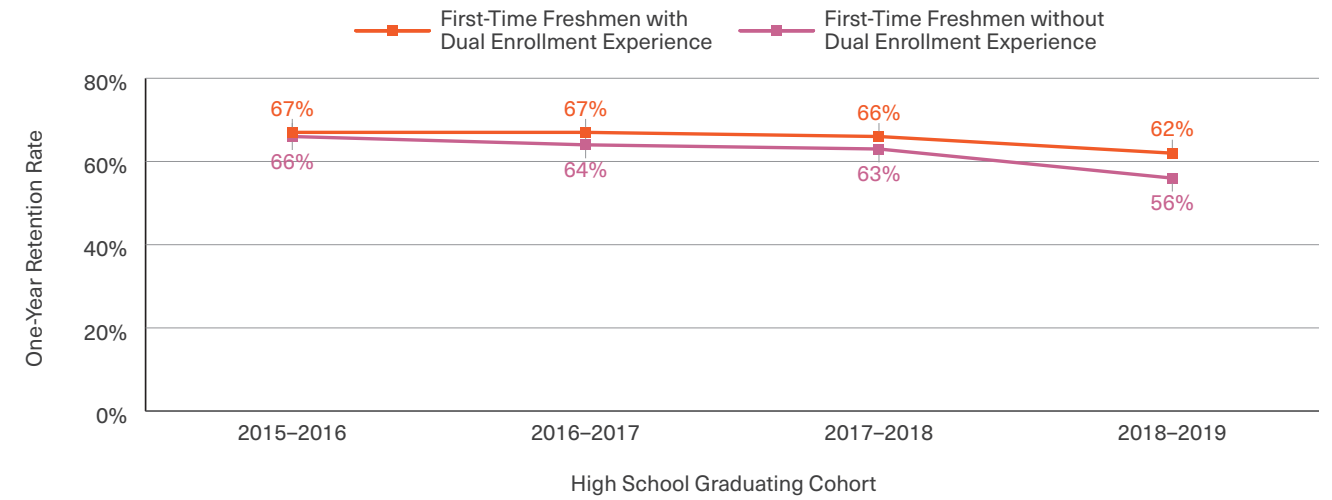
One-Year Retention Rates

For the purposes of this metric, we identified the percentage of first-time freshmen who were still enrolled at a CCC after one year, based on their prior dual enrollment participation. Again, we compared students with and without dual enrollment experience from partner high schools, regardless of what community college they attended after high school graduation.

Overall, one-year retention rates followed a similar pattern to our above findings on one-term retention. One-year retention rates for students who graduated from a partner high school with dual enrollment experience were relatively stable at around 67% prior to the 2018–2019 graduating cohort (Figure 34). However, students who did not previously participate in dual enrollment showed a modest decline in one-year retention rates over time, leading to a widening gap between those with and without dual enrollment experience from 2015–2016 to 2018–2019.

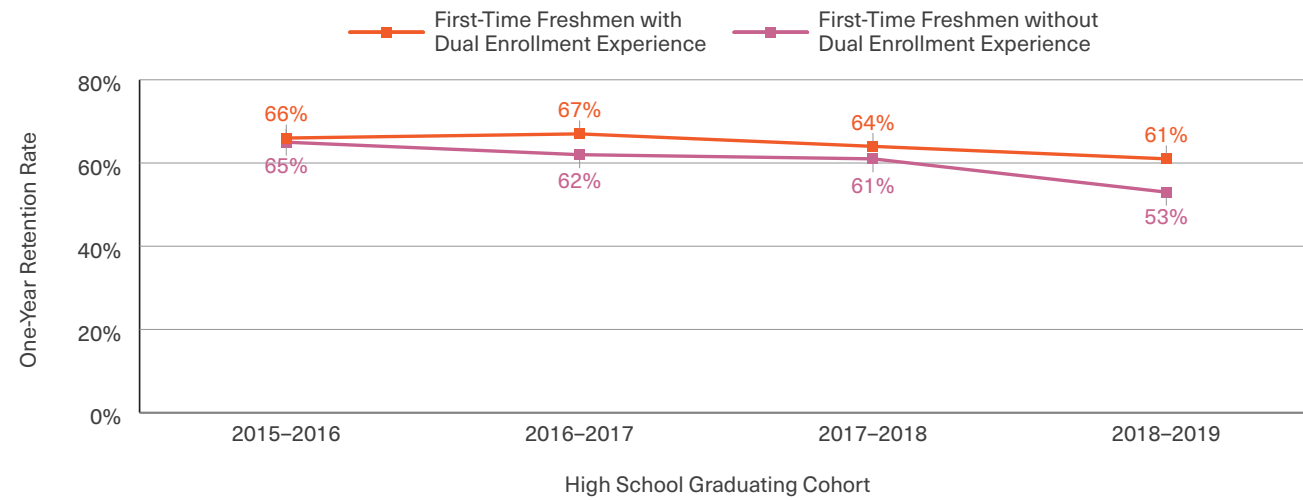
However, **the gap between students with dual enrollment experience and other first-time freshmen without this experience widened for the 2018–2019 graduating high school cohort whose first year in college was interrupted by the COVID-19 pandemic.** Since the data we received did not include the 2020–2021 academic year, there has not yet been sufficient time to examine the one-year enrollment patterns for high school cohorts graduating after 2019.

Figure 34. One-Year Retention Rates by Prior Dual Enrollment Participation (Graduating Cohorts, 2015–2016 – 2018–2019)



Among first-generation students who graduated from partnership high schools and subsequently enrolled in a California community college, those with dual enrollment experience had higher one-year retention rates than their peers who did not (Figure 35). For first-generation students who graduated in the 2018–2019 academic year, only 53% of those without dual enrollment experience were still enrolled one year after their first college term. In contrast, 61% of students who previously participated in dual enrollment were still enrolled after one year.

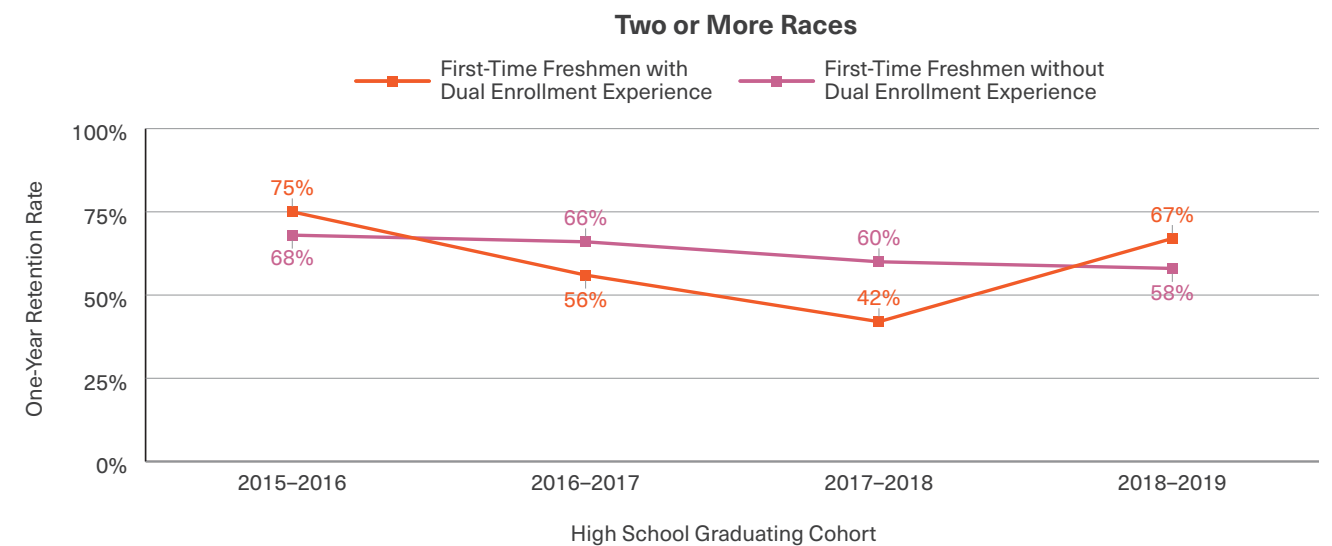
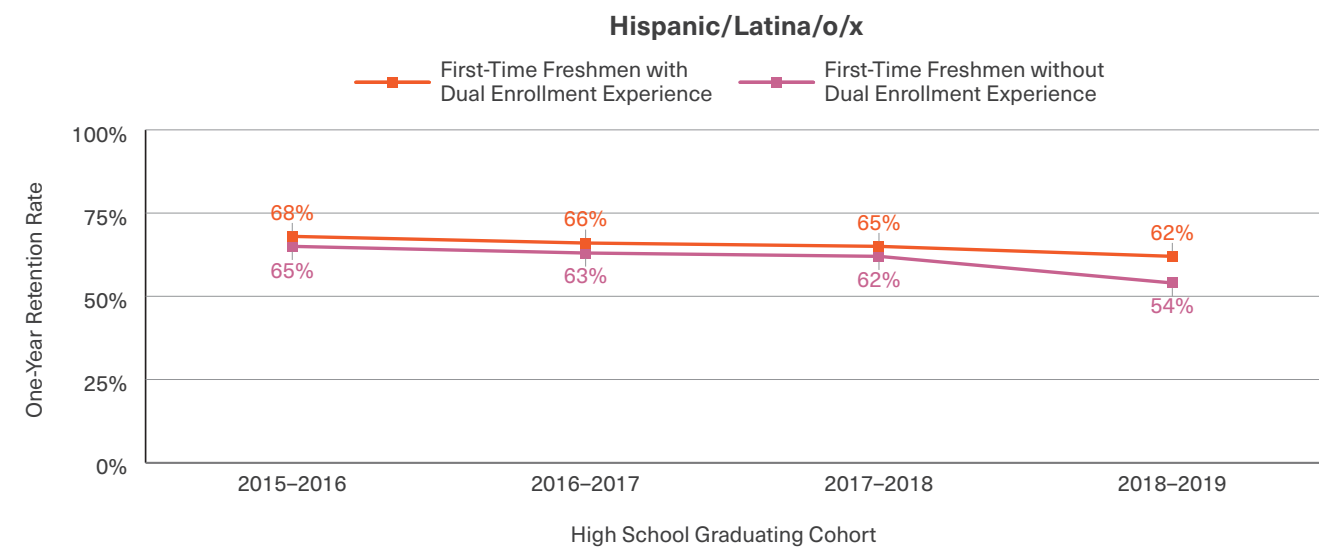
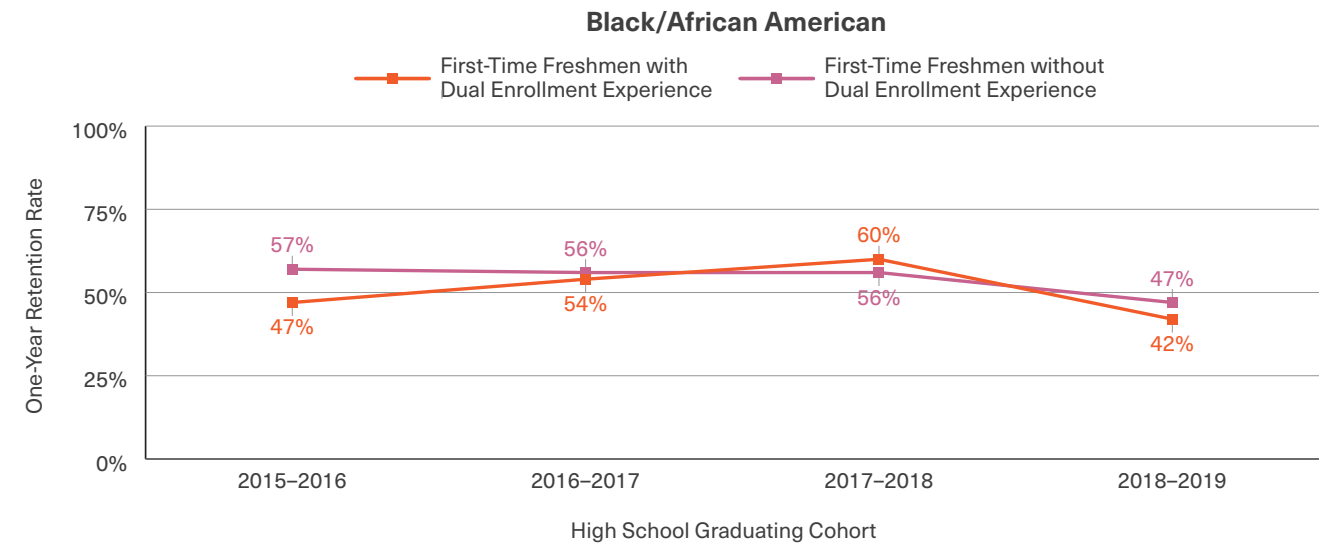
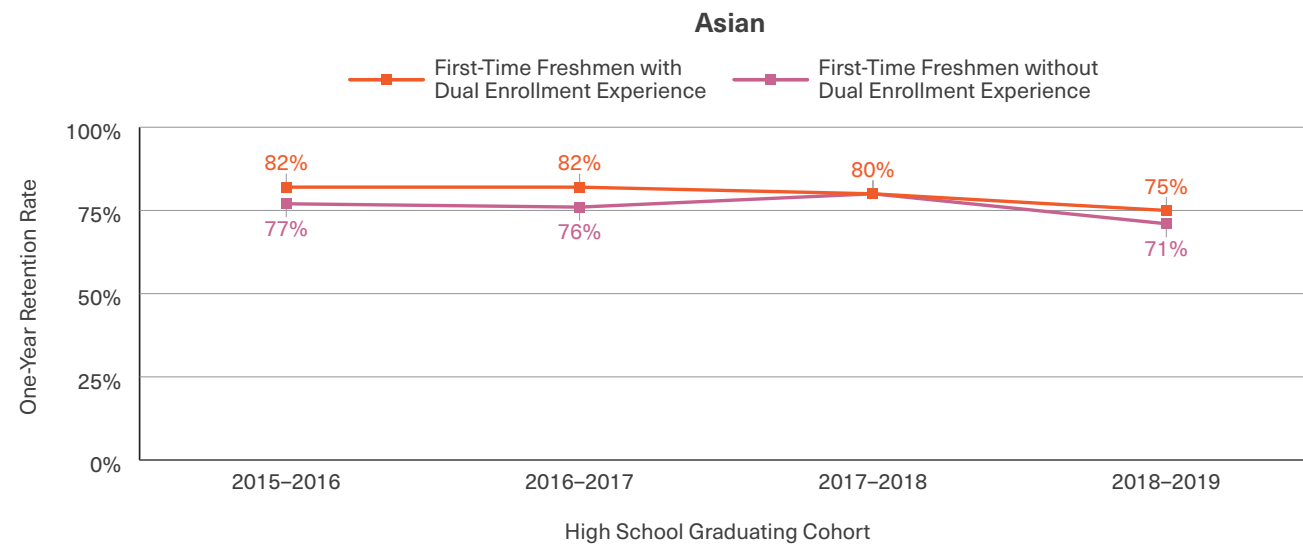
Figure 35. One-Year Retention Rates by Prior Dual Enrollment Participation and First-Generation Status (Graduating Cohorts, 2015–2016 – 2018–2019)

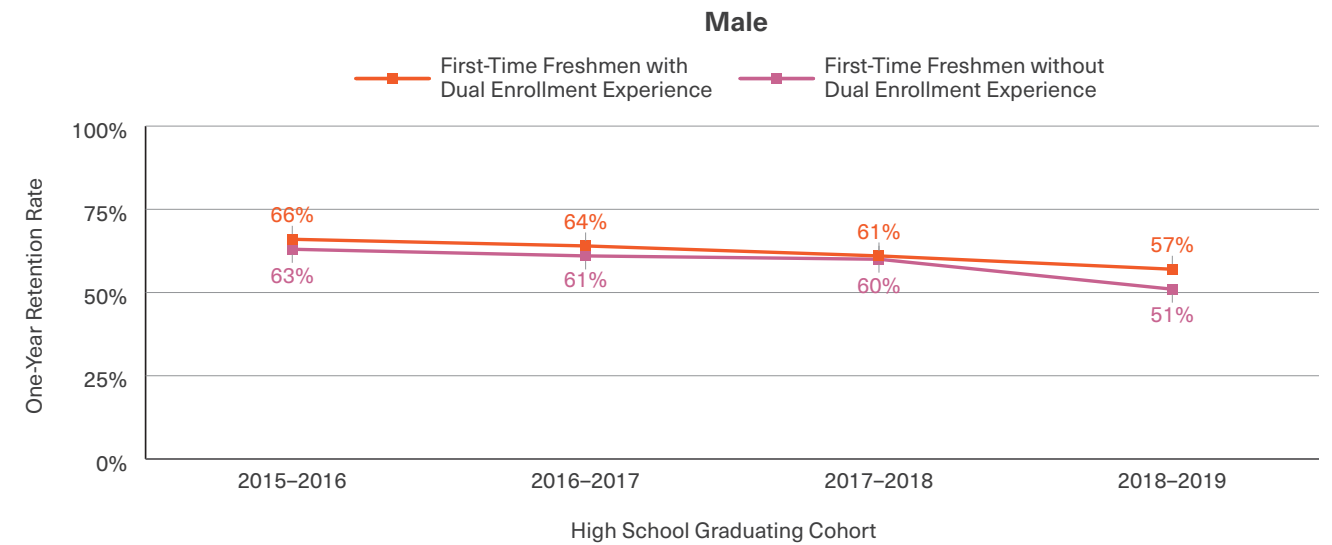
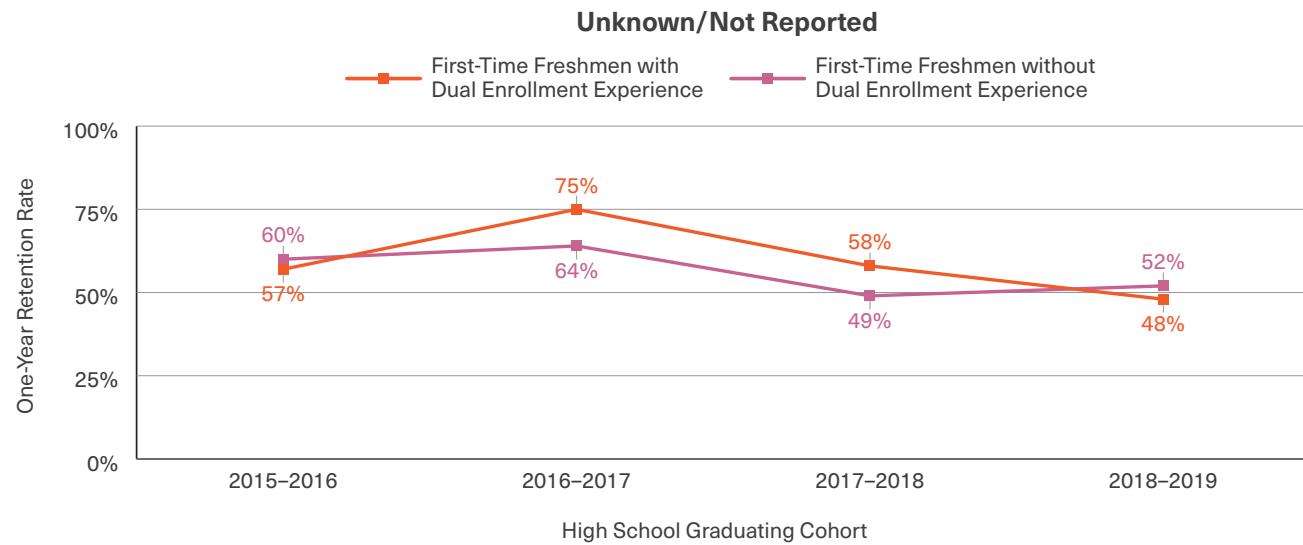


We also examined one-year retention rates among formerly dual enrolled students at partnership colleges by race/ethnicity (Figure 36). **Notably, Hispanic/Latina/o/x students with dual enrollment experience were more likely to remain enrolled in college after one year than their peers who did not participate**, although retention rates among cohorts dropped since 2015–2016. The retention rates for students with two or more races fluctuated widely between graduation cohorts because this category had fewer students. For example, while the number of dual enrolled students grew over time, there were only 30 students who identified with two or more races in the 2018–2019 graduating cohort.

However, retention rates among White students with dual enrollment experience rose from 61% among the 2015–2016 graduating cohort to 71% for the 2018–2019 graduating cohort. **Black/African American students also saw retention rates for those with dual enrollment experience rising from 47% for the 2015–2016 graduating cohort to 60% for the 2017–2018 graduating cohort. Unfortunately, this growth for Black/African American students was erased for the 2018–2019 graduating cohort**, where one-year retention rates for those with dual enrollment experience dropped to five percentage points below those without dual enrollment experience. The steep decline highlights the need for additional college support for this student group.

Figure 36. One-Year Retention Rates by Prior Dual Enrollment Participation and Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2018–2019)





When examining these rates by gender, students with dual enrollment experience had higher one-year retention rates in community college across all gender identities (Figure 37). At the same time, female students who graduated from partnership high schools tended to have higher retention rates than male students regardless of dual enrollment experience. This finding aligns with [research by the National Student Clearinghouse](#)¹⁸ showing that female students generally have stronger one-year retention compared to their male counterparts.

Among the 2018-2019 high school graduation cohort, 66% of female students who previously participated in dual enrollment were still enrolled one year later, compared to only 61% of female students without this experience. The one-year retention gap between students with and without dual enrollment experience was slightly wider for male students, with 57% of formerly dual enrolled male students remaining enrolled in a California community college after one year compared with only 51% of their peers. As with one-term retention, students with unknown gender appeared to have much higher rates of retention than their peers, although this finding should again be interpreted with caution as there were not many students in this category. Further, data was missing for students with unknown gender for the 2018-2019 graduating cohort, as there were fewer than 10 formerly dual enrolled students.

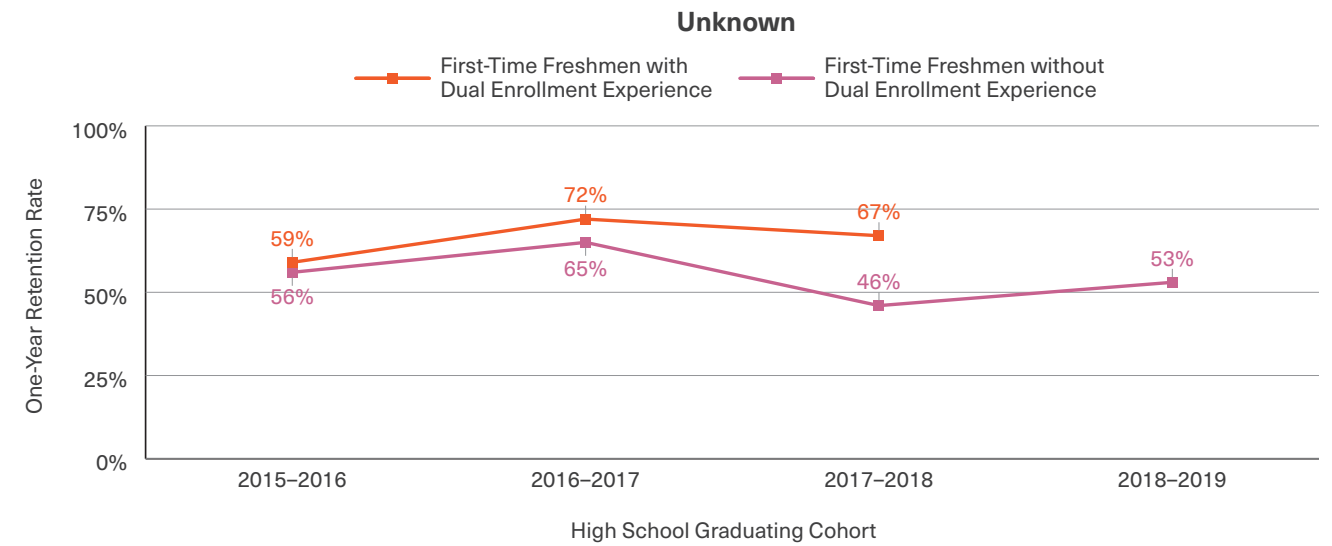
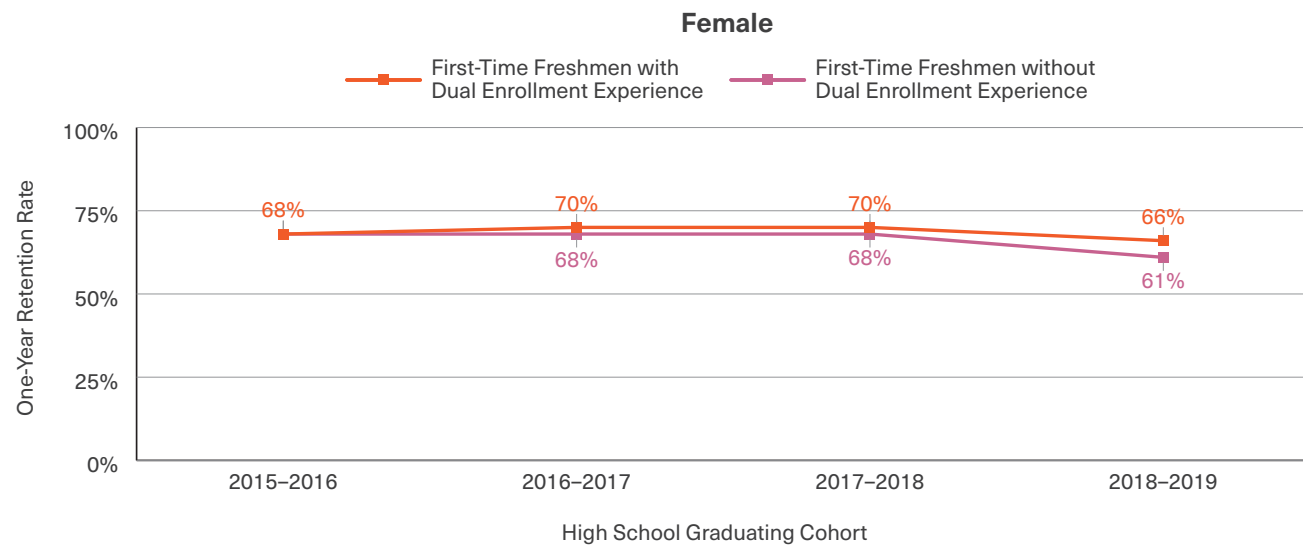


Figure 37. One-Year Retention Rates by Prior Dual Enrollment Participation and Gender (Graduating Cohorts, 2015-2016 – 2018-2019)



Note: Data suppressed if fewer than 10 students in a group

Limitations

The Cal-PASS Plus data are the most comprehensive intersegmental data source in California. However, not all the high schools in the *DE4EC* partnerships are members of Cal-PASS Plus. Therefore, information for these schools was not included in this round of research (see Appendix A for the list of partnerships excluded). Our access to data was limited to aggregate data. Since we did not have unitary data, we were not able to use statistical controls to adjust for selection bias. That is, students who choose to participate in dual enrollment may be different from their peers on a variety of characteristics. For example, while we can say that formerly dual enrolled students on average have higher course success rates than their non-dual-enrolled counterparts, we cannot necessarily say this difference was a direct result of their participation in a dual enrollment program. To address this issue in future research, we will attempt to look at starting GPA as a control for assessing dual enrollment impact on students' subsequent secondary and postsecondary outcomes.

¹⁸ <https://nscresearchcenter.org/wp-content/uploads/PersistenceRetention2022.pdf>

Conclusion



The positive results for dual enrolled students in the period leading up to *DE4EC*'s launch—particularly for participating first-generation, Black/African American, Hispanic/Latina/o/x students—suggest these 10 dual enrollment partnerships have a strong foundation for fostering equitable access and completion outcomes for students underrepresented in higher education. Students involved in these dual enrollment partnerships consistently outperformed their peers on measures such as high school GPA and graduation, college-going, and success and retention in the first year of college. For these students, dual enrollment was associated with higher success among indicators that all positively associate with students' ultimate desired outcome: credential and degree completion, transfer, and workplace success.

In addition, over the five years examined in this report, the number of students participating in dual enrollment at the partnership colleges grew steadily until 2020, when the COVID-19 pandemic began. Notably, as the number and diversity of dual enrolled students grew, these students' achievement of academic outcomes either held steady or increased. In some cases, the gap between dual enrolled and non-dual-enrolled students' performance has even grown.

While these results are overwhelmingly positive, there is still room to improve, specifically the numbers and proportions of Black/African American, Native American, and Native Hawaiian or Other Pacific Islander students participating in dual enrollment. It is critical to continue to examine the impact of the pandemic on these students' engagement and success.

Strong academic outcomes and engagement for dual enrolled students during the COVID-19 pandemic offer another area of investigation. In the coming months, we will explore changes in these same indicators for dual and non-dual-enrolled students from fall 2022 to spring 2023 because it is critical to monitor how participation and performance among students from historically underrepresented groups continue to be impacted by this unprecedented disruption.

Based on the positive results from this initial analysis, we anticipate continued growth within the partnership colleges in the number of underrepresented students with access to college courses in high school who maintain higher GPAs; graduate high school; and enter, persist, and complete college/university. We also hope that these results will inspire other dual enrollment partnerships to examine their own results to determine and document whether their programs are producing equitable access and success for students from groups that have been historically excluded from higher education.

Appendices

Appendix A: DE4EC Community College/ High School Partnerships

Table A1. DE4EC Partnerships

Partnership College	Partner School Districts and High Schools
Berkeley City	Berkeley Unified School District Emery Unified School District Oakland Unified School District
Compton	Compton Unified School District Lynwood Unified School District Paramount Unified School District
Contra Costa	West Contra Costa Unified School District
Cuyamaca	Grossmont Union High Unified School District Mountain Empire High School San Diego Unified School District
ELAC	Alhambra Unified School District Los Angeles Unified School District Montebello Unified School District
Fresno City	Aspen Ridge High School Big Picture High School Center for Advanced Research and Technology Central Unified School District Chawanakee Unified School District Clovis Unified School District Crescent View High School Fresno County Office of Education Fresno Unified School District Kerman Unified School District Madera Unified School District Visalia Unified School District Washington Unified School District West Park Charter Academy Yosemite Valley High School
Gavilan	Gilroy Unified School District Morgan Unified School District San Benito Unified School District
Hartnell	Gonzales Unified School District Monterey Peninsula Unified School District North Monterey County Unified School District Salinas Union High School District Soledad Unified School District South Monterey County Joint Union High School
Madera	Chawanakee Unified School District Golden Valley Unified School District Madera Unified School District Yosemite High School
Skyline	Jefferson Union High School San Mateo Union High School Sequoia Union High School South San Francisco Unified

Table A2. DE4EC Partners Missing Data from CalPASS Plus

Partnership College	Partner School District and High Schools
Cuyamaca	Mountain Empire High School District
	Aspen Ridge High School
	Big Picture High School
	Center for Advanced Research and Technology
Fresno City	Crescent View High School
	Fresno County Office of Education
	Valley Regional Occupational Program
	West Park Charter Academy
	Yosemite Valley High School
Gavilan	Morgan Hill Unified School District
Madera	Yosemite High School

Appendix B: DE4EC Average GPA

Table B1. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Berkeley City	2.75	2.97	2.98	3.02	3.00
Compton	2.60	2.51	2.80	2.82	3.03
Contra Costa	2.73	2.88	2.94	2.94	2.91
Cuyamaca	2.95	2.84	3.13	3.30	3.14
ELAC	2.84	2.90	2.93	2.94	2.97
Fresno City	2.79	2.88	2.81	2.88	3.05
Gavilan	3.14	3.11	3.10	3.21	3.02
Hartnell	2.99	3.10	3.08	3.09	3.13
Skyline	2.89	2.95	3.11	3.23	3.07
Dual Enrolled Students Overall	2.83	2.89	2.92	2.95	3.02
Non-Dual-Enrolled Students Overall	2.71	2.70	2.73	2.74	2.75

Table B2. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Berkeley City	2.75	2.97	2.98	3.02	3.00
Non-First Generation	2.93	3.18	2.98	3.12	3.11
First Generation	2.40	2.56	2.99	2.74	2.75
Compton	2.60	2.51	2.80	2.82	3.03
Non-First Generation	2.60	2.64	2.54	2.91	3.04
First Generation	2.60	2.48	2.84	2.79	3.03
Contra Costa	2.73	2.88	2.94	2.94	2.91
Non-First Generation	2.98	3.00	3.03	3.08	3.05
First Generation	2.62	2.83	2.88	2.87	2.81
Cuyamaca	2.95	2.84	3.13	3.30	3.14
Non-First Generation	2.85	3.09	3.19	3.48	3.07
First Generation	3.01	2.52	3.09	3.01	3.18

Table B2. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
ELAC	2.84	2.90	2.93	2.94	2.97
Non-First Generation	3.02	2.97	2.95	3.03	3.06
First Generation	2.82	2.89	2.93	2.92	2.95
Fresno City	2.79	2.88	2.81	2.88	3.05
Non-First Generation	2.94	3.00	2.95	3.05	3.16
First Generation	2.69	2.81	2.72	2.77	2.99
Gavilan	3.14	3.11	3.10	3.21	3.02
Non-First Generation	3.25	3.27	3.35	3.30	3.12
First Generation	2.92	2.77	2.71	3.06	2.82
Hartnell	2.99	3.10	3.08	3.09	3.13
Non-First Generation	3.12	3.08	3.17	3.17	3.21
First Generation	2.84	3.13	3.01	3.04	3.08
Skyline	2.89	2.95	3.11	3.23	3.07
Non-First Generation	2.96	2.99	3.21	3.32	3.11
First Generation	2.67	2.85	2.81	3.00	2.95
Dual Enrolled Students Overall	2.83	2.89	2.92	2.95	3.02
Non-First Generation	2.98	3.00	3.02	3.10	3.12
First Generation	2.78	2.86	2.88	2.89	2.97
Non-Dual-Enrolled Students Overall	2.71	2.70	2.73	2.74	2.75
Non-First Generation	2.89	2.86	2.92	2.93	2.95
First Generation	2.63	2.63	2.63	2.65	2.65

Table B3. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Berkeley City	2.75	2.97	2.98	3.02	3.00
American Indian or Alaska Native				4.00	
Asian	3.14	3.33	3.24	3.10	3.48
Black/African American	2.15	2.38	2.38	2.67	2.55
Hispanic/Latina/o/x	2.70	2.54	2.85	2.78	2.90
Native Hawaiian or Other Pacific Islander	2.85		1.42		2.04
Two or More Races	2.88	3.14	3.17	3.16	3.32
Unknown	1.24		2.57	3.63	3.01
White	3.56	3.51	3.41	3.45	3.42
Compton	2.60	2.51	2.80	2.82	3.03
American Indian or Alaska Native			1.85		3.35
Asian				2.30	3.73
Black/African American	2.18	2.30	2.60	2.84	2.83
Hispanic/Latina/o/x	2.62	2.53	2.82	2.82	3.05
Native Hawaiian or Other Pacific Islander		2.11	1.18		3.02
Two or More Races		3.39		2.13	2.46

Table B3. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Unknown	2.67				3.50
White	1.42	2.50	3.00	2.92	2.74
Contra Costa	2.73	2.88	2.94	2.94	2.91
American Indian or Alaska Native		3.07			3.74
Asian	3.32	3.10	3.26	3.29	3.29
Black/African American	2.56	2.61	2.83	2.59	2.71
Hispanic/Latina/o/x	2.57	2.84	2.82	2.85	2.80
Native Hawaiian or Other Pacific Islander	3.39	2.71	3.07	2.67	2.83
Two or More Races	3.44	3.77	2.03	2.80	2.64
Unknown	2.71	1.84	3.46	2.40	3.94
White	2.98	3.15	2.82	3.37	3.15
Cuyamaca	2.95	2.84	3.13	3.30	3.14
American Indian or Alaska Native					2.32
Asian		3.00	2.84	3.80	3.55
Black/African American	2.89	3.53	3.33	3.09	3.44
Hispanic/Latina/o/x	2.97	2.55	3.17	3.18	3.16
Native Hawaiian or Other Pacific Islander					
Two or More Races	2.64	3.41	3.45	3.07	
Unknown		3.51			
White	3.17	2.80	2.63	3.51	2.02
ELAC	2.84	2.90	2.93	2.94	2.97
American Indian or Alaska Native	3.16	2.07	3.51	2.92	3.57
Asian	3.36	3.59	3.38	3.33	3.49
Black or African American	3.13	2.98	2.83	2.69	2.51
Hispanic/Latina/o/x	2.82	2.88	2.92	2.92	2.94
Native Hawaiian or Other Pacific Islander	2.04		3.54		
Two or More Races	2.28	3.43	2.81	3.94	3.16
Unknown	2.92	2.55	2.99	2.56	2.84
White	3.21	3.28	2.97	3.02	2.94
Fresno City	2.79	2.88	2.81	2.88	3.05
American Indian or Alaska Native	2.09	3.19	2.89	2.64	2.91
Asian	3.12	3.21	2.94	3.19	3.28
Black/African American	2.65	2.57	2.58	2.72	2.92
Hispanic/Latina/o/x	2.67	2.76	2.70	2.74	2.98
Native Hawaiian or Other Pacific Islander	3.83	3.11	3.27	2.99	3.18
Two or More Races	3.27	2.57	2.89	3.21	3.78
Unknown	2.97	3.30	3.09	3.12	3.16
White	3.14	3.08	3.13	3.26	3.23
Gavilan	3.14	3.11	3.10	3.21	3.02
American Indian or Alaska Native			2.29	3.10	
Asian	3.60	3.34	3.53	3.56	
Black/African American	3.04	1.80	3.23	3.08	
Hispanic/Latina/o/x	3.00	2.97	2.90	3.05	3.01

Table B3. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' Race/Ethnicity (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Native Hawaiian or Other Pacific Islander	3.36			2.91	
Two or More Races	3.48		3.03	3.51	
Unknown	3.02	3.07	2.32	2.74	
White	3.26	3.30	3.32	3.39	3.06
Hartnell	2.99	3.10	3.08	3.09	3.13
American Indian or Alaska Native			3.14	3.52	
Asian	3.34	3.16	3.33	3.13	3.40
Black/African American	2.40			2.67	2.35
Hispanic/Latina/o/x	2.89	3.12	3.00	3.08	3.09
Native Hawaiian or Other Pacific Islander		1.88		3.20	2.63
Two or More Races	3.26		3.21	3.67	3.03
Unknown	3.23	3.09	3.24	3.46	3.20
White	3.13	3.07	3.29	3.15	3.46
Skyline	2.89	2.95	3.11	3.23	3.07
American Indian or Alaska Native			3.44		1.99
Asian	3.03	3.22	3.43	3.45	3.22
Black/African American	2.48	2.55	2.27	2.51	2.48
Hispanic/Latina/o/x	2.61	2.48	2.43	3.01	2.89
Native Hawaiian or Other Pacific Islander	2.50	1.98	1.73	2.68	2.61
Two or More Races	2.82	3.01	2.98	3.16	3.07
Unknown	11.92		11.01	3.25	3.00
White	3.00	2.81	3.28	3.36	3.14
Dual Enrolled Students Overall	2.83	2.89	2.92	2.95	3.02
American Indian or Alaska Native	2.50	2.23	2.95	2.83	3.08
Asian	3.12	3.31	3.30	3.31	3.34
Black/African American	2.69	2.65	2.65	2.72	2.76
Hispanic/Latina/o/x	2.79	2.85	2.87	2.90	2.97
Native Hawaiian or Other Pacific Islander	2.56	2.46	3.01	2.93	2.94
Two or More Races	2.87	3.03	3.00	3.26	3.19
Unknown	3.02	3.23	3.16	3.13	3.16
White	3.15	3.11	3.16	3.27	3.21
Non-Dual-Enrolled Students	2.71	2.70	2.73	2.74	2.75
American Indian or Alaska Native	2.68	2.56	2.77	2.66	2.86
Asian	3.11	3.12	3.18	3.20	3.21
Black/African American	2.57	2.56	2.57	2.57	2.57
Hispanic/Latina/o/x	2.61	2.61	2.63	2.64	2.64
Native Hawaiian or Other Pacific Islander	2.74	2.62	2.70	2.66	2.68
Two or More Races	2.99	2.90	2.98	3.00	3.01
Unknown	2.95	2.96	2.93	3.06	3.05
White	3.04	3.02	3.04	3.09	3.11

Note: Data suppressed if fewer than 10 students in a group.

Table B4. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' Gender (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Berkeley City	2.75	2.97	2.98	3.02	3.00
Female	3.14	3.22	3.12	3.17	3.05
Male	2.49	2.75	2.81	2.88	2.94
Unknown	*		*		
Compton	2.60	2.51	2.80	2.82	3.03
Female	2.76	2.58	2.98	2.99	3.16
Male	2.30	2.37	2.51	2.58	2.77
Unknown					
Contra Costa	2.73	2.88	2.94	2.94	2.91
Female	2.86	2.93	3.00	2.97	3.03
Male	2.55	2.83	2.83	2.90	2.77
Unknown	*	*	*		
Cuyamaca	2.95	2.84	3.13	3.30	3.14
Female	3.12	2.80	3.14	3.53	3.20
Male	*	2.87	3.11	2.98	3.03
Unknown		*			
ELAC	2.84	2.90	2.93	2.94	2.97
Female	2.93	2.97	3.03	2.99	3.07
Male	2.70	2.79	2.77	2.84	2.80
Unknown		*	2.99	*	*
Fresno City	2.79	2.88	2.81	2.88	3.05
Female	2.98	2.96	2.99	3.03	3.17
Male	2.62	2.81	2.63	2.73	2.92
Unknown	*				
Gavilan	3.14	3.11	3.10	3.21	3.02
Female	3.17	3.24	3.17	3.23	*
Male	3.10	2.88	2.95	3.18	*
Unknown	*	*	*	*	
Hartnell	2.99	3.10	3.08	3.09	3.13
Female	3.02	3.18	3.12	3.16	3.21
Male	2.83	2.98	2.86	2.95	2.96
Unknown	3.23	3.09	3.24	*	3.20
Skyline	2.89	2.95	3.11	3.23	3.07
Female	3.07	3.12	3.29	3.27	3.17
Male	2.69	2.79	2.87	3.20	2.96
Unknown	*	*	*	3.40	3.05
Dual Enrolled Students Overall	2.83	2.89	2.92	2.95	3.02
Female	2.94	2.96	3.04	3.04	3.12
Male	2.68	2.78	2.74	2.83	2.87
Unknown	3.29	3.09	3.25	3.29	3.19

Table B4. Average High School GPA upon High School Graduation for Dual Enrolled Students by Partnership College and Students' Gender (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
Non-Dual-Enrolled Students	2.71	2.70	2.73	2.74	2.75
Female	2.83	2.82	2.86	2.87	2.89
Male	2.59	2.59	2.60	2.62	2.62
Unknown	3.13	2.72	2.79	3.15	3.00

Notes: Some (not all) partnership colleges reported student records of unknown gender. Those that did not report unknown numbers have blank results.
*Data suppressed if fewer than 10 students in a group.

Appendix C: DE4EC College Credentials Completed upon High School Graduation

Table C1. Dual Enrolled Student Completion of College Credentials upon High School Graduation by Partnership College (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

Partnership College	Associate's Degrees Awarded	Certificates Awarded
Berkeley City	0	0
Compton	35	32
Contra Costa	144	168
Cuyamaca	0	0
ELAC	2	25
Fresno City	53	1
Gavilan	79	80
Hartnell	0	0
Madera	0	0
Skyline	0	0
Total	313	306

Table C2. Progression of Dual Enrolled Student Completion of College Credentials upon High School Graduation by Partnership College and Year (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	Associate's Degrees Awarded	Certificates Awarded
Compton	35	32
2015–2016	0	0
2016–2017	0	0
2017–2018	0	0
2018–2019	19	26
2019–2020	16	6
Contra Costa	144	168
2015–2016	27	24
2016–2017	22	30
2017–2018	36	43
2018–2019	34	40
2019–2020	25	31
ELAC	2	25
2015–2016	1	0
2016–2017	0	1
2017–2018	0	7
2018–2019	0	5
2019–2020	1	12
Fresno City	53	1
2015–2016	2	0
2016–2017	2	0
2017–2018	1	0
2018–2019	15	0
2019–2020	33	1
Gavilan	79	80
2015–2016	8	10
2016–2017	17	16
2017–2018	27	27
2018–2019	27	27
2019–2020	0	0
Total	313	306

Table C3. Dual Enrolled Student Completion of College Credentials upon High School Graduation by Partnership College and Students' First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

Partnership College	Associate's Degrees Awarded	Certificates Awarded
Compton	35	32
Non-First Generation	6	8
First Generation	29	24
Contra Costa	144	168
Non-First Generation	61	67
First Generation	83	101
ELAC	2	25
Non-First Generation	2	5
First Generation	0	20
Fresno City	53	1
Non-First Generation	23	0
First Generation	30	1
Gavilan	79	80
Non-First Generation	63	64
First Generation	16	16
Total	313	306

Table C4. Dual Enrolled Student Completion of College Credentials upon High School Graduation by Partnership College and Students' Gender (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

Partnership College	Associate's Degrees Awarded	Certificates Awarded
Compton	35	32
Female	25	17
Male	10	15
Unknown	0	0
Contra Costa	144	168
Female	86	104
Male	58	64
Unknown	0	0
ELAC	2	25
Female	1	10
Male	1	15
Unknown	0	0
Fresno City	53	1
Female	33	1
Male	20	0
Unknown	0	0

Table C4. Dual Enrolled Student Completion of College Credentials upon High School Graduation by Partnership College and Students' Gender (Graduating Cohorts, 2015-2016 – 2019-2020 Combined) (continued)

Partnership College	Associate's Degrees Awarded	Certificates Awarded
Gavilan	79	80
Female	46	47
Male	33	33
Unknown	0	0
Total	313	306

Appendix D: DE4EC College Attendance after High School Graduation

Table D1. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Institution Type (Graduating Cohorts 2015–2016 – 2019–2020 Combined)

	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California
Non-Dual-Enrolled Students	85,571	6,628			2,014
Dual Enrolled Students	10,381	3,548	341	475	1,771
Grand Total	95,952	10,176	341	475	3,785

Note: The data received from CalPASS did not include this information for non-dual-enrolled students.

Table D2. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Partnership College and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020)

Partnership College	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California	Total
Berkeley City	336	53	14	80	88	571
2015–2016	66	8	1	18	15	108
2016–2017	66	8	2	18	11	105
2017–2018	77	14	5	9	26	131
2018–2019	64	11	5	21	16	117
2019–2020	63	12	1	14	20	110
Compton	695	375	20	22	122	1,234
2015–2016	76	33	2	1	22	134
2016–2017	119	37	6	5	11	178
2017–2018	163	86	1	2	17	269
2018–2019	194	92	5	5	34	330
2019–2020	143	127	6	9	38	323
Contra Costa	973	233	31	56	265	1,558
2015–2016	185	15	4	8	37	249
2016–2017	248	32	4	7	52	343

Table D2. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Partnership College and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California	Total
2017–2018	195	64	6	13	53	331
2018–2019	203	58	9	9	66	345
2019–2020	142	64	8	19	57	290
Cuyamaca	79	36	2	12	17	146
2015–2016	11	8		2	1	22
2016–2017	18	8		2	3	31
2017–2018	16	7	1	2	4	30
2018–2019	15	7	1	4	5	32
2019–2020	19	6		2	4	31
ELAC	4,407	1461	107	82	714	6,771
2015–2016	758	161	9	11	144	1,083
2016–2017	812	295	16	16	143	1,282
2017–2018	980	389	22	23	149	1,563
2018–2019	883	306	24	14	131	1,358
2019–2020	974	310	36	18	147	1,485
Fresno City	1,641	778	57	69	171	2,716
2015–2016	244	70	7	5	21	347
2016–2017	295	110	9	14	29	457
2017–2018	373	179	12	19	37	620
2018–2019	415	177	17	12	34	655
2019–2020	314	242	12	19	50	637
Gavilan	249	126	28	46	75	524
2015–2016	53	22	5	10	13	103
2016–2017	59	39	5	11	20	134
2017–2018	63	31	7	15	24	140
2018–2019	66	31	11	10	18	136
2019–2020	8	3				11
Hartnell	958	330	17	39	156	1,500
2015–2016	57	10	2	4	5	78
2016–2017	84	20	1	5	12	122
2017–2018	116	56	1	2	21	196
2018–2019	389	120	5	11	49	574
2019–2020	312	124	8	17	69	530
Skyline	1,043	156	65	69	163	1,496
2015–2016	197	28	14	6	27	272
2016–2017	196	16	11	3	32	258
2017–2018	178	22	14	16	39	269
2018–2019	195	33	13	23	25	289

Table D2. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Partnership College and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020) (continued)

Partnership College	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California	Total
2019–2020	277	57	13	21	40	408
Non-Dual-Enrolled Students	85,571	6,628			2,014	94,213
2015–2016	18,689	1,383			919	20,991
2016–2017	18,808	1,517			758	21,083
2017–2018	18,768	1,472			180	20,420
2018–2019	17,267	1,512			157	18,936
2019–2020	12,039	744				12,783
Total	95,952	10,176	341	475	3,785	110,729

Table D3. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Partnership College and Institution Type (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

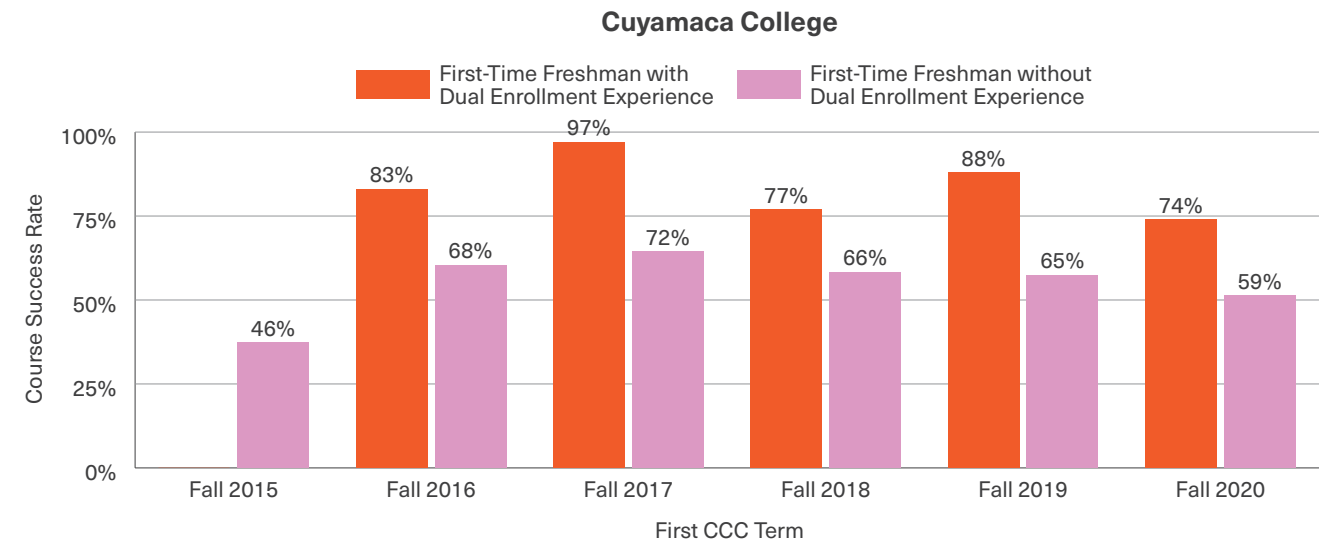
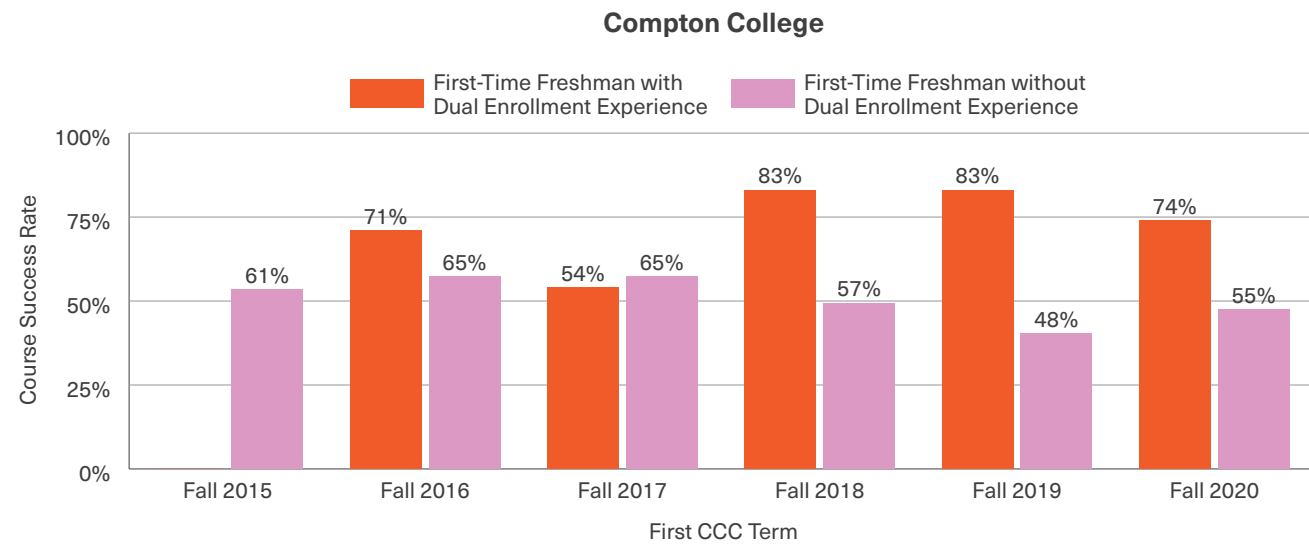
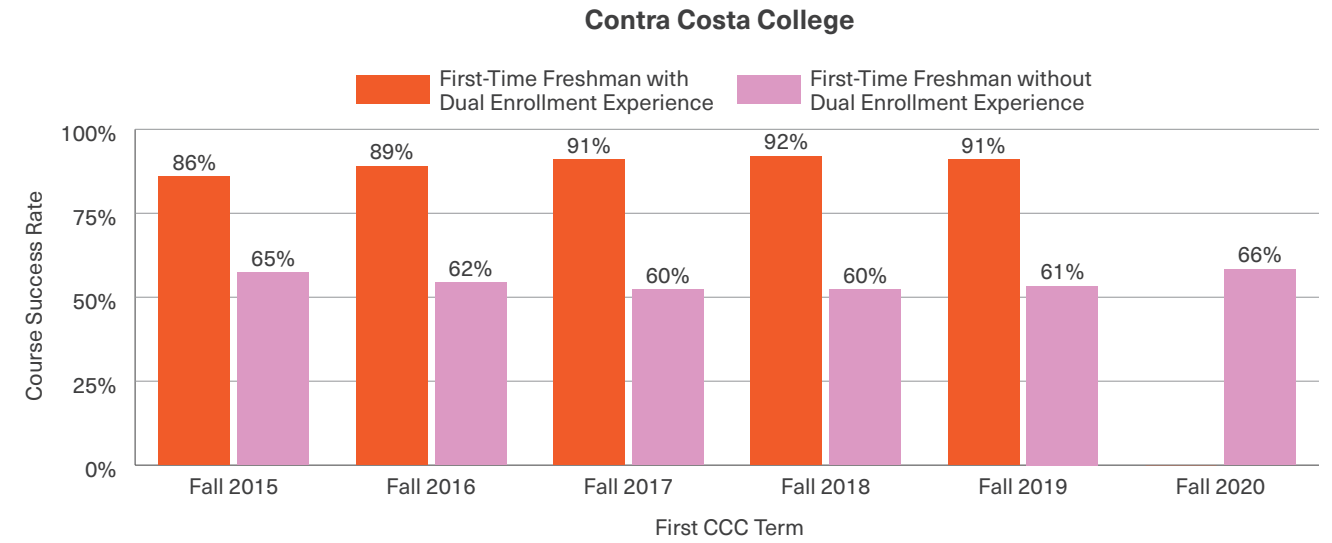
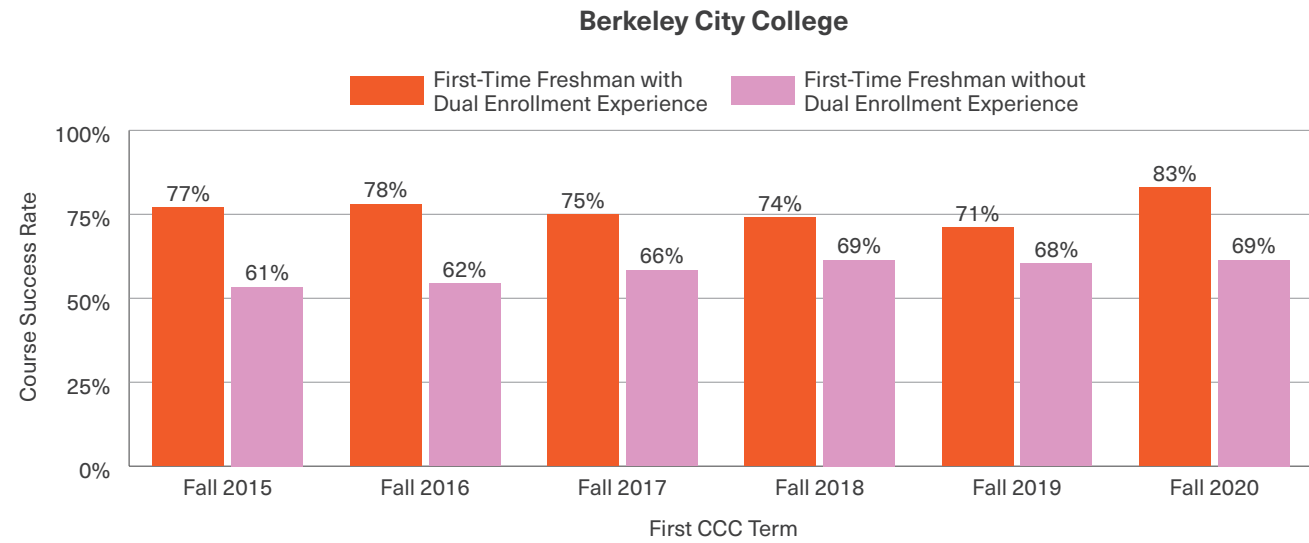
Partnership College	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California	Overall Total
Berkeley City	336	53	14	80	88	571
Compton	695	375	20	22	122	1,234
Contra Costa	973	233	31	56	265	1,558
Cuyamaca	79	36	2	12	17	146
ELAC	4,407	1,461	107	82	714	6,771
Fresno City	1,641	778	57	69	171	2,716
Gavilan	249	126	28	46	75	524
Hartnell	958	330	17	39	156	1,500
Skyline	1,043	156	65	69	163	1,496
Non-Dual-Enrolled Students	85,571	6,628			2,014	94,213
Total	95,952	10,176	341	475	3,785	110,729

Table D3. Postsecondary Enrollment among Dual Enrolled Students within One Year of High School Graduation by Partnership College and Institution Type and Students' First-Generation Status (Graduating Cohorts, 2015–2016 – 2019–2020 Combined)

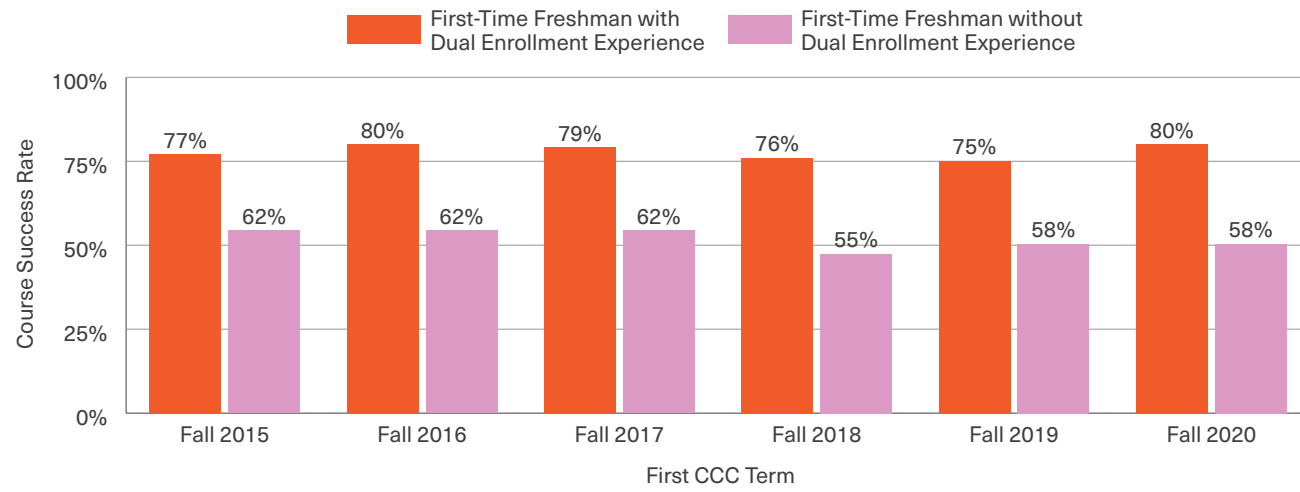
Partnership College	California Community College	California State University	In-State Private College/University	Out-of-State College/University	University of California	Overall Total
Berkeley City	336	53	14	80	88	571
Non-First Generation	209	41	12	67	75	404
First Generation	127	12	2	13	13	167
Compton	695	375	20	22	122	1,234
Non-First Generation	162	79	6	10	33	290
First Generation	533	296	14	12	89	944
Contra Costa	973	233	31	56	265	1,558
Non-First Generation	325	86	15	35	125	586
First Generation	648	147	16	21	140	972
Cuyamaca	79	36	2	12	17	146
Non-First Generation	39	20	2	10	8	79
First Generation	40	16		2	9	67
ELAC	4,407	1,461	107	82	714	6,771
Non-First Generation	838	269	42	22	178	1,349
First Generation	3,569	1,192	65	60	536	5,422
Fresno City	1,641	778	57	69	171	2,716
Non-First Generation	620	319	41	49	95	1,124
First Generation	1,021	459	16	20	76	1,592
Gavilan	249	126	28	46	75	524
Non-First Generation	141	86	20	37	61	345
First Generation	108	40	8	9	14	179
Hartnell	958	330	17	39	156	1,500
Non-First Generation	406	151	11	30	67	665
First Generation	552	179	6	9	89	835
Skyline	1,043	156	65	69	163	1,496
Non-First Generation	698	112	53	59	127	1,049
First Generation	345	44	12	10	36	447
Non-Dual-Enrolled Students	85,571	6,628			2,014	94,213
Non-First Generation	32,094	1,817			1,002	34,913
First Generation	53,477	4,811			1,012	59,300
Total	95,952	10,176	341	475	3,785	110,729

Appendix E: DE4EC Course Success Rates in First Year after High School Graduation

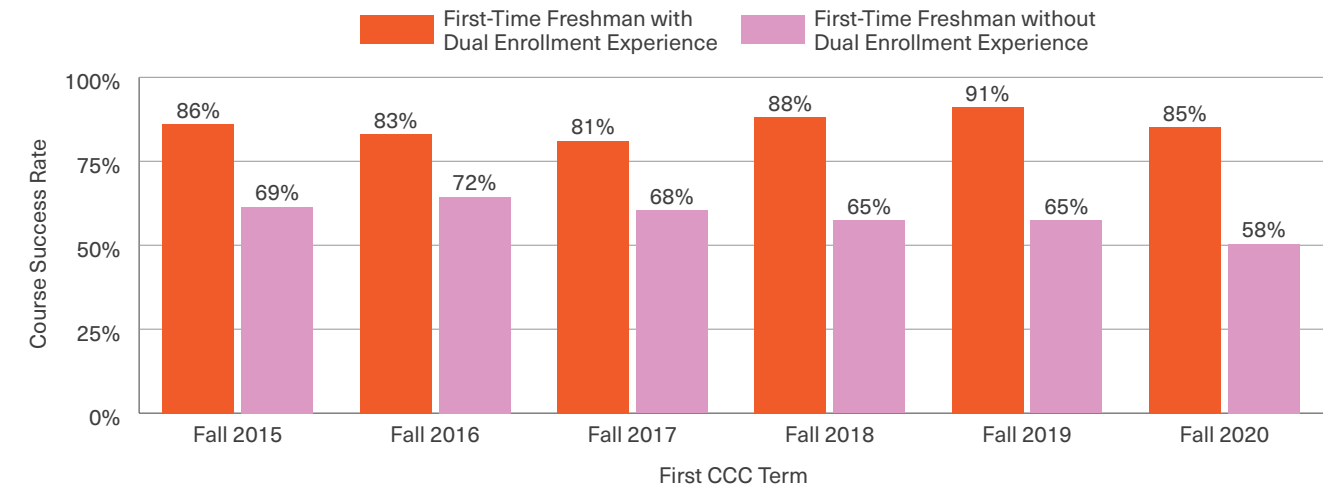
Figure E1. First Semester Course Success Rates by Prior Dual Enrollment Participation and Partnership College (Fall 2015 – Fall 2020)



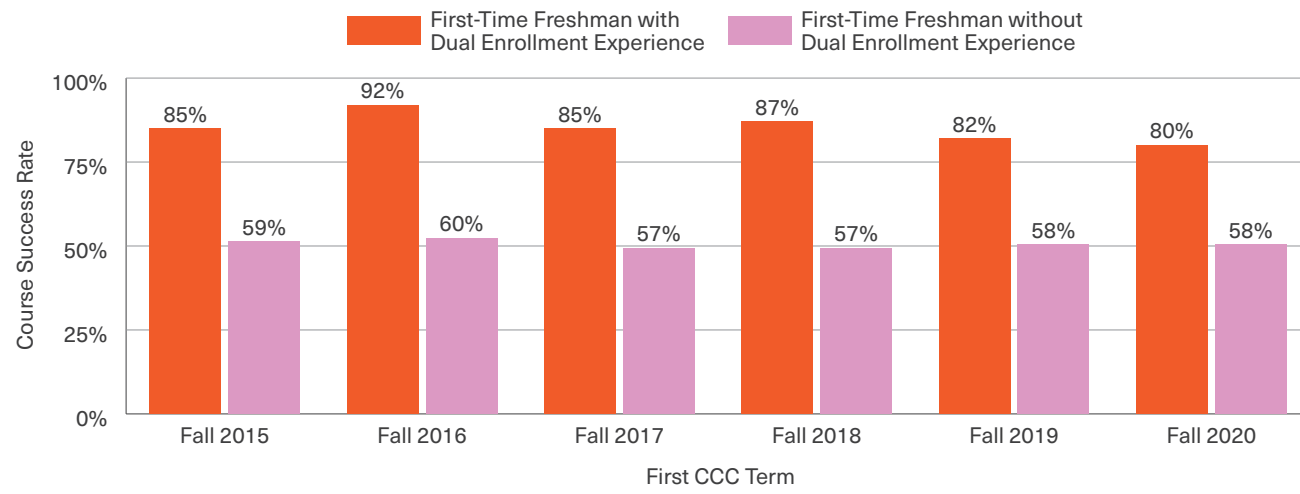
East Los Angeles College



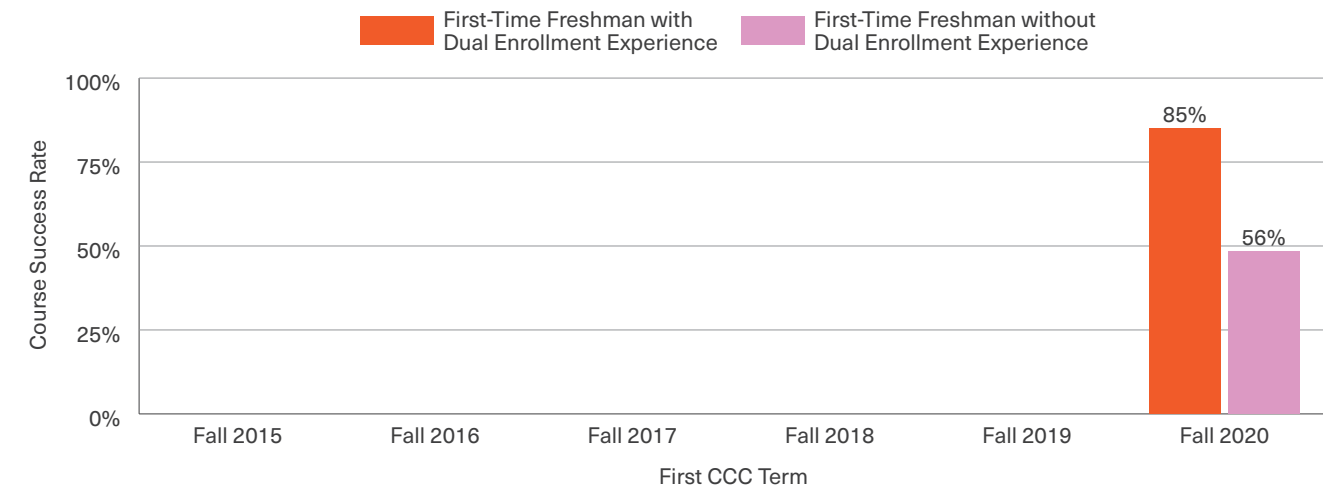
Hartnell College



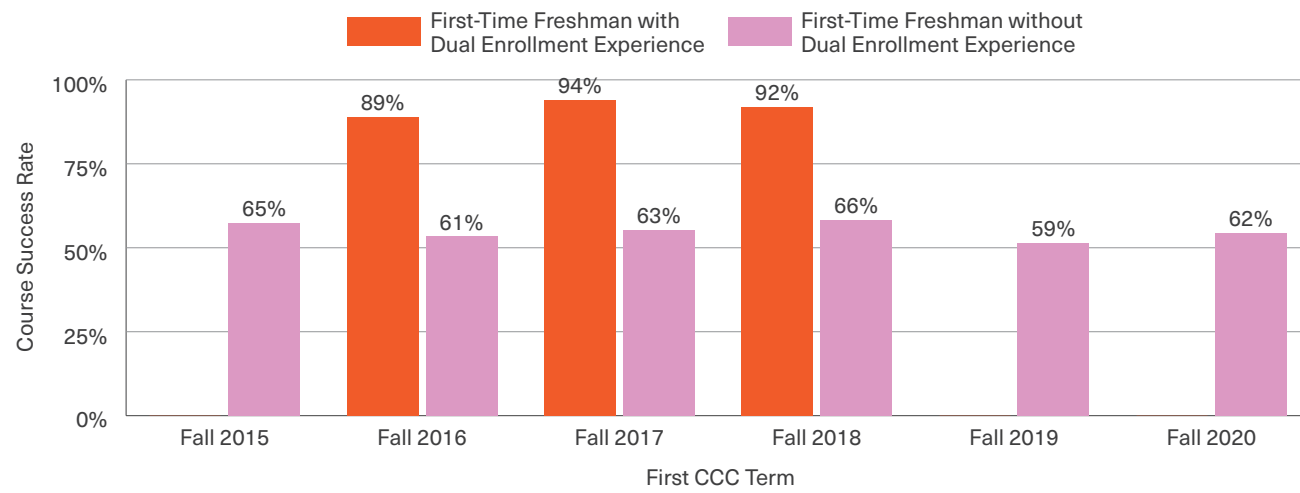
Fresno City College



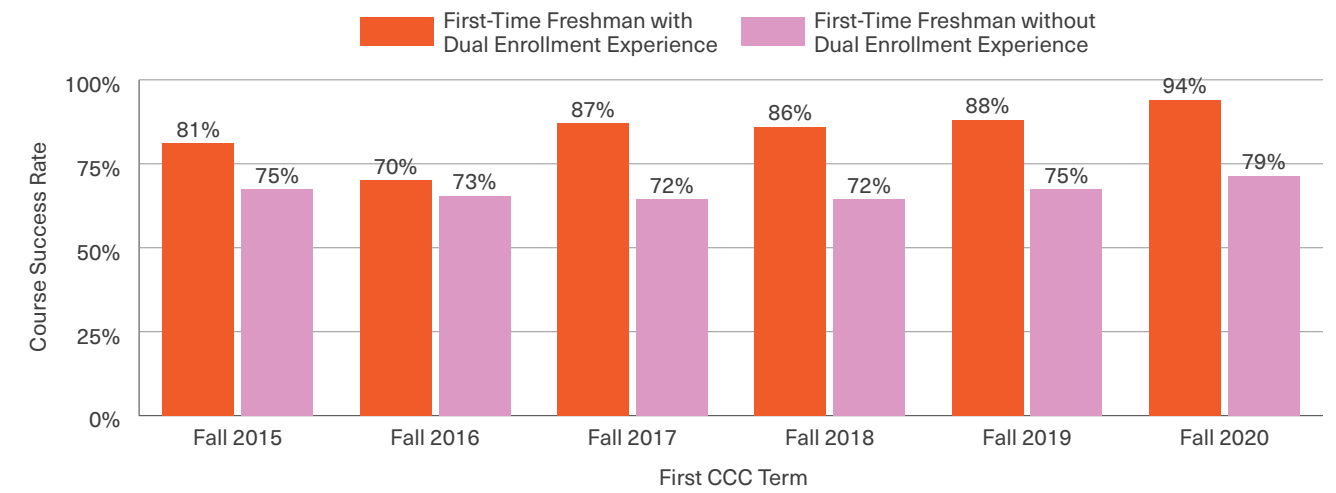
Madera College



Gavilan College



Skyline College



Note: Data are suppressed when there are fewer than 10 students. Compton, Gavilan, and Cuyamaca had fewer than 10 students in fall 2015. Gavilan also had fewer than 10 students in fall 2019 and 2020. Madera only had more than 10 students in fall 2020.

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