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The Postsecondary Outcomes of High School Dual Enrollment Students

A National and State-by-State Analysis

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This report was revised in August 2025 to correct an error in the source dataset in which the sample of community college entrants with prior dual enrollment experience mistakenly included other students who were not first-time entrants at the college. Corrections concerning first-time students with prior dual enrollment experience have been made to have been made to Figures 1 and 2 and to Table 1, along with related text on pp. 2, 9, 10, and 52. The report’s main findings and their implications remain unchanged.



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Inside This Report

Using National Student Clearinghouse (NSC) data, this report presents national and state-by-state findings on the postsecondary enrollment and completion outcomes of high school students who began taking dual enrollment (DE) college courses in fall 2015, tracked for four years after high school. We describe the size and significance of the DE population for postsecondary institutions and states and compare postsecondary outcomes among dual enrollees to outcomes of other recent high school graduates entering higher education without prior DE experience. Given previous research indicating that low-income, Black, and Hispanic high school students are severely underrepresented in DE coursework, we further disaggregate results for these subgroups to highlight the potential for DE to strengthen high-school-to-college-and-career transitions and increase equity for underserved communities.

Key Findings

1. High school DE is widespread and growing across states; it is especially prevalent at community colleges.

- DE represented a significant segment of postsecondary enrollment in fall 2015: 27% of all new undergraduates entering postsecondary education were either currently taking or had formerly taken DE coursework. For community colleges, which serve nearly three fourths of all DE students, 40% of new students were either current (30%) or former (10%) dual enrollees.
- Ten states (California, Florida, Illinois, Minnesota, New York, North Carolina, Ohio, Texas, Washington, and Wisconsin) accounted for more than half of all new DE students nationally in fall 2015, and the state with the most new DE students—Texas—had nearly twice as many as the second largest state (New York).
- Other research indicates that DE has continued to grow at community colleges since 2015. DE increased 46% from fall 2015 to fall 2021 and another 18% from fall 2021 to fall 2023.

2. DE students have strong postsecondary outcomes after high school, particularly in some states.

- Eighty-one percent of DE students in our fall 2015 starting cohort went to college in the first year after high school—including nearly a third at community colleges and a majority (51%) at four-year institutions.
- Among the students who took DE during high school, 42% completed a college award within four years of finishing high school; 29% completed a bachelor's degree.
- Four years after high school, almost a third (31%) of DE students were still enrolled in college but had not yet earned an award.

- Completion rates for DE students in the entry cohort were well above those of recent high school graduates entering postsecondary education without DE. Four years after high school completion and among the DE students who entered college right after high school, 36% had completed a bachelor's and 12% had completed an associate degree, compared to rates of 34% and 9%, respectively, among recent high school graduates who started college without any DE.
- In 41 states, DE students who enrolled in college right after high school had higher college completion rates than recent high school graduates entering postsecondary education without prior DE, and in 16 states, DE students showed double-digit higher completion rates. The postsecondary outcomes of dual enrollees were particularly strong in some states, including Delaware, Florida, Georgia, Mississippi, and New Jersey.

3. Low-income, Black, and Hispanic students are underrepresented in dual enrollment and have lower average award completion rates than DE students overall. However, among low-income, Black, and Hispanic students, dual enrollees' award completion is still stronger than that of non-dual enrollees.

- Black DE students were more likely to enroll in college directly after high school than DE students overall, and they were more likely to enroll at a four-year institution. Black dual enrollees also tended to enroll at selective four-year institutions at higher rates than low-income and Hispanic dual enrollees.
- In the first year after high school, low-income and Hispanic dual enrollees were less likely to enroll at a postsecondary institution than Black DE students and other DE students in general. Four years after high school, low-income, Black, and Hispanic DE students were more likely than other DE students to have enrolled at a postsecondary institution without completing an award.
- Award completion rates were lower for low-income, Black, and Hispanic DE students four years after high school, but in contrast to Black DE students, low-income and Hispanic dual enrollees were more likely to have completed an associate degree than DE students in general.
- Despite gaps in postsecondary outcome rates compared to other dual enrollees, low-income, Black, and Hispanic DE students who enrolled in college right after high school were still more likely to complete an award compared to recent high school graduates entering college without DE.

4. High school students who take DE at a four-year institution do particularly well in college but are not as diverse as other DE students in terms of race/ethnicity and income.

- About a quarter of DE in the fall 2015 entry cohort occurred through partnerships with four-year institutions, and four-year-institution dual enrollees were even more likely after their participation in DE to enroll in college, enroll at a four-year institution, and complete a bachelor's degree after high school than community college DE students.
- However, compared to community college DE students, four-year-institution dual enrollees were less likely to live in a lower income neighborhood or to identify as Black or Hispanic.

5. For community colleges, former DE students are a strong source of post-high-school enrollments.

- More than a third of community college DE students in the fall 2015 entry cohort returned for at least one term to the same community college in the first year after high school, and about a quarter enrolled for at least two consecutive terms.
- In some states with large numbers of community college dual enrollees, such as Iowa, Texas, and Washington, nearly half of dual enrollees returned to their DE community college after high school.

Key Implications for Practice and Policy

Broaden the benefits of DE. Our findings show that DE coursework can be a strong lever for increasing equity in college access and completion. But to fully realize the potential of DE, high-quality DE opportunities need to be accessible to more students. One major area for improvement is increasing participation among low-income, Black, Hispanic, and other groups underrepresented in DE. Expanding access to and participation in DE for underserved groups is particularly important for achieving state goals around postsecondary education and especially bachelor's degree attainment. This is underscored by the findings from this study showing strong postsecondary outcomes among low-income, Black, and Hispanic students who were able to participate in DE coursework. Finally, equalizing access to DE provided by four-year institutions is particularly important—four-year-institution dual enrollees in the study had among the strongest postsecondary outcomes but were the least likely to be Black, Hispanic, or from low-income neighborhoods.

Help DE students complete college in a timely fashion. While DE students overall have stronger postsecondary award completion rates than non-dual enrollees, disparities persist for low-income, Black, and Hispanic students. The disparities indicate that more investment and support from postsecondary institutions and their K-12 partners is needed. For instance, four years after high school, about a third of DE students—and even greater proportions among low-income, Black, and Hispanic students—continue to be enrolled at a postsecondary institution. This suggests that, for DE to both serve as a jump start on college and address concerns about affordability, colleges and states need to provide further incentives and supports to help students complete more quickly.

Examine outcomes across different state and local contexts. Although we generally find that DE students enroll and complete college at high rates, our analyses reveal substantial state-by-state differences in DE student outcomes. Colleges and states should use the findings from this report to assess whether they need to prioritize efforts to broaden access to DE, increase DE student success, or both. Further, state-level results from this report can inform the development of statewide strategies to help more DE students complete college in as little time and cost as possible. Given the wide range of state policies and local implementation practices in the national DE landscape, our analyses raise questions about how different state and local approaches to DE policy, programmatic design, and implementation may explain differences in participants' postsecondary outcomes. This study provides a framework for using data currently available from NSC to all states and postsecondary institutions to measure college outcomes for DE students. State, college, and K-12 leaders should use this framework and their own data from NSC and other sources to benchmark outcomes, set improvement targets, and track progress.

Data Glossary

In this report, we analyze National Student Clearinghouse (NSC) data on all students who entered a community college or four-year institution for the first time in the fall of 2015, using the following data definitions. Appendix A offers a detailed description of the data and methods used to measure postsecondary outcomes.

Student Types

Dual enrollment (DE) students: High school students who enrolled at a postsecondary institution for the first time ever in fall of 2015, prior to their expected high school completion.

Prior dual enrollment (PDE) students: New undergraduates who enrolled at a postsecondary institution in fall 2015, after their expected high school completion, with records of prior postsecondary enrollment while in high school.

Non-dual-enrollment (non-DE) students: New undergraduates who enrolled at a postsecondary institution for the first ever time in fall 2015, after their expected high school completion, with no prior DE experience.

Institutional and Student Characteristics

Community colleges: All state-defined community colleges, excluding branch campuses, military colleges, less-than-two-year colleges, and adult and career technical centers and colleges; for ease of exposition, we call these excluded institutions “other two-years.”

Other two-year institutions: As explained just above, these are community college branch campuses, military colleges, less-than-two-year colleges, and adult and career technical centers and colleges.

Four-year institutions: These include public, private nonprofit, and private for-profit four-year institutions, based on IPEDS and Carnegie Classification information from the 2021-22 academic year.

Institution selectivity: We follow NSC’s definition and draw on the 2015 Carnegie Classification to categorize four-year institutions into three groups: very selective, moderately selective, and nonselective.

Institution urbanicity: We use the urbanicity definition from the 2015 Carnegie Classification, which categorizes institutions as rural, urban, or suburban/town.

Program mix: We follow NSC's definition and categorize community colleges into primarily academic or primarily occupational based on the ratio of academic to occupational awards conferred, with "primarily academic program mix" assigned to institutions with less than 50% of occupational awards conferred.

Student race/ethnicity and gender: We use data provided by NSC on student racial/ethnic group and gender at the start of the fall 2015 term.

Student neighborhood income: To estimate student income, we use a proxy measure, student neighborhood income, that links student home addresses to U.S. Census tract-level estimates of household median income. This metric classifies households according to three income levels: low, medium, or high.

Student age group: We calculate student age on September 1st of 2015 and create four age groups for DE students: students who are 13.7 years old or older but younger than 14.7 years old; students 14.7 years old or older but younger than 15.7 years old; students 15.7 years old or older but younger than 16.7 years old; and students who are 16.7 years old or older. We use these age groups to approximate the students' expected high school completion.

Student Outcomes

Postsecondary enrollment: The DE student is enrolled at a postsecondary institution within one or within four years from expected high school completion.

Award completion: We compute completion of bachelor's degrees, associate degrees, and certificates within four years from expected high school completion using NSC award classification and award date data.

Same-institution reenrollment metrics: We compute the rate at which students reenrolled at the same postsecondary institution where they took DE coursework within one year from expected high school completion. We present two alternative measures of reenrollment: students who enrolled for at least one term at their DE institution, and students who enrolled for at least two consecutive terms at their DE institution.

Introduction

Taking college-level dual enrollment (DE) coursework while in high school has dramatically increased over the past two decades. It has become one of the most prominent on-ramps to postsecondary enrollment and degree completion. The expansion of DE has been particularly significant at community colleges, where the number of dual enrollees has increased from 326,000 in the early 2000s to approximately 1.5 million in fall 2021 (Fink, 2023). From 2021 to 2023, DE grew another 18% at community colleges.¹ And new data from IPEDS reveal that nearly 2.5 million students took a DE course at some point during the 2022-23 academic year (Fink, 2024). The growth of DE highlights the importance of examining how many DE students go to college soon after high school and earn an award; how outcomes vary by family income, race/ethnicity, and gender; and how rates of college-going and completion vary across states.

Overall, Black, Hispanic, and low-income students, as well as those from other underserved groups, have been consistently underrepresented among DE students nationally and in most states (Fink, 2021). For example, in the 2017-18 school year, American Indian, Black, Hispanic, multiracial, disabled, and English-learner students were all underrepresented in DE compared to students in high schools more generally (Fink & Jenkins, 2023b). This has led researchers, policymakers, and practitioners to explore strategies for expanding access to DE among students from these underrepresented groups (Fink & Jenkins, 2023b).

The increasing popularity of DE among students, families, and policymakers is not surprising, as prior research has documented the benefits of DE as a strategy for getting a head start on college. A growing body of research finds that DE increases college-going and success for students generally and for those from groups underrepresented among college graduates (An, 2013; Liu et al., 2020; Liu et al., 2022). Taking DE has also been found to shorten the time to degree completion and thus lower its cost (Song et al., 2021). Moreover, the benefits of DE can persist in the long term, increasing students' employment chances and earnings (Henneberger et al., 2022) while expanding the pool of college-educated graduates much needed for today's economy.

To the extent that DE helps to increase the proportion of students who go to college (particularly among those who might not otherwise attend) and decreases the time and cost for students to earn a postsecondary award, it increases the return on investment in postsecondary education for students, families, and taxpayers. Prior research has shown that the educational pathways and outcomes of young adults in their early-to-mid 20s are strong predictors of their chances of having a well-paying job with strong career advancement potential by the time they are 30 years old (Carnevale et al., 2023).

What Is Dual Enrollment?

DE commonly includes coursetaking either on a college campus or online with regular college faculty or in high school with teachers who meet requirements to be adjunct college faculty. DE also includes coursetaking at early college high schools (ECHSs) and Pathways in Technology Early College High Schools (P-TECHs); these are more intensive programs that may lead to an associate degree while in high school, often in a career or academic field. DE does not include Advanced Placement (AP) or International Baccalaureate (IB) courses.

Yet for many students, the transition from high school to college is a complex and poorly supported process that reinforces the growing gap in the U.S. between higher education haves and have-nots (Hoxby & Avery, 2013; Kirst & Venezia, 2004). Among 10th graders in 2002, only 20% of Black and 19% of Hispanic students earned a bachelor's degree within 10 years, compared with 40% of White students (Lauff & Ingels, 2014). Moreover, only 36% of students from families in the lowest income quartile earned any postsecondary award, compared with 78% in the top quartile.

Using NSC data, this report presents national and state-by-state data on rates of college-going and award completion during the four years after high school of students who started taking DE coursework in fall 2015. Given the potential for DE to improve college completion, particularly when expanded to serve underrepresented groups, the report breaks down the national and state-level findings by student neighborhood income, racial/ethnic group, and gender.²

Size and Significance of Dual Enrollment

In this section, we describe the share of entering undergraduates in fall 2015 who were taking DE coursework during that term or who had participated in DE in prior terms, nationwide and across states. We also describe the racial/ethnic, gender, income, and age compositions of DE students and compare them to those of non-DE students.

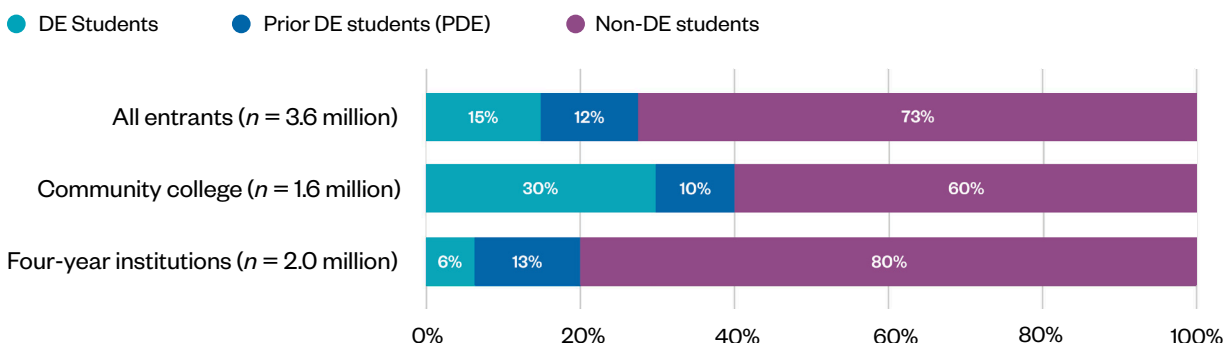
How prevalent is dual enrollment at postsecondary institutions and across states?

Nationally, in fall 2015, 27% of undergraduates entering postsecondary education were either currently taking high school DE courses (15%) or had previously taken DE coursework in high school (12%). For community colleges, current or prior DE students accounted for a significant share (40%) of new entrants.

As shown in Figure 1, in fall 2015, a large share of undergraduates entering postsecondary education were currently or had previously participated in high school DE coursework. This was particularly true at community colleges, where 30% of new students were currently in high school (DE students) and another 10% were entering after high school with prior DE coursework (PDE students). At four-year institutions, DE (6%) and PDE (13%) students represented a smaller but still significant share of enrollments compared to students entering for the first time without any current or prior DE experience (non-DE students, 80%).

Figure 1.

Proportion of Fall 2015 College Entry Cohort by DE Status and Sector



There was large variation by state in the share of new undergraduate students who were current DE students.

Figure 2 shows the share of DE students among all entering students starting at any college, at a community college, and at a four-year institution in fall 2015 across states. As shown in panel A, in Mississippi, 34% of all entering students enrolled at a postsecondary institution were current dual enrollees, but in other states, such as Connecticut, the District of Columbia, Massachusetts, and Rhode Island, fewer than 5% of entering students were current dual enrollees. As shown in panel B, in Kansas, New Hampshire, Ohio, and Wisconsin, DE students represented more than 50% of the community colleges’ enrollment of entering students. As shown in panel C, in Mississippi and Utah, DE students made up more than 25% of all entering undergraduates at four-year institutions.

How diverse are dual enrollment students compared to new undergraduates overall?

Compared to students entering college without any DE experience, Black students in particular were underrepresented and White and female students were overrepresented among DE students.

The racial/ethnic, gender, income, and age compositions of DE students compared to those of entering PDE and non-DE students in the fall 2015 entry cohort are shown in Table 1. At four-year institutions, Hispanic students and students from low-income neighborhoods were underrepresented among DE students, as were Black students, who were underrepresented across all sectors. Community colleges—which offered the majority (72%) of DE courses nationally—enrolled relatively larger shares of Hispanic DE students (17%) and DE students from low-income neighborhoods (33%) than four-year institutions (10% and 27%, respectively).

One third of DE students lived in low-income neighborhoods.

Driven especially by DE students at community colleges, the proportion of DE students from low-income neighborhoods (32%) was higher than that of non-DE students from low-income neighborhoods (27%). This finding highlights the significance of DE as an access point to higher education for students from low-income backgrounds.

Table 1.
Fall 2015 Entry Cohort Student Characteristics by DE Status

Characteristic	All students in entry cohort	DE students			PDE students	Non-DE students
		All dual enrollees	Enrolled in community colleges	Enrolled in four-year institutions		
Race/ethnicity						
Asian	6%	4%	4%	4%	5%	6%
Black	10%	7%	7%	6%	7%	11%
Hispanic	15%	15%	17%	10%	15%	15%
International student	2%	1%	1%	1%	0%	3%
Native American	0%	1%	1%	1%	0%	1%
Native Hawaiian/Pacific Islander	1%	0%	0%	0%	1%	0%
Two or more races	4%	4%	4%	4%	4%	4%
White	52%	61%	60%	63%	64%	48%
Missing	11%	8%	8%	11%	3%	12%
Gender						
Female	52%	56%	56%	56%	58%	50%
Male	43%	42%	42%	41%	40%	44%
Missing	5%	3%	3%	3%	2%	5%
Student neighborhood income						
Low-income	28%	32%	33%	27%	27%	27%
Middle-income	18%	21%	21%	21%	19%	18%
High-income	38%	34%	32%	39%	35%	39%
Missing	16%	13%	13%	13%	19%	16%
Age in years (fall 2015)						
13.7-year-olds	0%	3%	3%	1%	0%	0%
14.7-year-olds	1%	8%	8%	7%	0%	0%
15.7-year-olds	4%	29%	29%	29%	0%	0%
16.7-year-olds or older	94%	59%	58%	61%	100%	100%
Missing	0%	1%	1%	2%	0%	0%
Total number of students	3,081,106	457,918	329,519	128,399	379,576	2,243,612

College-Going Rates One Year After High School

Here we examine the extent to which DE students (dual enrollees in the fall 2015 entry cohort) were enrolled in college in the first year after high school, disaggregated by student race/ethnicity, neighborhood income, gender, and the sector where each student was a dual enrollee. We also examine the type of postsecondary institution where dual enrollees matriculated after high school.

From this section onward we will focus on the students who started DE in fall 2015 while they were in 11th or 12th grade (representing 88% of all DE students). We track student records into postsecondary education for at least four years using the available data.

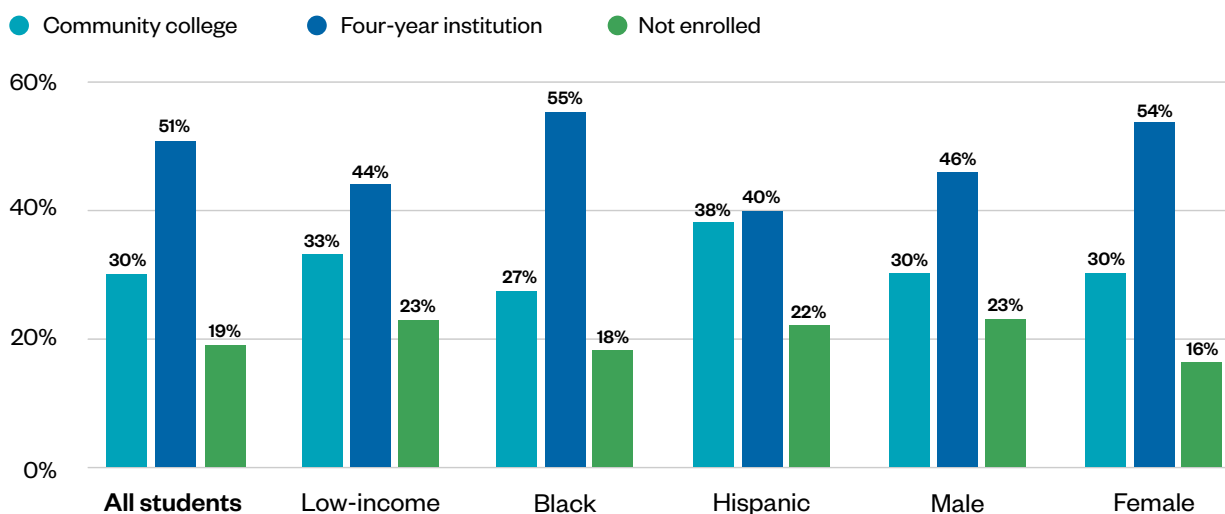
How many dual enrollment students enroll in college after high school, and where do they go?

Four in every five DE students (81%) enrolled at a postsecondary institution in the first year after high school, but this rate was slightly lower among low-income, Hispanic, and male students.

Figure 3 shows the share of DE students in the fall 2015 entry cohort who went on to enroll in college (by sector) within one year of their expected high school completion. Eighty-one percent of DE students did so, with 51% enrolling at a four-year institution and 30% enrolling at a community college.³ This rate is higher than the average postsecondary enrollment rate of high school students, which is estimated to be approximately 70% for the 2016 and 2017 graduating cohorts.⁴ Notably, 19% of dual enrollees did not enroll at any postsecondary institution within the first year, and this rate was higher among low-income (23%), Hispanic (22%), and male students (23%). A higher proportion of low-income (33%) and Hispanic (38%) dual enrollees enrolled at community colleges than DE students generally (30%).⁵

Figure 3.

Postsecondary Enrollment (Within First Year After High School) of DE Students



Note. Students who enrolled simultaneously at a community college and four-year institution after high school are counted as four-year-institution enrollees. Fewer than half a percent of DE students matriculated at “other two-year” institutions within one year overall and across all subgroups; for clarity, we exclude these data from the figure.

Most DE students who took DE courses at a four-year institution continued at a four-year institution after high school, whereas community college DE students were more evenly split between those first attending a four-year institution and those continuing at a community college after high school.

Figure 4 shows rates of post-high-school college enrollment of DE students in the fall 2015 entry cohort who took DE at a community college (panel A) versus those who took DE at a four-year institution (panel B). While overall college-going rates were higher for both community college and four-year-institution dual enrollees relative to high school graduates generally, students who took DE at a four-year institution continued in college after high school at a slightly higher rate (83%) than students who took DE at community colleges (80%). Regardless of the type of institution where they took DE, Black and female dual enrollees continued in college after high school at higher rates than other students, whereas students from low-income neighborhoods, Hispanic students, and male students were more likely to not enroll at any college in the first year after high school.

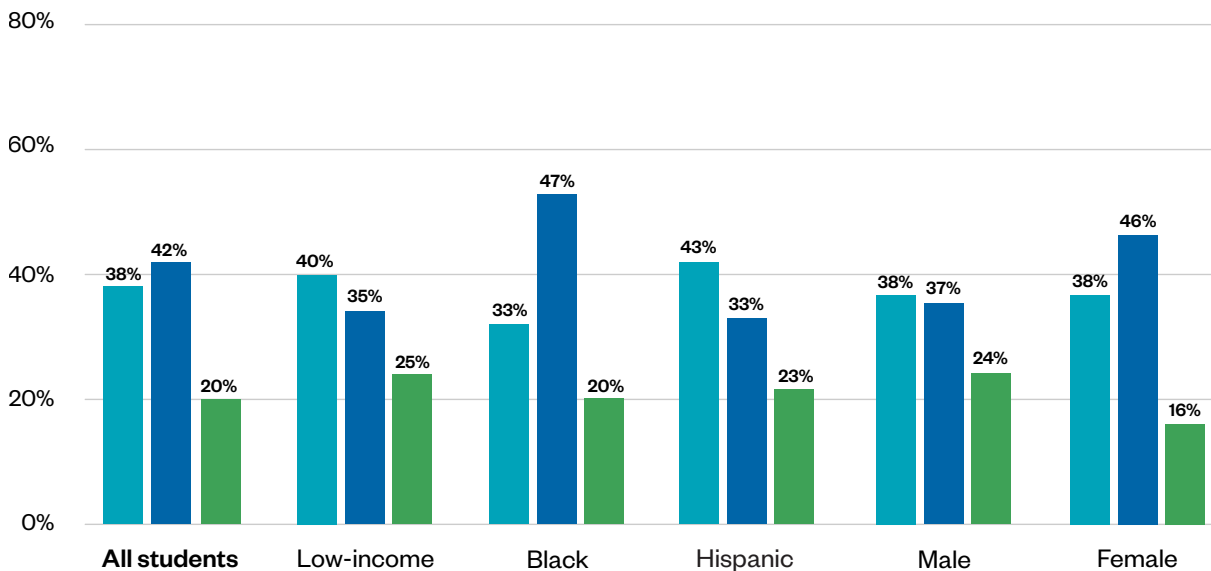
Overall, 73% of the four-year-institution dual enrollees continued at a four-year institution after high school, whereas 42% of community college dual enrollees continued at a four-year institution after high school. Black students and female students enrolled at four-year institutions at higher rates among community college (47% and 46%, respectively) and four-year-institution dual enrollees (75%, both).

Community college dual enrollees were much more likely to continue at a community college after high school than four-year-institution dual enrollees. And as we discuss in the next section, a large majority of community college dual enrollees continued at the same community college they attended in high school. Hispanic students and students from low-income neighborhoods who took community college DE courses most frequently continued at community college after high school (43% and 40%, respectively).

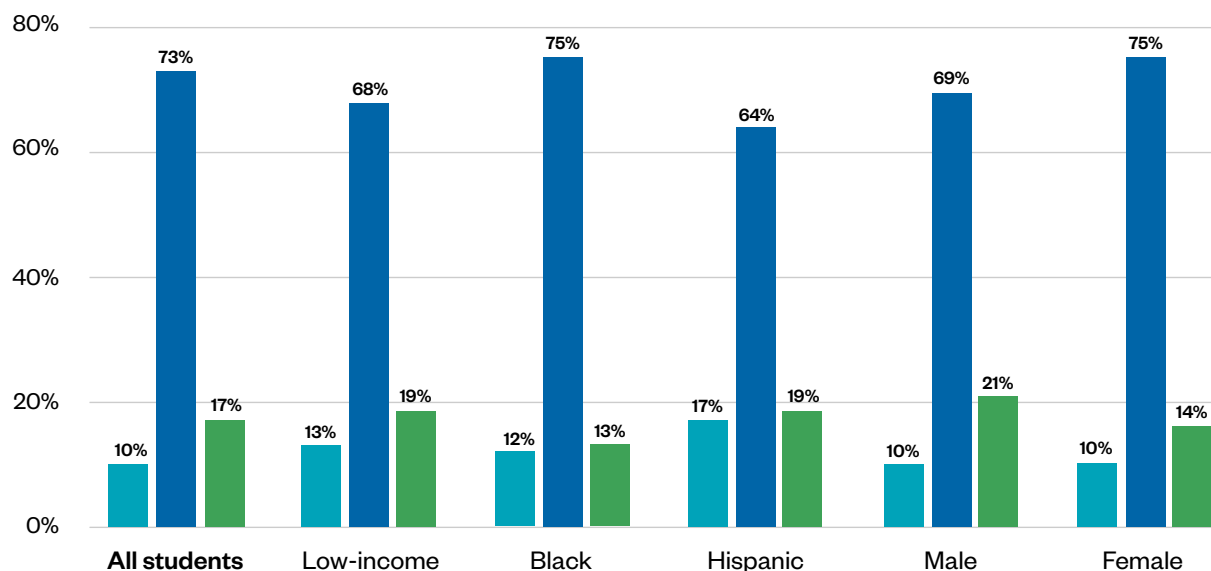
Figure 4.
Postsecondary Enrollment (Within First Year After High School) of DE Students, by DE College Sector

● Community college ● Four-year institution ● Not enrolled

A. Community college dual enrollees



B. Four-year-institution dual enrollees



Note. Students who enrolled simultaneously at a community college and a four-year institution after high school are counted as four-year-institution enrollees. Fewer than half a percent of dual enrollees matriculated at “other two-year” institutions within one year overall and across all subgroups; for clarity, we exclude these data from the figure.

How do the postsecondary pathways and outcomes of dual enrollment students compare to those of recent high school graduates without dual enrollment?

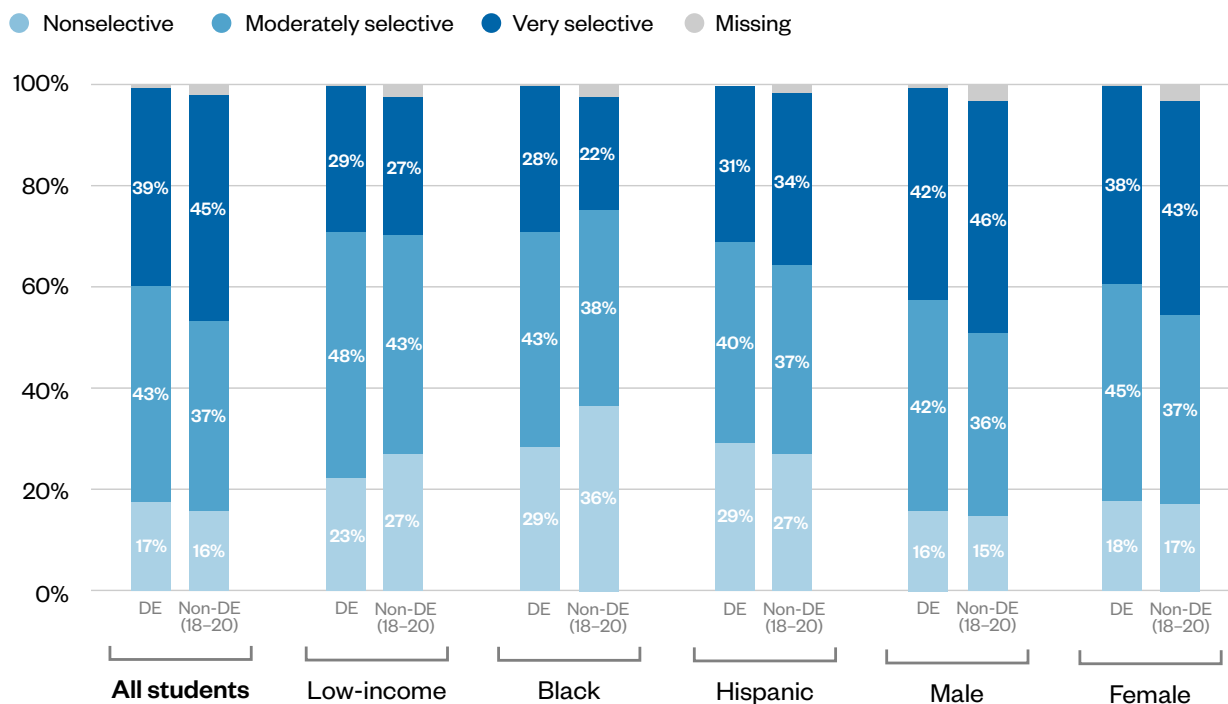
In the following analyses, we consider only fall 2015 DE students who enrolled in college within the first year of their expected high school completion. We do so to examine the characteristics of the institutions they enrolled in after high school. For comparison, we also provide results for non-DE students who recently graduated from high school. We thus constrain the non-DE students in the fall 2015 entry cohort to those who were between 17.7 years old and those younger than 20 years old by September 2015 (“non-DE (18–20)”). This narrows the non-DE students to those who started college shortly after expected high school completion, thus making them more comparable with the sample of dual enrollees who matriculated at college within a year after high school.

It is important to recognize that comparisons between DE students and non-DE (18–20) students who matriculated at college shortly after high school are merely descriptive and should be interpreted with caution, as the two groups are systematically different. Because of how DE programs have been implemented to prioritize serving more academically advanced and otherwise privileged students, the outcomes for DE students in these analyses are very likely overestimates of the impacts of DE participation.⁶

Low-income, Black, and Hispanic DE students who attended four-year institutions in their first year after high school were less likely to attend very selective institutions than DE students overall. However, low-income and Black dual enrollees enrolled in higher shares at very selective institutions compared to their counterparts without DE.

Figure 5 focuses on recent high school graduates with and without DE participation history who matriculated at a four-year institution and shows the type of institution attended by selectivity. Overall, a smaller share of matriculating DE students (those in the fall 2015 entry cohort who went to college after high school) enrolled at very selective institutions (39%), compared to non-DE (18–20) students (45%). In contrast, a greater proportion of matriculating DE students attended moderately selective institutions (43%). Looking across both groups, there are more salient differences by demographic group than by DE history. In general, low-income, Black, and Hispanic students who enrolled at four-year institutions—with or without a history of DE participation—were less likely to attend very selective institutions. However, low-income (29%) and Black (28%) matriculating dual enrollees had higher enrollment shares at very selective four-year institutions than recent high school graduates without DE (27% and 22%, respectively).

Figure 5.
Selectivity of Four-Year Institutions Among DE and Non-DE (18–20) Students Who Enrolled in One Shortly After High School



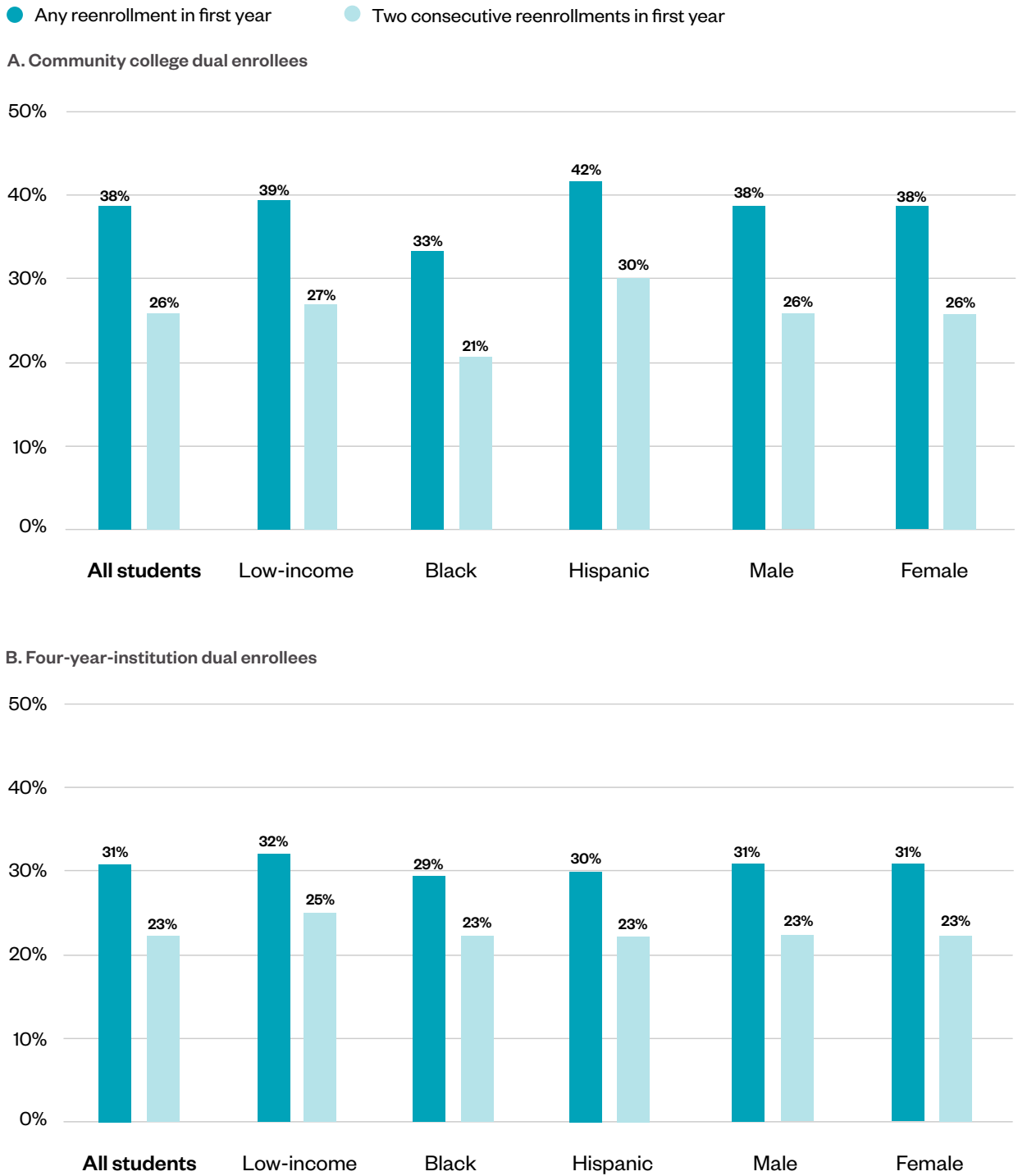
How many dual enrollment students continue at the same college after high school?

Here we examine the rate at which DE students in the fall 2015 entry cohort reenroll after high school at the same postsecondary institution they attended as dual enrollees. We present results using two different measures of reenrollment:

- 1. Any same-institution reenrollment in the first year:** For the 12 months beginning in August of the same calendar year of expected high school completion, the DE student enrolled for at least one term (e.g., a quarter or semester) at the same postsecondary institution where they took DE coursework in high school.
- 2. Same-institution reenrollment for two consecutive terms:** For the 12 months beginning in August of the same calendar year of expected high school graduation, the DE student enrolled for at least two consecutive terms at the same postsecondary institution (e.g., fall and spring or spring and summer) where they also took DE coursework prior to their expected high school graduation.

Figure 6 presents the post-high-school reenrollment rates disaggregated by student subgroup for community college (panel A) and four-year-institution dual enrollees (panel B).

Figure 6.
Same-Institution Reenrollment Rates of DE Students After High School, by DE Sector



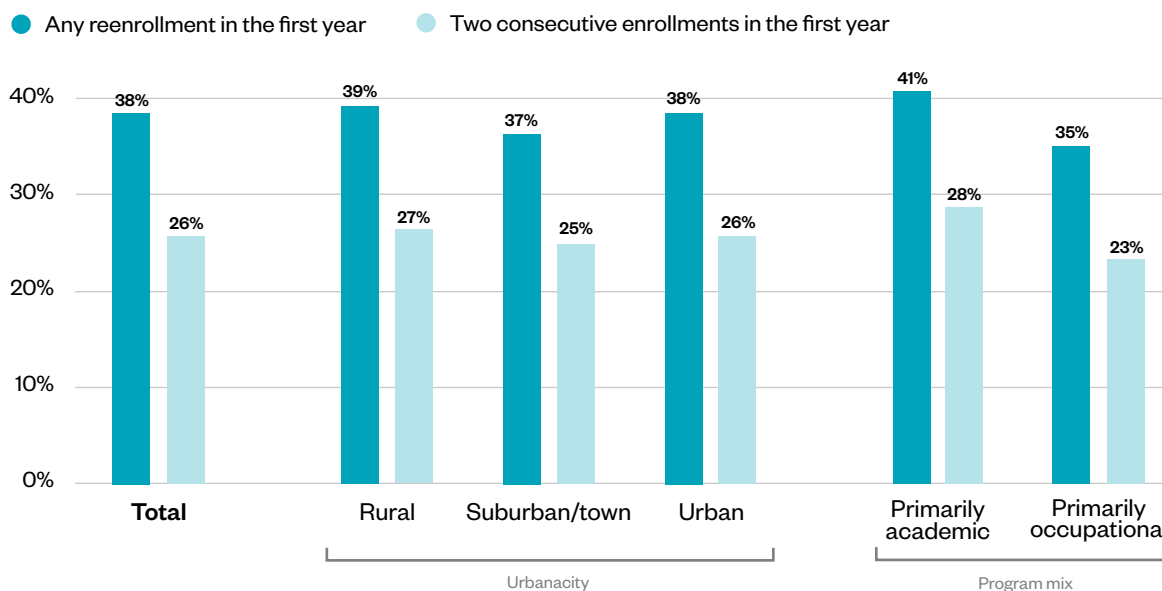
More than a third of community college DE students returned for at least one term to the same community college in the first year after high school; about a quarter of such students reenrolled for at least two consecutive terms. The return rates for four-year-institution dual enrollees were only slightly lower than those of community college dual enrollees.

Thirty-eight percent of the community college dual enrollees and 31% of the four-year-institution dual enrollees reenrolled for at least one term at their DE institution within the first year after high school. This measure includes community college dual enrollees who returned to the same community college where they took DE coursework, including students who also enrolled at other postsecondary institutions in the first year after high school. (Notably, 5% of community college dual enrollees both reenrolled at their community college and enrolled at another four-year institution in the first year after high school.) Rates of any reenrollment within the first year at community colleges were lowest among Black students and highest among low-income and Hispanic students. Using a more stringent measure of reenrollment, requiring that students enroll for two or more consecutive terms, we still find that about a quarter of students reenrolled at their DE community college or four-year institution.⁷

Reenrollment rates were higher at community colleges with a primarily academic rather than a career-technical focus (41% vs. 35%). We found few differences in reenrollment rates by community college urbanicity.

Figure 7 disaggregates reenrollment rates within the first year after high school among community college dual enrollees by urbanicity and program mix of their DE institution. Reenrollment rates at rural community colleges were nearly the same as those at suburban and urban community colleges (39% vs. 37% and 38%, respectively). Reenrollment rates at community colleges with a primarily academic focus were notably higher than at those with an occupational focus (41% vs. 35%).

Figure 7.
Same-Institution Reenrollment Rates of Community College DE Students After High School, by Urbanicity and Program Mix



Dual Enrollment Students' Postsecondary Outcomes Four Years After High School

In this section, we describe students' highest outcome at the end of the fourth year after high school—for example, if a student completed an associate degree and a bachelor's degree, we count them in the bachelor's degree outcome category—and we provide further details on the major fields of bachelor's degree completers. We use the following hierarchy of outcomes: bachelor's degree, associate degree, certificate, did not complete a program but was still enrolled, did not complete a program and was no longer enrolled, and never enrolled. As in the previous section, we also compare outcomes of fall 2015 entry cohort DE students who matriculated at a college within the first year after high school to the outcomes of non-DE (18–20) students.

What are dual enrollment students' highest postsecondary outcomes four years after high school?

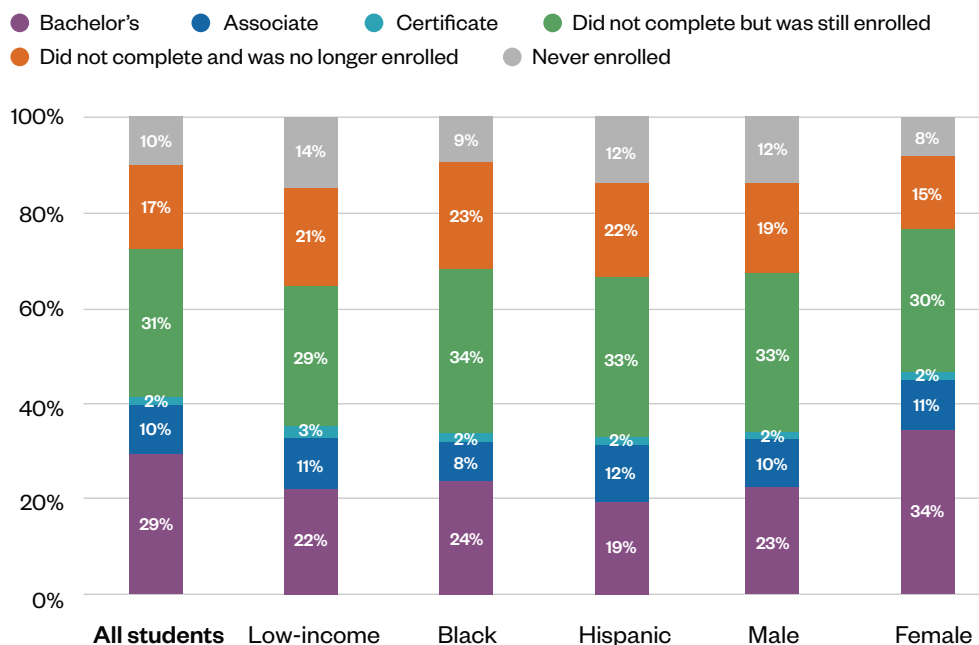
Four years after high school, 90% of DE students enrolled in college and 42% earned a postsecondary award.⁸ Yet award completion rates were lower for low-income (36%), Black (34%), Hispanic (34%), and male (35%) DE students.

Figure 8 shows the highest award completed among community college and four-year-institution dual enrollees in the fall 2015 entry cohort four years after completing high school. Twenty-nine percent of DE students had completed a bachelor's degree four years after high school. Another 10% completed an associate degree, and another 2% completed a certificate. The DE bachelor's completion rate was highest among women (34%) and lowest among Hispanic students (19%). Hispanic students had associate degree completion as their highest outcome (12%) more frequently than other student subgroups.

About a third of DE students were still enrolled and working toward completing college programs four years after high school, whereas about a quarter of DE students were no longer enrolled or had never enrolled.

While 42% of DE students had completed a postsecondary award four years after high school, another 31% were still enrolled and pursuing a college credential. The other 27% of DE students were not enrolled in college and had not earned a college award four years after high school. This includes 10% of DE students who simply never enrolled at any college and 17% who enrolled at some point but stopped out without completing a certificate or degree. The share of students who stopped out without an award or who never enrolled was higher among low-income (35%), Black (32%), Hispanic (33%), and male students (32%).⁹

Figure 8.
Highest Postsecondary Outcome of DE Students Four Years After High School



How does the type of institution dual enrollment students first attend after high school relate to their postsecondary outcome?

We next examine the highest outcome four years after high school among the 81% of fall 2015 DE students who went to college in their first year after high school. Figure 9 shows the highest award by the type of postsecondary institution students enrolled in their first year after high school: community college (panel A) or four-year institution (panel B).

While rates of completing a postsecondary award were similar among DE students who, in their first year after high school, enrolled at either a community college (49%) or a four-year institution (53%), those who enrolled at a community college were much less likely than those who enrolled at a four-year institution to complete a bachelor’s degree four years after high school (29% vs. 47%).

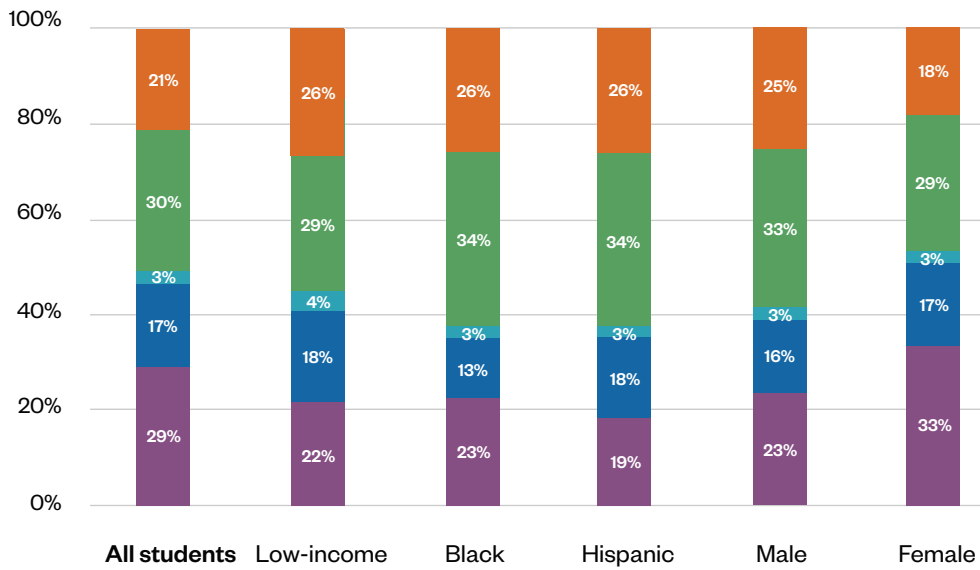
Among DE students who enrolled at a community college after high school, the share of students completing a bachelor’s degree was the lowest among Hispanic students (19%) and was lower than DE students generally (29%) among low-income (22%), Black (23%), and male (23%) students. Rates of bachelor’s completion for DE students starting in both sectors after high school were consistently greater for women, whose bachelor’s completion rate was 33% among those who first enrolled at a community college and 51% among those who first enrolled at a four-year institution. DE students who enrolled at a community college after high school completed associate degrees at higher rates (17%) within four years of high school completion than their counterparts who enrolled immediately at a four-year institution after high school (5%). About one third of DE students who started in both sectors after high school were still enrolled without a college award four years after high school, though dual enrollees who enrolled at a community college after high school were more likely to stop out without an award by the fourth year than those who enrolled at a four-year institution after high school (21% vs. 13%).

Figure 9.

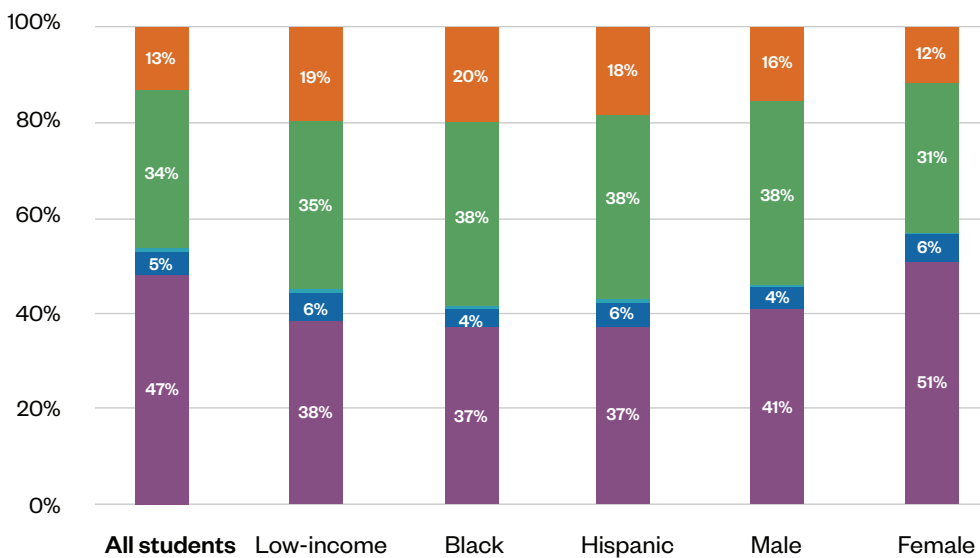
Highest Postsecondary Outcome (Within Four Years) of DE Students Who Enrolled in College Within First Year After High School by Sector of Post-High-School Enrollment

- Bachelor's
- Associate
- Certificate
- Did not complete but was still enrolled
- Did not complete and was no longer enrolled
- Never enrolled

A. DE students who enrolled in a community college after high school



B. DE students who enrolled in a four-year institution after high school



Note. The figure shows highest postsecondary outcomes four years after expected high school completion of DE students in the fall 2015 entry cohort who, within their first year after high school, enrolled in either a community college (panel A) or a four-year institution (panel B). In panel B, certificate earners make up about 1% or fewer of students in each bar shown.

How do dual enrollment students' postsecondary completion rates compare to those of other recent high school graduates without dual enrollment?

Four years after high school, DE students who enrolled in college had a 2-percentage-point (ppt) advantage in bachelor's degree completion over non-DE (18–20) students (36% vs. 34%). Dual enrollees' greater rate of bachelor's degree completion was even stronger among low-income (+8 ppt), Black (+11 ppt), and Hispanic (+6 ppt) students.

Figure 10 compares the highest postsecondary award rates of DE students in the fall 2015 entry cohort who enrolled in college after high school with those of non-DE (18–20) students within four years of their post-high-school college entry. It shows that DE students completed college at higher rates than non-DE (18–20) students. Differences in bachelor's degree completion within four years are particularly favorable for dual enrollees from low-income neighborhoods (28% vs. 20%) and for Black (29% vs. 18%) and Hispanic DE students (25% vs. 19%). Dual enrollees also had a higher share of associate degree completion overall (12% vs. 9%); this pattern was similar across the selected subgroups. While descriptive, these results are consistent with previous research documenting the positive effects of DE participation on college enrollment and degree attainment,¹⁰ thus adding national-level evidence on the potential of DE to increase postsecondary degree completion especially among low-income, Black, and Hispanic students.

What bachelor's degree programs do dual enrollment students complete, and how do they compare to those of students without dual enrollment?

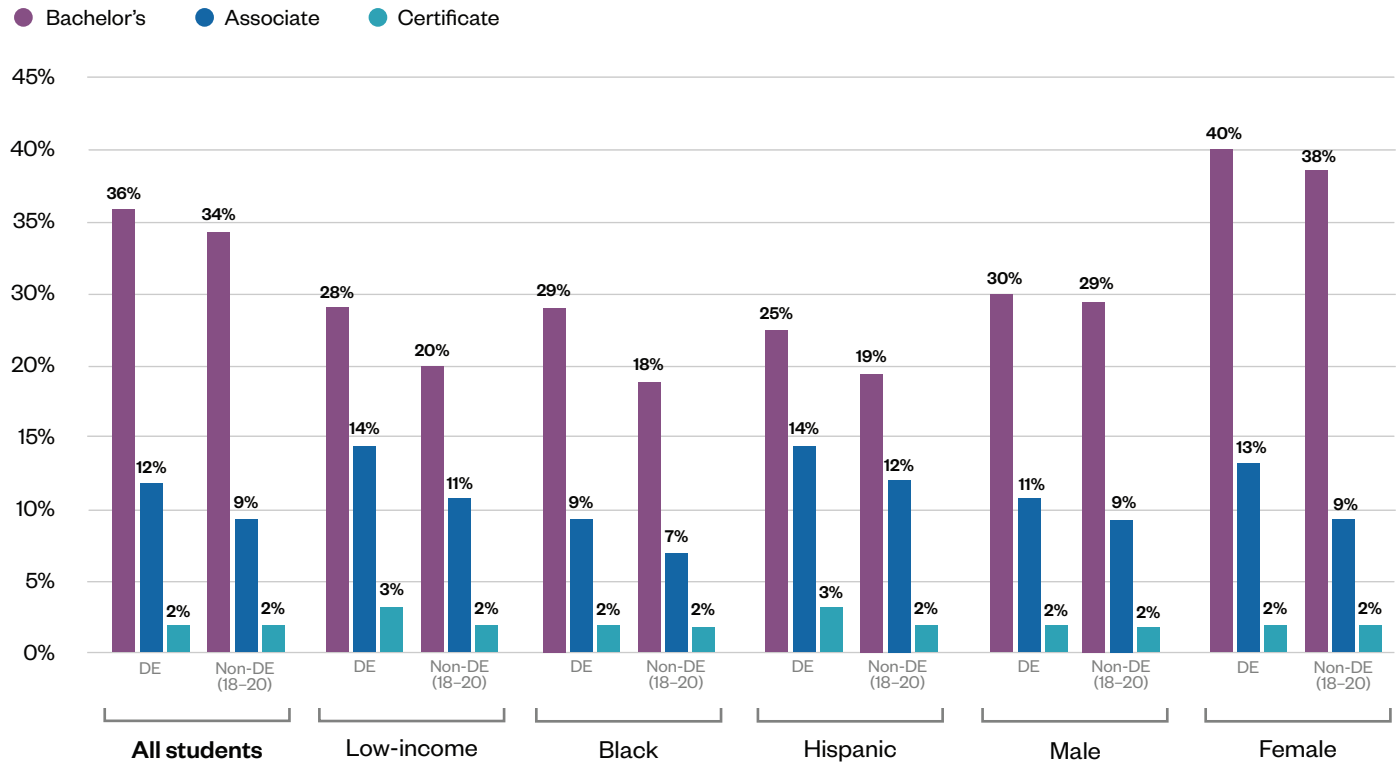
DE students who completed a bachelor's degree were more likely to earn a degree in health fields than non-DE (18–20) bachelor's completers, and Black DE bachelor's completers were more likely to earn a degree in STEM fields than Black non-DE (18–20) bachelor's completers.

Figure 11 focuses on the subset of DE students and non-DE (18–20) students in the fall 2015 entry cohort who completed a bachelor's degree within four years of high school completion or college entry. It shows the percentage of bachelor's degrees awarded to each group by field of study. DE students who completed a bachelor's degree were more likely to do so in health fields (15%) than non-DE (18–20) completers (11%). This pattern is similar across subgroups, with women completing the largest share of health bachelor's degrees overall.

DE and non-DE (18–20) bachelor's completers had the same share (25%) of bachelor's degrees completed in STEM fields. While Black DE bachelor's completers completed in a STEM field at a higher proportion (23%) than Black non-DE (18–20) bachelor's completers (17%), Black students in both groups were still underrepresented among STEM completers compared to students overall. Male dual enrollees who completed a bachelor's degree four years after high school had a higher rate of STEM bachelor's completion (37%) than female, low-income, Black, and Hispanic students; they had a higher rate than even the above-average rate for male bachelor's degree completers without DE participation history (33%). Greater attainment of STEM bachelor's degrees for men was largely driven by completions in computer science and engineering.

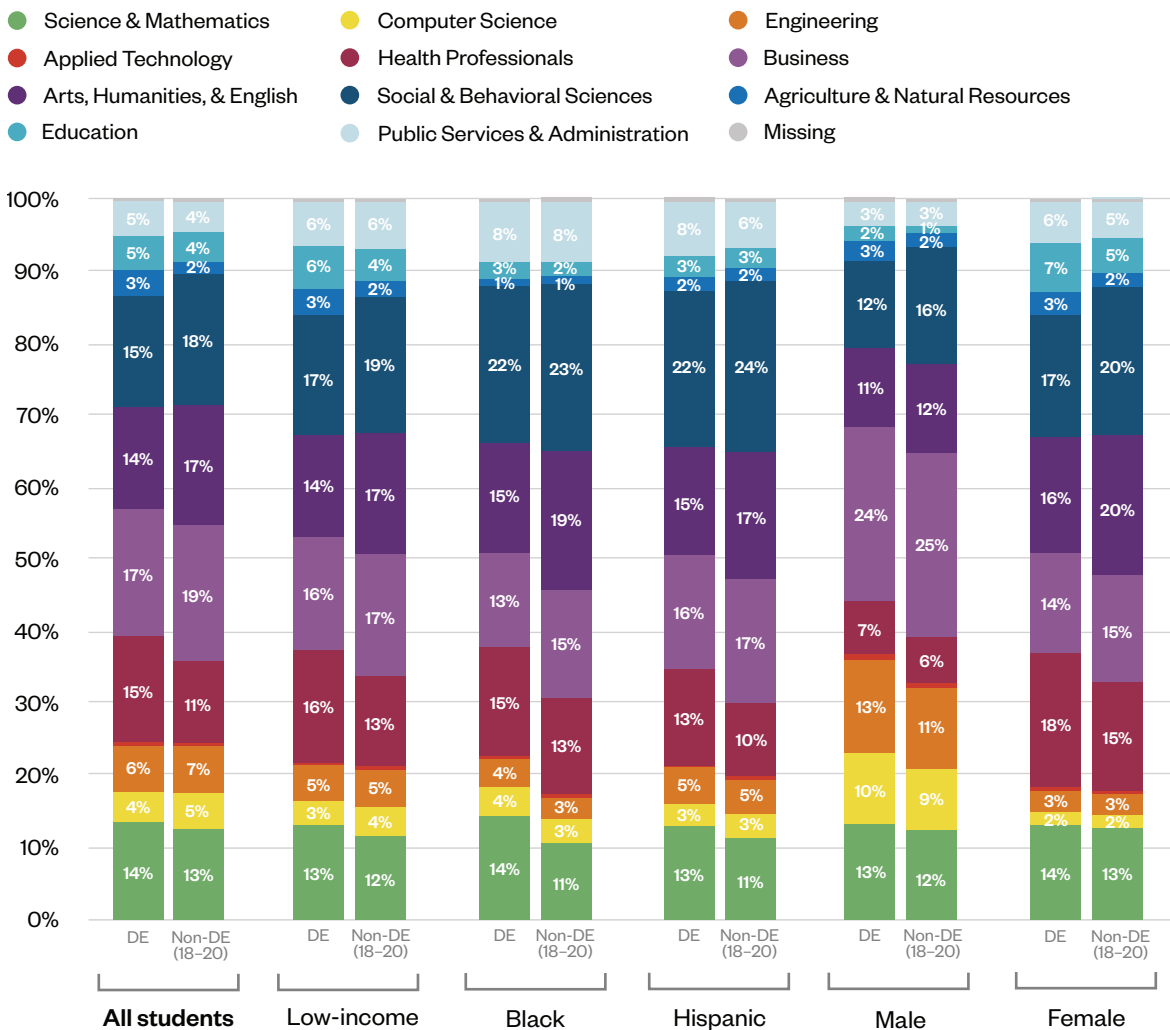
Figure 10.

Highest Postsecondary Award Completed (Within Four Years) by DE Students Who Enrolled in a College Within First Year After High School and by Non-DE (18–20) Students



Note. DE bars represent outcomes of DE students who continued in college after high school. Non-DE (18–20) bars represent outcomes of non-DE college entrants between the ages of 18 and 20 years old.

Figure 11.
Fields of Study of DE and non-DE (18–20) Students Who Earned a Bachelor’s Degree Within Four Years



Note. DE bars represent DE students who continued in college after high school and completed a bachelor’s within four years after high school. Non-DE (18–20) bars represent non-DE college entrants between the ages of 18 and 20 years old who completed a bachelor’s within four years after high school. Students in “applied technology” and “missing” fields each make up 1% or fewer of the students in

State-by-State Differences in Dual Enrollment Student Outcomes After High School

This section examines the significance of DE and the postsecondary trajectories and outcomes of DE students across states overall and among low-income, Black, and Hispanic students. State policy and implementation of DE programs vary substantially across the country, with different approaches to key dimensions such as funding, eligibility requirements, DE course location, instructor type, and subject area. State-by-state differences are thus driven in large measure by the broader context of how DE programs are designed and implemented within each state.

Which states and sectors enroll larger numbers of high school students in dual enrollment courses?

Ten states accounted for more than half of all DE students in the fall 2015 entry cohort, with most students in these states dually enrolled at community colleges.

Figure 12 shows the number of dual enrollee entrants in fall 2015 by state and by proportion in each sector. Texas, New York, California, Ohio, Florida, Minnesota, Illinois, North Carolina, Washington, and Wisconsin served over half (248,829 students) of these dual enrollees, with Texas almost doubling the number of dual enrollees served by the second largest state (New York) in terms of number of DE students. Except for Minnesota, in each of these states, at least two thirds of dual enrollees were at a community college. In Arizona, Illinois, Iowa, Maryland, Nevada, North Carolina, Texas, and Wyoming, over 90% of dual enrollees were at a community college. In Alaska and the District of Columbia, states that served the fewest dual enrollees, all dual enrollees were at four-year institutions. In Delaware and Georgia, over 90% of dual enrollees attended a four-year institution.

How do states differ in the college-going and completion rates of dual enrollment students after high school?

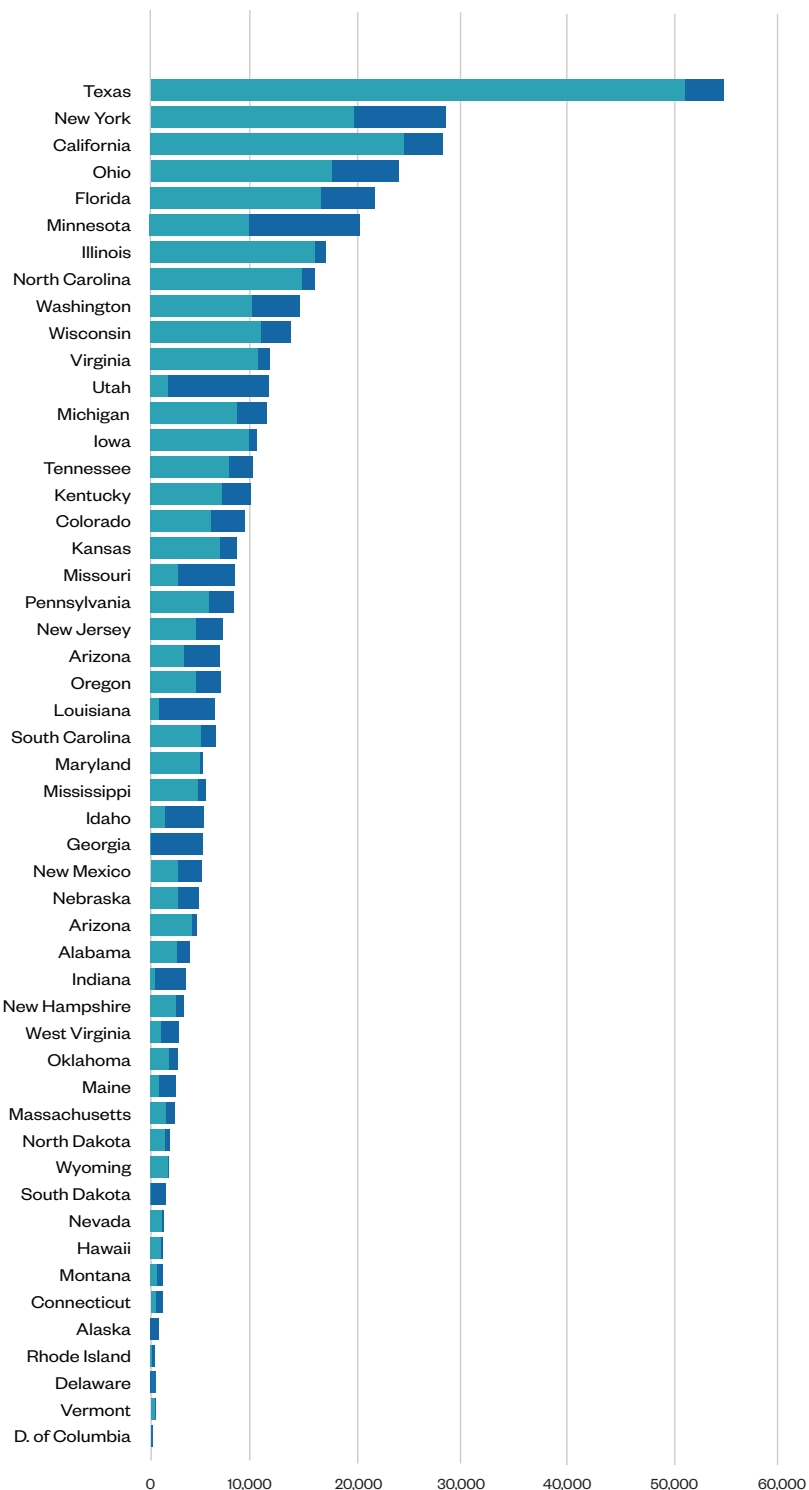
Figure 13 shows the pathways and award completion metrics across states of DE students in the fall 2015 entry cohort (who were in 11th or 12th grade). Panel A shows the rates of college enrollment within DE students' first year after high school. Panel B displays the highest outcomes four years after expected high school completion among DE students by state, sorted from top to bottom by the percentage of DE students who had completed any postsecondary award. Table 2 presents all results by state, listed in alphabetical order.

Figure 12.

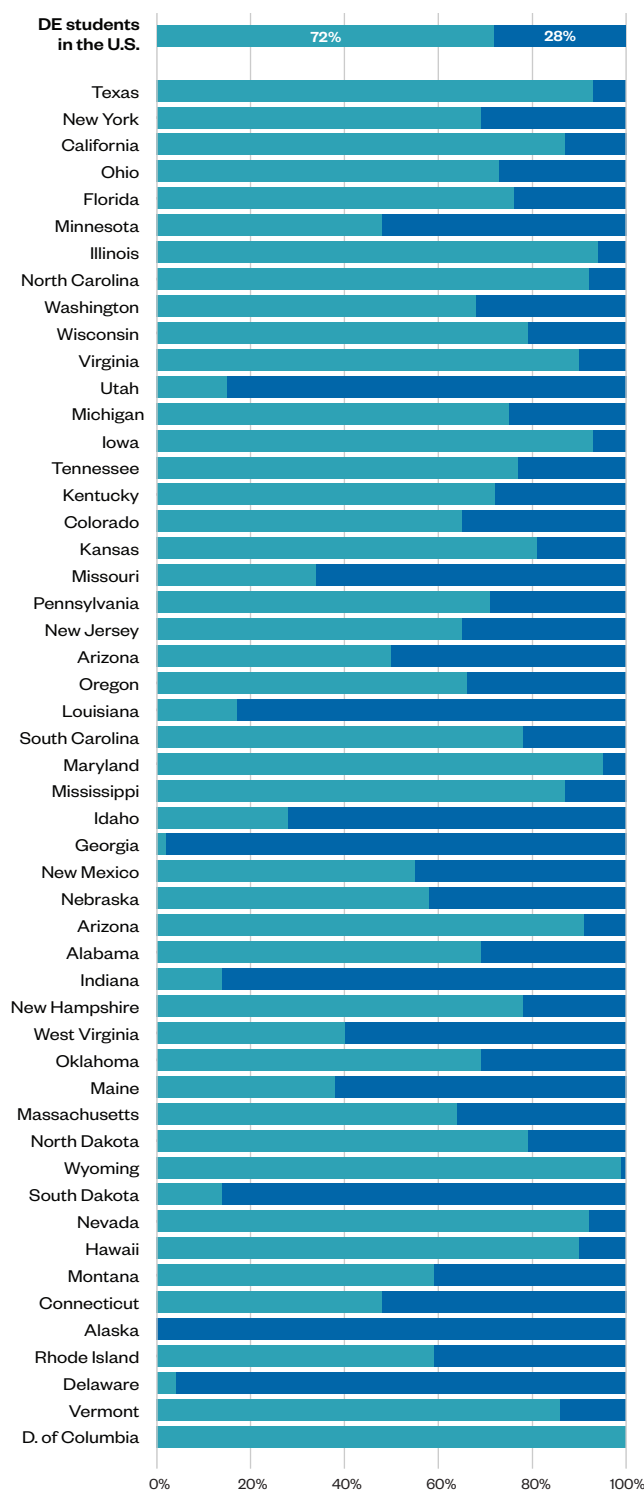
Number and Proportion of Students Starting DE in Fall 2015, by Postsecondary Sector and States

● Community colleges ● Four-year institutions

A. Number of DE students



B. Proportion of DE students

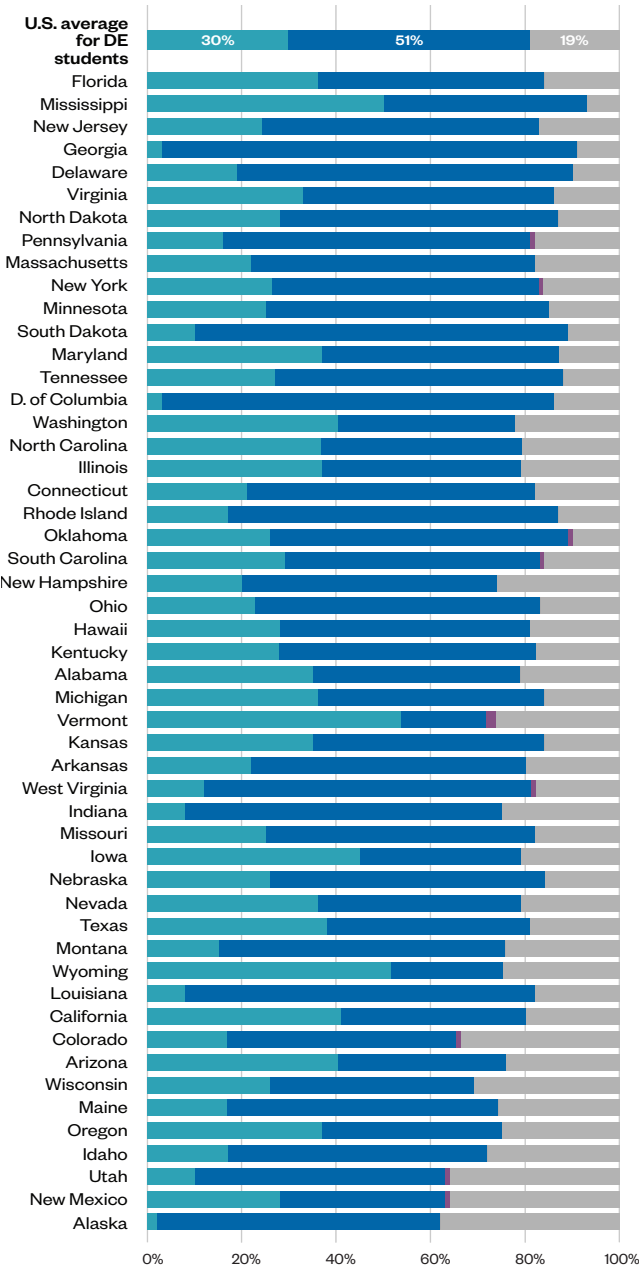


Note. This figure shows results for all DE students starting in fall 2015.

Figure 13.
Postsecondary Enrollment and Award Completion of DE Students, by State

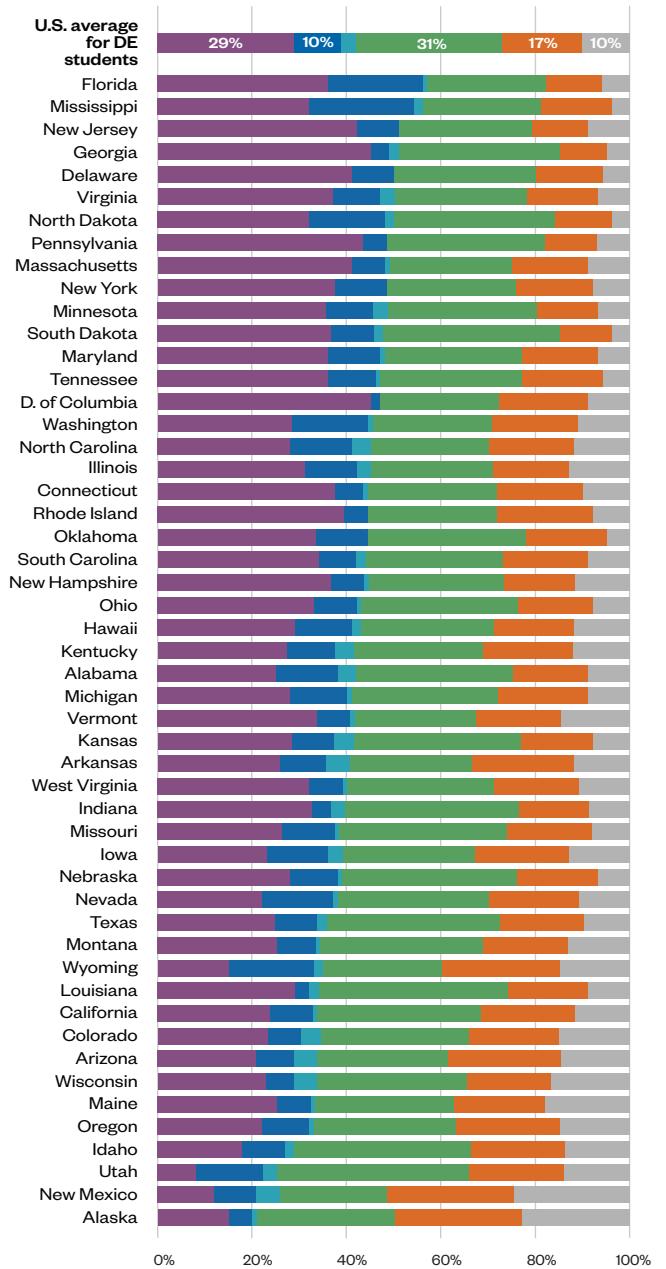
A. Postsecondary enrollment in the first year after high school

- Community college
- Four-year institution
- Other two-year institution
- Not enrolled



B. Highest postsecondary outcome four years after high school

- Bachelor's
- Associate
- Certificate
- Did not complete but was still enrolled
- Did not complete and was no longer enrolled
- Never enrolled



Note. This figure shows enrollment and award completion rates for students who started DE in fall 2015 while they were in 11th or 12th grade. States are sorted by the percentage of dual enrollees (DE students in the fall 2015 entry cohort) who completed any postsecondary award within four years after expected high school completion.

In four states, more than half of DE students had completed some postsecondary award four years after high school. In contrast, in six other states, fewer than a third of DE students had completed any award four years after high school.

Nationally, 42% of DE students had completed some postsecondary award four years after high school (29% completed a bachelor's degree as their highest award, 10% an associate degree, and 2% a certificate). While 25 states outperformed the national average, only four states topped 50% (Florida, Mississippi, New Jersey, and Georgia). Six other states had much lower completion rates, with fewer than a third of students completing any award four years after high school (Maine, Oregon, Idaho, Utah, New Mexico, and Alaska). The top five states with the highest bachelor's completion rates among DE students in the fall 2015 entry cohort were Georgia (45%), the District of Columbia (45%), Pennsylvania (43%), New Jersey (42%), and Delaware (41%).

While dual enrollee completion rates were higher than those of other recent high school graduates entering postsecondary education without DE (see Figure 10), the state-by-state results shown in Figure 13 indicate that there is room for improvement across all student groups in helping dual enrollees complete in a timely manner. For instance, in no state did more than half of dual enrollees complete a bachelor's degree within four years after high school. However, in 18 states, more than a third of DE students had completed a bachelor's degree within *four years* after high school, which is notable given other national research estimating that only a third of high school students complete a bachelor's degree within *eight years* after high school (Lauff & Ingels, 2014).

States with higher DE student postsecondary completion rates four years after high school tended to have higher rates of DE college enrollment in the first year after high school.

As expected, many of the same states with higher postsecondary completion rates for their dual enrollees four years after high school also had higher rates of postsecondary enrollment in the first year after high school. And while dual enrollees in some states—New Jersey, Georgia, and Delaware, for example—primarily enrolled at four-year institutions after high school and completed at higher rates, dual enrollees in other states, including Florida and Mississippi, enrolled at high rates at both community colleges and four-year institutions after high school and also completed postsecondary awards at high rates relative to students in other states.

As Table 2 shows, dual enrollees were more likely to enroll in community colleges than in four-year institutions in the first year after high school in Vermont (53%), Wyoming (52%), Mississippi (50%), Iowa (45%), and California (41%), whereas dual enrollees enrolled at higher rates at four-year institutions in Georgia (88%), the District of Columbia (83%), South Dakota (79%), Louisiana (74%), and Delaware (71%).

In 21 states, more than one in five dual enrollees did not enroll at any postsecondary institution within the first year after high school, and more than one third of dual enrollees did not continue in college in the year after high school in Alaska (38%), New Mexico (36%), Utah (36%), and Colorado (34%). These states also had lower postsecondary completion rates for their DE students four years after high school.

Table 2.

Postsecondary Enrollment and Award Completion of DE Students, by State (Alphabetical State Listing)

State	Total number of 11th- and 12th-grade DE students	Postsecondary enrollment first year after high school				Highest postsecondary award completed four years after high school						
		Community college	Four-year institution	Other two-year institution	Not enrolled	Bachelor's	Associate	Certificate	Did not complete but was still enrolled	Did not complete and was no longer enrolled	Never enrolled	Any award
U.S. average for DE students	403,916	30%	51%	0%	19%	29%	10%	2%	31%	17%	10%	42%
Alabama	3,643	35%	44%	0%	21%	25%	13%	4%	33%	16%	9%	41%
Alaska	605	2%	60%	0%	38%	15%	5%	1%	29%	27%	23%	21%
Arizona	4,325	40%	35%	0%	24%	21%	8%	5%	28%	24%	15%	33%
Arkansas	6,352	22%	58%	0%	20%	26%	10%	5%	26%	22%	12%	41%
California	21,102	41%	39%	0%	20%	24%	9%	1%	35%	20%	12%	34%
Colorado	7,787	17%	49%	1%	34%	23%	7%	4%	31%	19%	15%	34%
Connecticut	1,129	21%	61%	0%	18%	37%	6%	1%	27%	18%	10%	45%
Delaware	477	19%	71%	0%	10%	41%	9%	0%	30%	14%	6%	50%
District of Columbia	186	3%	83%	0%	14%	45%	2%	0%	25%	19%	9%	47%
Florida	20,233	36%	48%	0%	16%	36%	20%	1%	25%	12%	6%	57%
Georgia	5,100	3%	88%	0%	9%	45%	4%	2%	34%	10%	5%	51%
Hawaii	1,148	28%	53%	0%	19%	29%	12%	2%	28%	17%	12%	43%
Idaho	4,937	17%	55%	0%	28%	18%	9%	2%	38%	20%	14%	28%
Illinois	16,077	37%	42%	0%	21%	31%	11%	3%	26%	16%	13%	45%
Indiana	3,372	8%	67%	0%	25%	33%	4%	3%	37%	15%	9%	39%
Iowa	8,762	45%	34%	0%	21%	23%	13%	3%	28%	20%	13%	39%
Kansas	8,410	35%	49%	0%	16%	28%	9%	4%	35%	15%	8%	41%
Kentucky	9,314	28%	55%	0%	18%	27%	10%	4%	27%	19%	12%	42%
Louisiana	6,218	8%	74%	0%	18%	29%	3%	2%	40%	17%	9%	34%
Maine	2,513	17%	58%	0%	26%	25%	7%	1%	29%	19%	18%	33%
Maryland	5,339	37%	50%	0%	13%	36%	11%	1%	29%	16%	7%	47%
Massachusetts	2,162	22%	60%	0%	18%	41%	7%	1%	26%	16%	9%	49%
Michigan	10,713	36%	48%	0%	16%	28%	12%	1%	31%	19%	9%	41%
Minnesota	20,121	25%	60%	0%	15%	36%	10%	3%	32%	13%	7%	48%
Mississippi	5,489	50%	43%	0%	7%	32%	22%	2%	25%	15%	4%	56%
Missouri	8,088	25%	57%	0%	18%	26%	11%	1%	35%	18%	8%	39%
Montana	1,238	15%	60%	0%	24%	25%	8%	1%	34%	18%	13%	35%
Nebraska	4,549	26%	58%	0%	16%	28%	10%	1%	37%	17%	7%	39%
Nevada	1,315	36%	43%	0%	21%	22%	15%	1%	32%	19%	11%	37%
New Hampshire	3,070	20%	54%	0%	26%	37%	7%	1%	29%	15%	12%	44%
New Jersey	6,562	24%	58%	0%	17%	42%	9%	0%	28%	12%	9%	51%
New Mexico	4,046	28%	35%	1%	36%	12%	9%	5%	23%	27%	25%	25%
New York	25,653	26%	56%	1%	16%	37%	11%	0%	27%	16%	8%	48%
North Carolina	13,314	37%	43%	0%	21%	28%	13%	4%	25%	18%	12%	45%
North Dakota	1,969	28%	59%	0%	13%	32%	16%	2%	34%	12%	4%	50%
Ohio	21,268	23%	61%	0%	17%	33%	9%	1%	33%	16%	8%	43%
Oklahoma	2,797	26%	63%	1%	10%	33%	11%	0%	33%	17%	5%	45%
Oregon	6,144	37%	38%	0%	25%	22%	10%	1%	30%	22%	15%	33%
Pennsylvania	7,665	16%	65%	1%	18%	43%	5%	0%	33%	11%	7%	49%

Table 2 (continued).**Postsecondary Enrollment and Award Completion of DE Students, by State (Alphabetical State Listing)**

State	Total number of 11th- and 12th-grade DE students	Postsecondary enrollment first year after high school				Highest postsecondary award completed four years after high school						
		Community college	Four-year institution	Other two-year institution	Not enrolled	Bachelor's	Associate	Certificate	Did not complete but was still enrolled	Did not complete and was no longer enrolled	Never enrolled	Any award
Rhode Island	546	17%	70%	0%	13%	39%	5%	0%	27%	20%	8%	45%
South Carolina	6,147	29%	54%	1%	16%	34%	8%	2%	29%	18%	9%	44%
South Dakota	1,658	10%	79%	0%	11%	37%	9%	2%	38%	11%	4%	47%
Tennessee	10,280	27%	61%	0%	12%	36%	10%	1%	30%	17%	6%	47%
Texas	50,195	38%	43%	0%	19%	25%	9%	2%	37%	18%	10%	36%
Utah	10,399	10%	53%	1%	36%	8%	14%	3%	40%	20%	14%	26%
Vermont	465	53%	18%	2%	26%	34%	7%	1%	26%	18%	15%	41%
Virginia	10,894	33%	53%	0%	14%	37%	10%	3%	28%	15%	7%	50%
Washington	14,349	40%	37%	0%	22%	28%	16%	1%	25%	18%	11%	45%
West Virginia	2,935	12%	70%	1%	18%	32%	7%	1%	31%	18%	11%	40%
Wisconsin	11,382	26%	43%	0%	31%	23%	6%	5%	32%	18%	17%	33%
Wyoming	1,474	52%	24%	0%	25%	15%	18%	2%	25%	25%	15%	35%

Note. This table shows enrollment and award completion rates for students who started DE in fall 2015 while they were in 11th or 12th grade.

In 41 states, DE students who continued in college after high school completed a postsecondary award at a higher rate than non-DE (18–20) students, and in 16 states, the difference exceeded 10 percentage points.

Table 3 compares the postsecondary award completion rates of DE students and non-DE (18–20) students in the fall 2015 entry cohort. As in Figure 10, we consider only the dual enrollees who enrolled in college within one year of high school completion and compare their outcomes to those of students without DE participation history who were 18–20 years old at their college entry, measuring their completion rates four years later. We consider a bachelor's degree, an associate degree, or a certificate as a postsecondary award.

In the District of Columbia and nine states (Connecticut, Indiana, Iowa, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and Wisconsin), dual enrollees had award completion rates below those of students without DE. In the District of Columbia and Rhode Island, the award completion gap was over 10 ppt (18 ppt and 11 ppt, respectively). In the remaining 41 states, DE students completed awards at higher rates than non-DE (18–20) students. In 16 states, this difference was over 10 ppt, and in Arkansas, Florida, Georgia, Mississippi, Nevada, and Oklahoma, dual enrollees' award completion rates exceeded those of students without DE by over 15 ppt.

Table 3.

Postsecondary Award Completion Rates Within Four Years After High School of DE Students Who Enrolled in a College Within First Year After High School and of Non-DE (18–20) Students, by State

State	Postsecondary award completion rate (any award)		Difference (ppt)	State	Postsecondary award completion rate (any award)		Difference (ppt)
	DE students	Non-DE (18–20) students			DE students	Non-DE (18–20) students	
U.S. average for DE students	50%	44%	6	Missouri	46%	41%	5
Alabama	50%	40%	9	Montana	44%	33%	11
Alaska	32%	20%	12	Nebraska	45%	39%	6
Arizona	43%	40%	2	Nevada	46%	28%	18
Arkansas	49%	33%	16	New Hampshire	58%	61%	-3
California	42%	37%	5	New Jersey	61%	48%	12
Colorado	46%	42%	4	New Mexico	37%	31%	6
Connecticut	53%	55%	-2	New York	56%	52%	4
Delaware	55%	54%	1	North Carolina	54%	49%	5
District of Columbia	54%	72%	-18	North Dakota	56%	41%	14
Florida	64%	47%	17	Ohio	50%	45%	5
Georgia	55%	36%	19	Oklahoma	49%	33%	16
Hawaii	51%	38%	13	Oregon	43%	40%	3
Idaho	37%	28%	9	Pennsylvania	58%	54%	5
Illinois	55%	48%	8	Rhode Island	50%	61%	-11
Indiana	50%	52%	-2	South Carolina	52%	46%	5
Iowa	48%	50%	-2	South Dakota	52%	45%	7
Kansas	47%	38%	9	Tennessee	52%	40%	13
Kentucky	50%	39%	11	Texas	43%	34%	8
Louisiana	41%	32%	9	Utah	36%	24%	12
Maine	43%	47%	-3	Vermont	53%	56%	-3
Maryland	53%	46%	8	Virginia	57%	53%	3
Massachusetts	59%	59%	0	Washington	56%	44%	12
Michigan	48%	40%	8	West Virginia	48%	36%	12
Minnesota	55%	50%	4	Wisconsin	45%	47%	-2
Mississippi	60%	41%	18	Wyoming	45%	42%	3

Note. This table shows postsecondary award completion rates within four years for students who started DE in fall 2015 while they were in 11th or 12th grade and who enrolled in colleges within one year after high school, and for non-DE students ages 18 to 20 years old. Postsecondary awards include bachelor's and associate degrees and certificates. In the "Difference" column, green-shaded cells indicate states with higher postsecondary completion rates for dual enrollees compared to non-dual enrollees, and red-shaded cells indicate those with lower completion rates for dual enrollees.

How do states differ in college-going and completion rates for low-income, Black, and Hispanic dual enrollment students?

We report next on state-by-state outcomes for low-income, Black, and Hispanic DE students in the fall 2015 entry cohort. Nationally and in most states, low-income, Black, and Hispanic students are underrepresented in DE relative to the share of low-income, Black, and Hispanic students enrolled in K-12 education generally (Fink & Jenkins, 2023b). Some states have made more progress broadening access to DE for students from these and other underrepresented groups, thereby enhancing their participation in DE coursework (Fink, 2021). Given state differences in how representative DE students are compared to high school students overall, it is important to contextualize state-by-state subgroup results with additional information describing each subgroup's representation among all dual enrollees. Readers should interpret state-by-state outcomes with the understanding that some states may have more restrictive policies (e.g., students and families may need to pay for DE coursework) that create more selective sets of students—potentially college bound already—that access DE coursework.

We provide two sources of information to further contextualize state-by-state outcomes for low-income, Black, and Hispanic dual enrollees. First, we use our NSC data sample to describe the share of dual enrollees in each state from low-income neighborhoods or those who identify as Black or Hispanic (Table 4).

Second, for state-level reporting of outcomes for Black and Hispanic dual enrollees (Figures 15 and 16), we include state-level data from the U.S. Department of Education's Civil Rights Data Collection (CRDC) describing Black and Hispanic representation in DE relative to high school enrollment generally for the 2015-16 school year.¹¹ The CRDC data enable us to further contextualize state-by-state results for Black and Hispanic dual enrollees in terms of participation in DE among high school students in the state, thus illustrating the importance of equitable access to and participation in DE for interpreting the findings. The CRDC data also help us to better document the racial composition of DE across states, as the NSC data have larger shares of missing racial/ethnicity or income information for some states (see Table 4).

State differences in racial/ethnic and income compositions of dual enrollment students

States differed in how representative their DE students were by race/ethnicity and neighborhood income. In a handful of states, DE served disproportionately larger shares of low-income, Black, and Hispanic students, compared to national averages.

Table 4 presents the share of dual enrollees (DE students in the fall 2015 entry cohort) by race/ethnicity and neighborhood income across states. Among the states serving the largest share of dual enrollees, Florida and North Carolina served shares of Black dual enrollees above the national average (10% and 15%, respectively), and California and Texas served shares of Hispanic students above the national average (36% and 40%, respectively). In North Carolina, 53% of the DE students were from low-income neighborhoods—the highest share of low-income students across all states. In contrast, California (42%), Illinois (43%), Minnesota (46%), and Washington (49%) had the largest shares of high-income students. A few states had disproportionately large shares of Black, low-income, and high-income students. While the national average share of Black DE students was 7%, in the District of Columbia and Mississippi, this share was 51% and 24%, respectively.

Table 4.

Race/Ethnicity and Neighborhood Income Characteristics of DE Students, by State

State	Total number of 11th- and 12th-grade DE students	Race/ethnicity					Neighborhood income			
		Asian	Black	Hispanic	White	Missing	Low-income	Middle-income	High-income	Missing
U.S. average for DE students	457,918	4%	7%	15%	61%	8%	32%	21%	34%	13%
Alabama	4,057	1%	11%	3%	67%	13%	39%	19%	16%	26%
Alaska	813	4%	2%	5%	44%	25%	4%	6%	43%	46%
Arizona	4,658	2%	1%	19%	48%	20%	36%	18%	28%	19%
Arkansas	7,190	2%	10%	6%	65%	12%	51%	18%	11%	20%
California	29,415	9%	4%	36%	25%	19%	32%	17%	42%	9%
Colorado	9,490	3%	3%	17%	51%	17%	26%	16%	46%	12%
Connecticut	1,182	7%	13%	16%	51%	9%	22%	15%	53%	10%
Delaware	553	3%	15%	5%	53%	17%	11%	31%	46%	13%
District of Columbia	199	5%	51%	7%	14%	15%	33%	17%	35%	16%
Florida	22,662	3%	10%	21%	55%	6%	33%	23%	30%	13%
Georgia	5,257	8%	15%	6%	62%	5%	30%	18%	41%	11%
Hawaii	1,279	32%	0%	11%	12%	2%	12%	13%	50%	25%
Idaho	5,412	2%	1%	12%	70%	12%	34%	32%	21%	12%
Illinois	17,663	3%	8%	15%	67%	3%	24%	25%	43%	8%
Indiana	3,542	3%	4%	7%	77%	4%	38%	28%	23%	11%
Iowa	10,932	2%	3%	5%	83%	4%	31%	33%	29%	8%
Kansas	8,833	3%	3%	9%	76%	3%	26%	17%	49%	8%
Kentucky	10,120	1%	5%	2%	81%	5%	48%	17%	14%	21%
Louisiana	6,729	1%	14%	4%	52%	26%	38%	23%	23%	16%
Maine	2,617	1%	1%	2%	87%	7%	48%	24%	14%	14%
Maryland	5,583	4%	17%	5%	62%	7%	13%	15%	65%	7%
Massachusetts	2,523	5%	6%	11%	44%	30%	20%	19%	50%	11%
Michigan	11,734	2%	5%	4%	67%	17%	42%	29%	21%	8%
Minnesota	21,237	5%	4%	5%	79%	3%	20%	25%	46%	9%
Mississippi	5,565	1%	24%	2%	68%	1%	48%	14%	13%	25%

Table 4 (continued).**Race/Ethnicity and Neighborhood Income Characteristics of DE Students, by State**

State	Total number of 11th- and 12th-grade DE students	Race/ethnicity					Neighborhood income			
		Asian	Black	Hispanic	White	Missing	Low-income	Middle-income	High-income	Missing
Missouri	8,503	1%	4%	5%	78%	9%	37%	22%	26%	16%
Montana	1,272	1%	1%	3%	86%	2%	29%	20%	10%	41%
Nebraska	4,852	2%	3%	11%	76%	5%	31%	24%	31%	13%
Nevada	1,440	6%	4%	18%	66%	1%	22%	24%	44%	9%
New Hampshire	3,427	2%	1%	3%	55%	37%	11%	18%	59%	12%
New Jersey	7,458	8%	9%	21%	52%	6%	18%	12%	62%	8%
New Mexico	5,132	1%	1%	46%	25%	15%	40%	13%	17%	30%
New York	29,631	8%	9%	15%	57%	7%	29%	24%	35%	13%
North Carolina	16,561	2%	15%	11%	66%	1%	53%	18%	13%	16%
North Dakota	2,006	1%	1%	1%	42%	53%	28%	26%	31%	15%
Ohio	24,909	2%	7%	4%	78%	2%	33%	28%	27%	12%
Oklahoma	2,850	2%	3%	7%	61%	5%	32%	19%	23%	26%
Oregon	7,171	5%	2%	11%	51%	25%	36%	21%	32%	11%
Pennsylvania	8,330	3%	6%	5%	78%	4%	27%	25%	40%	8%
Rhode Island	556	2%	9%	22%	57%	5%	34%	21%	40%	5%
South Carolina	6,655	1%	19%	4%	69%	1%	47%	21%	20%	12%
South Dakota	1,693	1%	0%	2%	92%	1%	32%	28%	24%	17%
Tennessee	10,376	2%	9%	3%	81%	1%	48%	20%	25%	8%
Texas	57,697	3%	5%	40%	41%	5%	33%	17%	32%	18%
Utah	11,886	2%	1%	11%	74%	9%	11%	23%	55%	10%
Vermont	477	1%	3%	2%	63%	26%	26%	34%	18%	21%
Virginia	11,932	5%	13%	5%	68%	1%	24%	15%	48%	12%
Washington	15,021	9%	3%	12%	55%	13%	18%	20%	49%	13%
West Virginia	2,983	1%	3%	2%	90%	1%	45%	16%	9%	29%
Wisconsin	14,033	2%	3%	4%	68%	18%	26%	28%	39%	7%
Wyoming	1,822	1%	0%	9%	80%	2%	20%	24%	22%	34%

Note. This table includes results for all DE students starting in fall 2015.

State outcomes for low-income dual enrollees

The next few figures describe the postsecondary pathways and highest outcomes of low-income, Black, and Hispanic dual enrollees by state. Figure 14 shows low-income DE student enrollment and completion outcomes within one and four years after high school, respectively. Similar to Figure 13, panel A shows rates of college enrollment within one year after high school for DE students from low-income neighborhoods. Panel B displays the highest outcomes for low-income students, sorted by the rate at which low-income students competed any award four years after high school. Atop each panel is the national average for all DE students as a point of reference.

Some states enrolled relatively large shares of low-income students in DE and exhibited stronger postsecondary outcomes for these students, showing the potential for DE to increase postsecondary participation and completion for students from underserved communities.

States with stronger postsecondary completion rates for low-income DE students tended to have stronger college enrollment rates for these students in the first year after high school. However, in 36 states, the rate at which low-income DE students enrolled in any college in the first year after high school was lower than the national average for DE students overall (81%). And in Colorado and Wisconsin, where 26% of DE students were from low-income neighborhoods, large proportions of these students (39% and 46%, respectively) did not continue at any college in the year after high school.

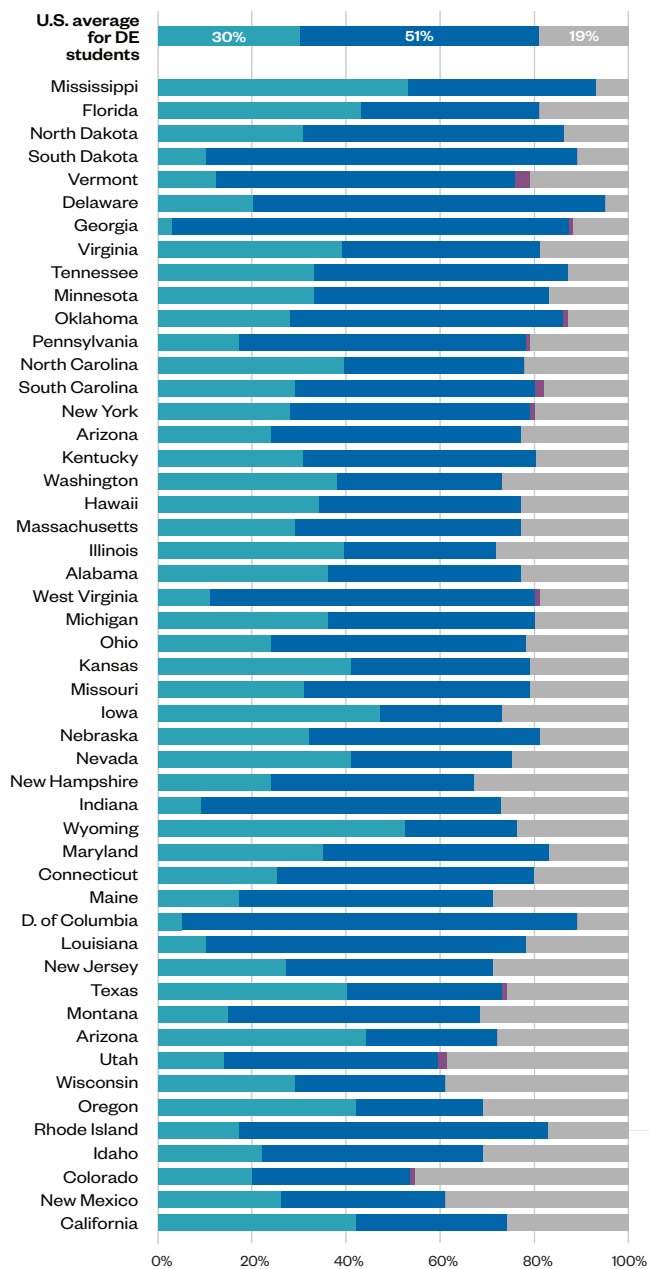
Students from low-income neighborhoods comprised nearly half of dual enrollees in Mississippi and a third of dual enrollees in Florida, and more than half of these students had completed some postsecondary award four years after high school (55% and 52%, respectively)—10 or more percentage points higher than the national average for all DE students regardless of neighborhood income. Similarly, 48% of DE students in Tennessee were from low-income neighborhoods, and Tennessee’s completion rate for low-income DE students (44%) was above the national average for all DE students (42%). Other states, such as Delaware, Minnesota, Virginia, and Vermont, also had above-average completion rates for low-income dual enrollees but enrolled smaller shares of low-income students in DE (11%, 20%, 24%, and 26%, respectively).

Figure 14.

Postsecondary Enrollment and Award Completion of Low-Income DE Students, by State

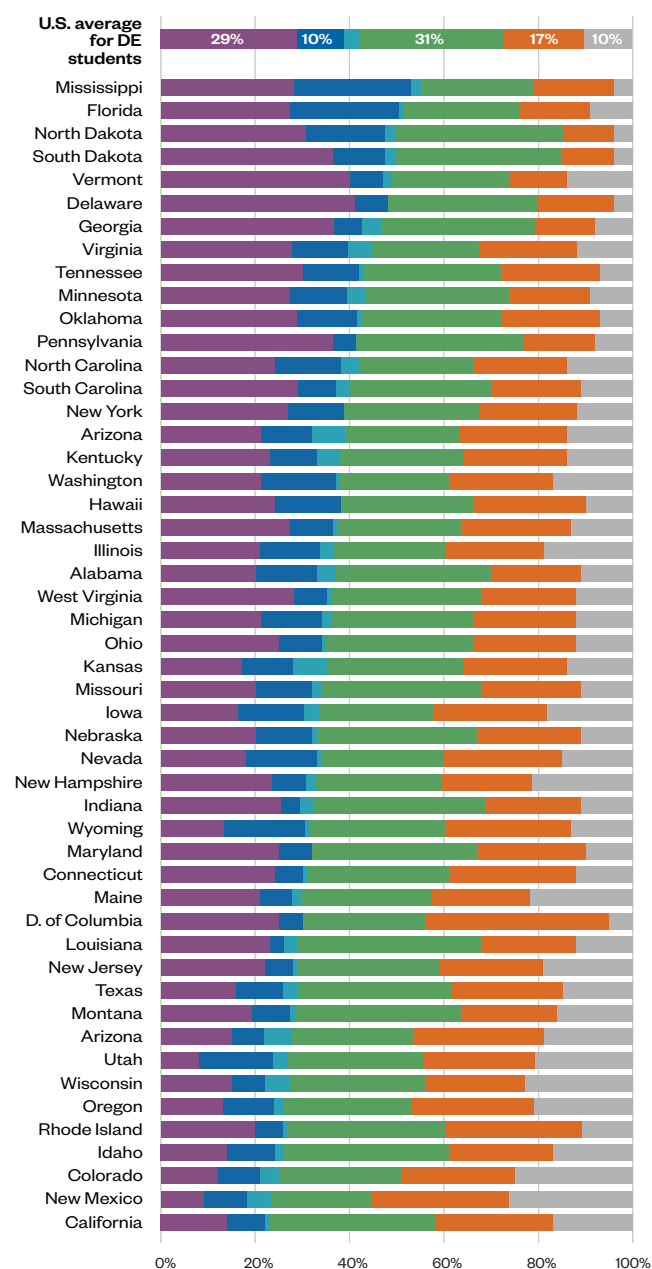
A. Postsecondary enrollment in the first year after high school

- Community college
- Four-year institution
- Other two-year institution
- Not enrolled



B. Highest postsecondary outcome four years after high school

- Bachelor's
- Associate
- Certificate
- Did not complete but was still enrolled
- Did not complete and was no longer enrolled
- Never enrolled



Note. This figure shows enrollment and award completion rates for low-income students who started DE in fall 2015 while they were in 11th or 12th grade. Panel A shows the postsecondary enrollment distribution in the first year after high school, and panel B shows the postsecondary completion outcomes within four years after high school. States with fewer than 30 low-income students are excluded from the figure; thus, Alaska does not appear.

State outcomes for Black dual enrollees

Based on CRDC data, panels A and B in Figure 15 show Black student representation in DE compared to high school enrollment in the 2015-16 school year. Using NSC data, panel C shows the postsecondary enrollment of Black DE students in the fall 2015 entry cohort within the first year after high school, and panel D shows the postsecondary outcomes of Black dual enrollees in the fall 2015 entry cohort by state using NSC data. States in Figure 15 are sorted by the rate of any postsecondary award completion among Black dual enrollees. Collectively, the four panels in Figure 15 illustrate state-by-state differences in access to DE and subsequent postsecondary outcomes for Black students.

In nearly every state, Black students were underrepresented in DE and experienced disparities in postsecondary outcomes. But in a handful of states, Black DE students completed postsecondary awards at rates much higher than the national average.

Nationally, Black students comprised 16% of high school enrollment but only 9% of DE. In all but four states (Washington, the District of Columbia, Rhode Island, and Oregon), the ratio of Black student DE to Black student high school enrollment (Figure 15, panel B) was less than one, meaning that Black students were underrepresented in DE. In Pennsylvania, the Black student representation ratio was 0.28: Four percent of dual enrollees were Black, compared to 15% of high school students in the state.

In Washington and the District of Columbia, where Black students were better represented in DE, completion rates for Black students exceeded the national average of all DE students when looking at either any postsecondary award completed (Washington) or bachelor's degree completion on its own (Washington and the District of Columbia) (Figure 15, panel D). And although Black students were underrepresented in DE at colleges in Delaware, Georgia, and Massachusetts, Black students who did take DE courses completed bachelor's degrees four years after high school at rates above the national average for students overall (37%, 35%, and 32% vs. 29%, respectively). Rates of any award completion for Black DE students were also higher than national averages for DE students overall in Mississippi, Florida, and Washington (48%, 45%, and 44% vs. 42%, respectively), driven by greater completion of associate degrees as the highest postsecondary award four years after high school.

Figure 15.

Black Student Representation in DE and Postsecondary Enrollment and Award Completion of Black DE Students, by State

A. Access to DE: Proportion of Black students in DE versus in high school enrollment

- Dual enrollment
- High school enrollment

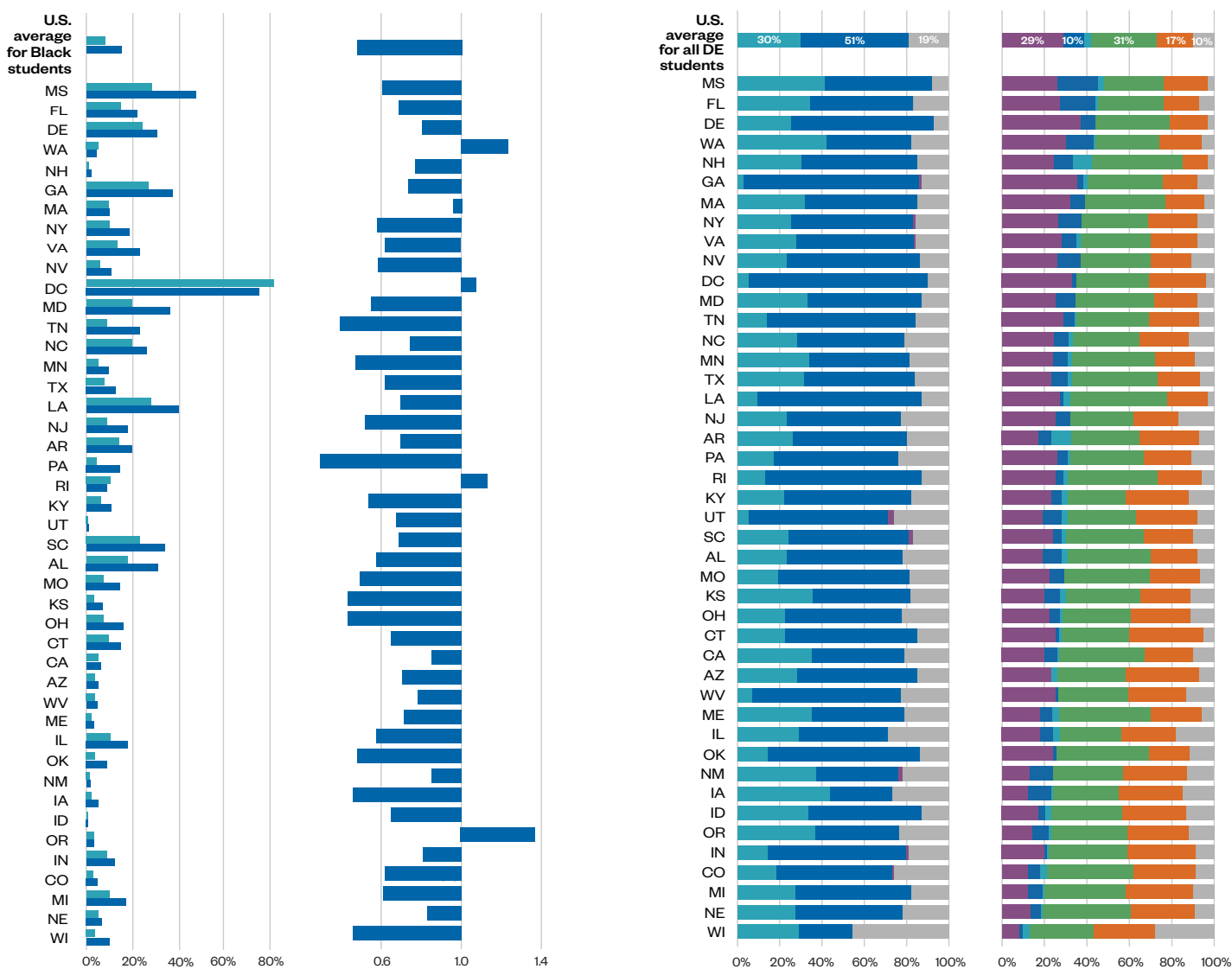
B. DE representation ratio: Proportion of Black students in DE divided by the proportion of Black students in high school enrollment

C. Postsecondary enrollment (within first year after high school) of Black DE students

- Community college
- Four-year institution
- Other two-year institution
- Not enrolled

D. Highest award completed (within four years after high school) of Black DE students

- Bachelor's
- Associate
- Certificate
- Did not complete but was still enrolled
- Did not complete and was no longer enrolled
- Never enrolled



Note. This figure displays Black student representation in DE using 2015-16 high school students' CRDC data and enrollment and award completion for Black students who started DE in fall 2015 while they were in 11th or 12th grade. States with fewer than 30 Black students are excluded from the figure; thus, Alaska, Hawaii, Montana, North Dakota, South Dakota, Vermont, and Wyoming do not appear.

State outcomes for Hispanic dual enrollees

The four panels in Figure 16 show state-by-state differences in access to DE and subsequent postsecondary outcomes for Hispanic students. States in Figure 16 are sorted by the rate of any postsecondary award completion among Hispanic dual enrollees.

States with stronger postsecondary outcomes for Hispanic DE students tended to be those where Hispanic students were more severely underrepresented in DE. In contrast, states with larger Hispanic enrollments and better Hispanic representation in DE had greater disparities in outcomes for Hispanic DE students.

Nationally, Hispanic students comprised 24% of high school enrollment but only 17% of DE. Ten states had postsecondary enrollment and completion rates among Hispanic dual enrollees that were above the national average for all DE students: Florida, Georgia, Mississippi, Virginia, Oklahoma, South Dakota, Washington, Tennessee, South Carolina, and Maryland. However, with the exception of Washington (representation ratio of 0.98) and Florida (0.85), the CRDC data indicate that Hispanic students were substantially underrepresented in DE in all of these states.

While Hispanic students were underrepresented in DE in most states, a handful of states had equalized access to DE for Hispanic students. For instance, in eight states—North Carolina, Indiana, Texas, Idaho, California, Oregon, Nebraska, and Washington—Hispanic students comprised more than 5% of DE (Table 4) and were close to equally or overrepresented in DE relative to high school students (ratios of 0.9 or greater). Of these eight states with sizeable Hispanic student enrollment and better representation in DE, only Washington had rates of any postsecondary award completion for Hispanic dual enrollees four years after high school (46%) above the national average for all DE students (42%), driven primarily by higher rates of associate degree completion (Washington's bachelor's completion rate for Hispanic dual enrollees was 24%, below the national average of 29% for all DE students). The other seven states with larger enrollments and stronger representation in DE among Hispanic students had postsecondary enrollment and completion rates for Hispanic DE students that were below the national average for all DE students.

Figure 16.

Hispanic Student Representation in DE and Postsecondary Enrollment and Award Completion of Hispanic DE Students, by State

A. Access to DE: Proportion of Hispanic students in DE versus in high school enrollment

- Dual enrollment
- High school enrollment

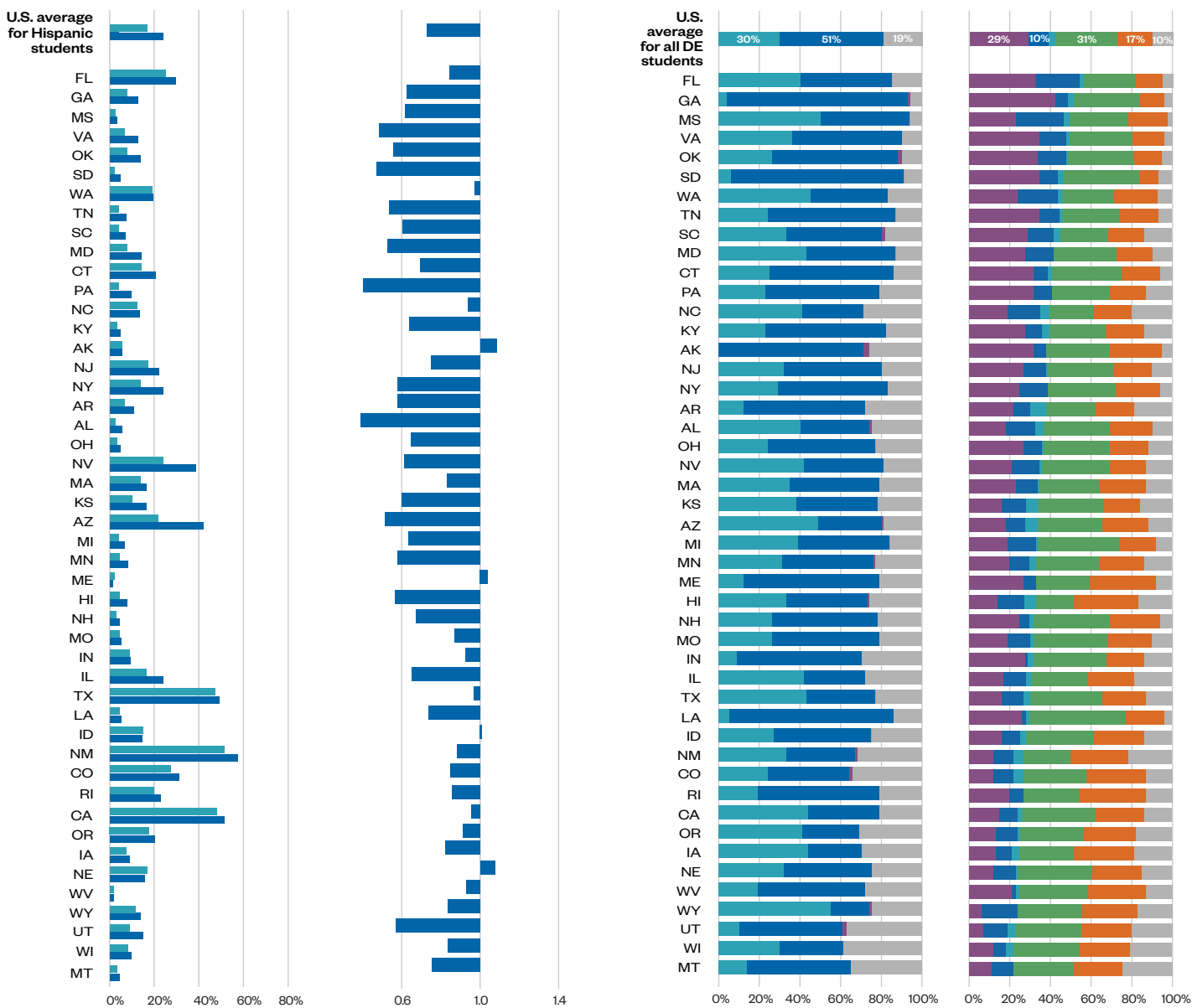
B. DE representation ratio: Proportion of Hispanic students in DE divided by the proportion of Hispanic students in high school enrollment

C. Postsecondary enrollment (within first year after high school) of Hispanic DE students

- Community college
- Four-year institution
- Other two-year institution
- Not enrolled

D. Highest award completed (within four years after high school) of Hispanic DE students

- Bachelor's
- Associate
- Certificate
- Did not complete but was still enrolled
- Did not complete and was no longer enrolled
- Never enrolled



Note. This figure displays Hispanic student representation in DE using 2015-16 high school students' ORDC data and enrollment and award completion for Hispanic students who started DE in fall 2015 while they were in 11th or 12th grade. States with fewer than 30 Hispanic students are excluded from the figure; thus, the District of Columbia, Delaware, North Dakota, and Vermont do not appear.

Which states have the highest rates of community college dual enrollment students returning to the same community college after high school?

Community colleges, which enroll the majority of DE students nationally, are increasingly reliant on DE as a strategy to build back college enrollments since the pandemic (Fink & Jenkins, 2023b). Thus, top of mind for many community college leaders is the percentage of their DE students who reenroll at their college after high school. We present same-institution reenrollment rates nationally in Figure 7, while in this section, we display reenrollment rates specifically for community college dual enrollees by state.

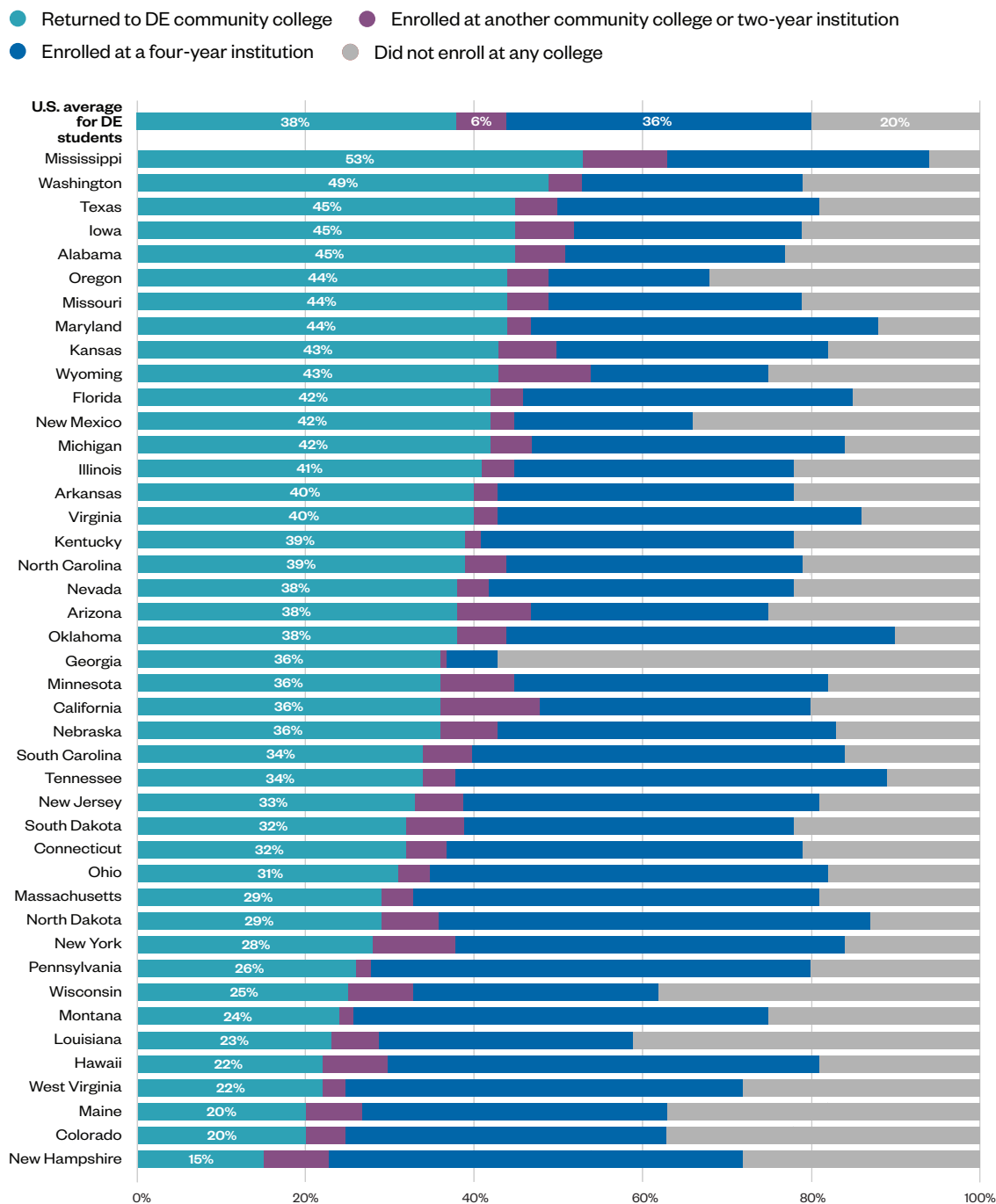
Figure 17 shows the rate at which community college dual enrollees in the fall 2015 entry cohort reenrolled for at least one term at their DE community college in the first year after their expected high school completion. We chose the “any reenrollment” definition to illustrate these findings because it is more inclusive than the “two consecutive terms” definition (see Figure 7) and because it provides a state-by-state view of the potential yield of former DE students for community colleges.

In most states, a third or more of community college DE students reenrolled at the same community college after high school.

In 28 states, more than a third of community college dual enrollees returned to the same community college in the first year after high school, and in 16 states, the reenrollment rate of community college dual enrollees exceeded 40%. In the top states (Mississippi, Washington, Texas, Iowa, and Alabama), about half of dual enrollees returned for at least one term to their DE community college after high school. Higher reenrollment rates for community college DE students are particularly notable in Texas (45%), Florida (42%), and Illinois (41%), which had some of the larger numbers of community college DE students nationally (see Figure 12). Other states with large numbers of community college dual enrollees, such as New York, Ohio, and California, had relatively lower reenrollment rates among these students (28%, 31%, and 36%, respectively).

Figure 17.

Distribution of College Enrollment (Within First Year After High School) of Community College DE Students, by State



Note. This figure shows enrollment rates for students who started DE in fall 2015 while they were in 11th or 12th grade. States with fewer than three community colleges enrolling DE students in the fall 2015 entry cohort or states with fewer than 30 DE students are excluded from this figure. Thus, Alaska, Delaware, the District of Columbia, Indiana, Rhode Island, Utah, and Vermont do not appear.

Reflections on Findings

The need to strengthen the transition from high school to college—long plagued by challenges that disproportionately affect students from low-income families and groups underrepresented among college completers—has become more urgent as concerns mount about the affordability and value of higher education. In the past decade—even before the pandemic—enrollments declined at many colleges, and fewer high school graduates are immediately enrolling in postsecondary education.¹² And yet, the number of high school students taking DE courses has steadily grown during that time, offering more and more students a potential head start on college while they are still in high school.

In this report, we followed a national cohort of high school DE students into postsecondary education in the years immediately following high school. We found that students who took DE courses in high school enrolled in college at rates well above the national average for high school graduates and had higher award completion rates compared to recent high school graduates without prior DE.

Since our analyses are descriptive and do not account for student characteristics such as prior academic achievement, it may not be surprising that students with DE enrolled in college and completed postsecondary awards at higher rates than those who did not take DE courses in high school—because DE programs tend to attract students who are already college bound. However, our findings echo similar results from experimental and quasi-experimental studies of DE programs that find positive effects of DE participation on postsecondary outcomes when considering student background characteristics.

We build on previous research by showing state-by-state differences on a common set of metrics describing the outcomes of DE students, raising further questions about how different states' approaches to DE policy, programmatic design, and implementation may explain differences in postsecondary outcomes. And while overall postsecondary outcomes are strong for DE students—four in five DE students in our analysis continued in postsecondary education in the year after high school, and 42% completed a college award four years after high school—there is still substantial room for improvement nationally and in most states to fully realize the potential of DE as a head start on a college degree.

Our findings also align with numerous studies nationally and in specific states identifying various groups of students as underrepresented in DE coursework, including low-income, Black, and Hispanic students as well as English learners, students with disabilities, students whose parents did not attend college, and multiracial, American Indian, and Native Hawaiian and Pacific Islander students. DE programs—sometimes referred to as “programs of privilege”—have typically been designed and implemented with a focus on high school students from more affluent backgrounds and have been shown to exclude low-income, Black, Hispanic, and other marginalized groups through policies, practices, or misbeliefs concerning which students should take DE courses (Taylor et al., 2022). In many states and localities, some students and families face significant barriers—such as paying out of pocket for DE courses, taking a high-stakes standardized test for placement (despite research questioning the validity of such tests), relying on their high school to have teachers qualified to teach college courses, or seeking out information on their own about DE opportunities.

The fact that low-income, Black, and Hispanic DE students in our national sample had such strong postsecondary outcomes—including, for Black students, high enrollment rates at very selective universities and higher shares completing bachelor’s degrees in highly remunerative fields such as STEM—further warrants a commitment to equalizing access to and participation in DE for these and other underserved groups. And given that four-year-institution dual enrollees had among the strongest postsecondary outcomes but were the least likely to be low-income, Black, or Hispanic, our findings also identify the need for four-year institutions to expand access to and equalize participation in DE.

Our findings also call into question the view that taking community college courses does not adequately prepare students for a bachelor’s degree program and may derail them from pursuing one. While the large majority of students take DE coursework at a community college, postsecondary award completion rates four years after higher school are high compared to students without DE overall and among underrepresented groups, and they are particularly strong among Black DE students. However, more work is needed not only to close gaps in access to DE but also to expand postsecondary success through DE and into college after high school. As this report shows, low-income and Hispanic students are not only underrepresented among dual enrollees but are also not earning a bachelor’s degree at the same rate as other DE students. And fully a third of Black and Hispanic former DE students are still enrolled in college having not yet earned an award within four years of graduating high school. This raises the question of what colleges and states can do to help these DE students complete sooner.

If we are to reverse declining college participation rates and redress decades of inequities in the transition from high school to college for our least served students, state and institutional actions and substantial investments are required to broaden the benefits of DE by continuing to strengthen DE programming and by increasing access for those who are currently underrepresented. Our findings show that DE coursework can be a strong lever for increasing equity in college participation and award attainment. DE opportunities thus need to be made more equitably accessible for all students.

Recommendations for State and College Leaders

In this report, we provide national and state-by-state benchmarks on a set of common metrics assessing DE student outcomes in the years immediately following high school. State and college leaders can use their own NSC data to replicate analyses matching our data definitions and tracking periods to further compare their results and set improvement targets. We recommend the following next steps for state and college leaders seeking to examine their own data using the metrics and results presented in this report.

State Leaders

State leaders should review outcomes for their state’s DE programs alongside measures of DE access and participation by student demographic subgroups available from public sources in order to set clear targets for broadening postsecondary participation and completion through DE.

- They can use these and other data to identify whether their major challenges primarily involve unequal access to DE opportunities, lower postsecondary outcomes among former DE students, or both.
- They can use results from their state to help make the case for further investments to expand DE opportunities, particularly for underserved schools and communities. In many states, DE is shown to be a strong investment for expanding postsecondary access and attainment. States that have greater barriers to access (e.g., substantial costs associated with taking DE courses) should use these data alongside other measures of access to DE to make the case for further investment to broaden participation.

College and K-12 leaders

College and K-12 leaders implementing DE programs should regularly monitor their students' postsecondary outcomes—categorized by type of DE offering and combined with other data capturing gaps in DE participation—to inform continuous improvement efforts to strengthen outreach and supports for underrepresented groups and underserved high schools.

- College leaders should benchmark their outcomes to other colleges in their state and nationally with a focus on differences in outcomes by race/ethnicity, income, and gender and by other priority student subgroups. The definitions of metrics presented in this report can be used to enhance the consistency with which dual enrollees' outcomes are measured. For instance, many community college leaders are focused on their DE students' reenrollment rates, but before this analysis, there was no national or state-by-state reporting on reenrollment rates at the same community college among DE students. We offer two ways to define reenrollment rates, which colleges can replicate locally to examine their own reenrollment rates, disaggregated not only by student characteristics but also by DE program type and high school partner.
- College and K-12 leaders should review which postsecondary institutions their DE students matriculate at after high school and which majors they enroll in and complete, and then use this information to backward map programmatic pathways and to strengthen transfer and applicability of DE credits. This information can frame conversations among DE partnerships, motivating reforms to strengthen DE as an on-ramp to college and career opportunity.¹³
- College and K-12 leaders should undertake similar analyses with their own NSC data and use the findings to market the benefits of DE coursework—including details on top postsecondary destinations, completion rates, time to completion, and estimated cost savings from DE participation—to prospective students and families. For example, some institutions use NSC's and their own institutional data to share feedback reports with each of their high school partners each year to demonstrate the impact of DE on their partnership. Reports include data on number of DE credits taken, college-going and college completion rates, top colleges attended after high school, and estimated cost savings for higher education due to DE courses taken.¹⁴

Guiding Questions to Examine State Results

For readers involved in dual enrollment policy or programming from particular states, each of the questions below indicates what figure or table in this report can be used to interpret your state's results. More state-level findings and guidance can be found in the [data dashboard](#) accompanying this report.

1 How big is our state's DE program compared to others', and is DE primarily offered by community colleges or four-year institutions in our state?

See Figure 12 on p. 27

2 What's the college-going rate for DE students, and do DE students primarily go to community colleges or four-year institutions after high school?

See Table 2 on p. 30

What percent of our state's community college DE students reenroll at the same community college after high school?

See Figure 17 on p. 43

3 How many DE students complete a college credential in four years after high school?

See Table 2 on p. 30

How does that compare to students without DE?

See Table 3 on p. 32

How do we compare to other states?

See Table 2 on p. 30

What is the highest award DE students complete in larger numbers?

See Table 2 on p. 30

What percent of students complete a bachelor's degree in four years?

See Table 2 on p. 30

What percent of students are still enrolled with no degree four years after graduating from high school?

See Table 2 on p. 30

4 What share of our DE students are from low-income neighborhoods?

See Table 4 on p. 34

How do our college-going and completion rates for low-income DE students compare to the U.S. average for all DE students and to other state outcomes for low-income students?

See Figure 14 on p. 37

5 What share of our DE students are Black?

See Table 4 on p. 34

Are Black students underrepresented in DE compared to K-12 enrollments? If so, how severely compared to the U.S. average and other states?

Figure 15 on p. 39

How do our college-going and completion rates for Black DE students compare to the U.S. average for all DE students and to other states for Black DE students?

Figure 15 on p. 39

6 What share of our DE students are Hispanic?

See Table 4 on p. 34

Are Hispanic students underrepresented in DE compared to K-12 enrollments? If so, how severely compared to the U.S. average and other states?

See Figure 16 on p. 41

How do our college-going and completion rates for Hispanic DE students compare to the U.S. average for all DE students and to other states for Hispanic DE students?

See Figure 16 on p. 41

Endnotes

1. Authors' calculations combining Fink's (2023) calculations on fall enrollments among 17-year-olds and under with NSC reporting (NSC, 2024) on enrollments for students in the same age group from public two-year and primarily associate-degree-granting baccalaureate (PAB) institutions.
2. Our analysis of DE students' postsecondary pathways and outcomes focuses on the vast majority of dual enrollees who started as 11th and 12th graders: 403,916 students, making up 88% of all DE students in our fall 2015 entry cohort, whom we track for up to four years (or eight terms) after their expected high school completion. See Appendix A for more information about data and methods.
3. As shown later in Figure 8, the college-going rate of DE students attending any postsecondary institution within four years of high school completion increases to 90%.
4. The U.S. Department of Education estimates that 67%–70% of the high school classes of 2016 and 2017 were enrolled in college in the first fall following high school graduation (NCES, 2023).
5. A half percent or fewer of dual enrollees matriculated at “other two-year institutions” within one year overall and across all subgroups; for readability, we exclude this result from Figures 4 and 5.
6. Appendix Table B1 provides descriptive statistics for the sample of DE students who matriculated within the first year after high school and for non-DE (18–20) students. As with the initial sample of students, dual enrollees who matriculated within one year after high school were less likely to be Black or Hispanic than non-DE (18–20) students (7% vs. 11% and 14% vs. 17%, respectively) and more likely to be White (64% vs. 53%), though they were also more likely to be from a low-income neighborhood (30% vs. 25%). Furthermore, while the non-DE (18–20) group is limited to students who started their postsecondary education in the fall of 2015, dual enrollees who matriculated within the first year after high school were in either the 2016-17 or 2017-18 academic year, depending on their high school grade group (see Appendix Figure A1).
7. In an analysis estimating an upper bound for reenrollment rates, we examined any enrollments at the DE institution up to four years after expected high school completion. We found that 47% of community college dual enrollees and 37% of four-year-institution dual enrollees reenrolled at least once at their DE institution within four years after high school.
8. The numbers in the leftmost column of Figure 8 add up to 41% due to rounding, but the more precise rate is 42%.
9. Due to rounding, the sums of these numbers for Hispanic and male students in Figure 8 do not match the numbers given here, which represent more precise rates.

10. For instance, experimental research on the effects of participating in ECHS programs has found significantly higher rates of high school graduation, college enrollment, and college degree completion (Berger et al., 2013; Song et al., 2021).
11. Similar information is not available for students from low-income neighborhoods. For more details on the analysis of the CRDC data by race/ethnicity, see Fink (2018), Fink (2021), and Xu et al. (2021).
12. The national college-going rate peaked among 2015 high school graduates, 69% of whom immediately enrolled in the first fall after high school. For 2019 graduates (pre-pandemic), the rate dropped to 66%, and since the onset of the pandemic, it has dropped even further to 62% among 2022 high school graduates (NCES, 2023).
13. For more examples of how colleges and K-12 partners are implementing DE as an on-ramp to college and career opportunity, see CCRC's Dual Enrollment Equity Pathways (DEEP) framework (Fink & Jenkins, 2023a) and the partnerships profiled in Fink et al. (2023).
14. See an example of Lorain County Community College's dual enrollment dashboard, including similar metrics to those presented in this report using NSC data, on p. 55 of CCRC and The Aspen Institute's *Dual Enrollment Playbook* (Mehl et al., 2020).
15. According to the NSC, about two thirds of reported students have a high school graduation date.
16. "Other two-year institutions" enrolled fewer than 1% of all the fall 2015 entry cohort dual enrollees (2,609 students).
17. Data from the students enrolled at four-year institutions distinguish the term at which students stopped being dual enrollees and became postsecondary students. However, the community college students' data do not include this information for the DE students. Considering this limitation, we use the richness of the four-year institutions' data to identify what percent of dual enrollees we would be misclassifying as postsecondary enrollees within the first year after high school under our definition of expected post-high-school enrollment. Our calculations suggest only 1% of four-year-institution DE students would be misclassified as postsecondary enrollees. We expect this rate to be similarly low among community college dual enrollees.
18. After careful review of the relationship between student age and high school grade, we found that our approach to estimating high school grade based on student age had slightly higher misclassification rates in some states (closer to 5%) than in others (around 0%). We suspect that this is based on age requirements for kindergarten entry: Some states require students to be 5 years old by September 1st before starting kindergarten, whereas others require that students be 6 years old by January 1st of their kindergarten year.

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Appendix A. Data and Methods

Data Sample

We use NSC data on all students who entered a community college or four-year institution for the first time in the fall of 2015, including those who participated in DE programming. The NSC data allow us to distinguish between three groups of students:

- **Current dual enrollment (DE) students:** High school students enrolled at a postsecondary institution for the first time ever in fall 2015. We follow NSC’s definition and flag a student as a dual enrollee when their high school diploma date is after their start date at the postsecondary institution. If high school diploma information is not available,¹⁵ DE status is based on the student’s age at the start date of the term; that is, if the student is younger than 17.7 at the start of the fall 2015 enrollment, they are considered a dual enrollee.
- Note that DE status is not defined by the type or number of courses students take and that Advanced Placement (AP) and International Baccalaureate (IB) courses are not considered DE. Rather, it is based solely on enrollment at a postsecondary institution occurring while the student is expected to be in high school. Among student entrants in the fall of 2015 at a postsecondary institution, 457,922 were DE high school students. Many of our analyses focus on DE students who in fall 2015 were in 11th or 12th grade (representing 88% of all DE students).
- **Prior dual enrollment (PDE) students:** New undergraduates entering postsecondary education after high school in fall 2015 with prior records of postsecondary activity indicating they fell under the DE student definition before their post-high-school college entry. In fall 2015, 379,576 of the students starting either at a community college or at a four-year institution had some prior DE. This report does not focus on this group of students for the main analysis. Metrics on progression and award completion for community college students with prior DE are presented in Velasco et al. (2024).
- **Non-dual-enrollment (non-DE) students:** Students who were new undergraduates—and not in high school—who enrolled at a postsecondary institution for the first time ever in fall 2015. These students were 17.7 years old or had high school graduation dates prior to fall 2015 and did not have prior postsecondary enrollments from high school DE. Among students enrolled in the fall of 2015, 2,243,612 were non-DE students.

The NSC data track term-to-term college enrollment for all students in the fall 2015 entry cohort through fall 2021, including information on the institution of enrollment and award completion. Thus, we can construct year-by-year student postsecondary enrollments and outcomes for both DE and non-DE students. The bulk of our analysis concentrates on DE students and includes results for a subset of younger non-DE students entering postsecondary education recently after high school graduation—at ages 18–20, which we label non-DE (18–20) students—to benchmark our findings when helpful. Our data come from 832 community colleges and 1,256 four-year institutions that enrolled at least one DE student starting in the fall of 2015.

Institutional and Student Characteristics

Our report examines DE student outcomes by several institutional and student characteristics defined below. Table B1 provides descriptive statistics for these characteristics among DE students overall and by college sector of DE, as well as for non-DE students in the fall 2015 entry cohort.

- Institution sector:** We classify the institutions serving DE students into community colleges and four-year institutions using IPEDS and Carnegie Classification information from the 2021-22 academic year. Four-year institutions include public, private nonprofit, and private for-profit sectors. We include as community colleges all state-defined community colleges, excluding branch campuses, military colleges, less-than-two-year colleges, and adult and career technical centers and colleges. For brevity, we call the latter assorted group “other two-year institutions” (even though some of them focus on programs lasting less time).¹⁶ Using this information, we classify community college DE students as those who first enrolled at a community college while in high school in the fall of 2015 and four-year-institution DE students as those who first enrolled at a four-year institution while in high school in the fall of 2015.
- Institution selectivity, urbanicity, and program mix:** For further analysis of DE outcomes by type of postsecondary institution, we follow NSC’s definition and draw on the 2015 Carnegie Classifications to categorize four-year institutions into three groups: very selective, moderately selective, and nonselective. We use the urbanicity definition from the 2015 Carnegie Classifications, which categorize institutions as rural, urban, or suburban/town. Finally, we follow NSC’s definition and categorize community colleges by program mix as primarily academic or primarily occupational based on the ratio of academic to occupational awards conferred, with the category “primarily academic program mix” being assigned to institutions with fewer than 50% of occupational credentials awarded.
- Student race/ethnicity and gender:** We use data provided by NSC on student racial/ethnic group and gender at the start of the fall 2015 term. Among dual enrollees, only 8% of students are missing race/ethnicity information, and only 3% are missing gender information. Among non-DE students, these rates rise to 12% and 6%, respectively.
- Student neighborhood income:** To capture student income, we use a measure of student neighborhood income that links students’ home addresses to U.S. Census tract-level estimates of household median income. This metric classifies households according to three income levels: low-, medium-, or high-income. See Velasco et al. (2024) for a detailed description of how this metric is constructed. Thirteen percent of the DE students have missing information on their neighborhood income, whereas 16% of the non-DE students are missing the income proxy information.
- Student age group:** NSC identifies student age according to the beginning date at the starting institution in the fall of 2015 for community college students and by January 1st of 2016 for students starting at four-year institutions. We use this information to calculate student age by September 1st of 2015, and we create four age groups for DE students: students who are 13.7 years old or older but less than 14.7 years old, students who are 14.7 years old or older but less than 15.7 years old, students who are 15.7 years old or older but less than 16.7 years old, and students who are 16.7 years old or older. Among dual enrollees, 88% of students are 15.7 years old or older. We refer to such students as students in the 11th and 12th grade of high school; all non-DE students are older than 17.7 years old.

Measuring Expected High School Graduation Among Dual Enrollment Students

The available NSC data do not provide an exact measure of high school completion for the majority of students. Therefore, we derive an expected high school completion date based on student age; that is, we assume students' high school grade based on their age by September 2015 and use it to estimate their expected first year post-high-school completion. We tested these estimates against subsets of our data where we were able to distinguish pre- from post-high-school terms and found that this method misclassifies only about 1% of students.^{17 18}

To estimate the expected high school graduation dates and therefore identify when students would be expected to start postsecondary education after high school, we used the following rationale based on students' ages at the start of the fall 2015 term:

- DE students aged 16.7 or older were in 12th grade; therefore, their first term after high school should be fall 2016.
- DE students aged 15.7 to 16.7 were in 11th grade; therefore, their first term after high school should be fall 2017.
- DE students aged 14.7 to 15.7 were in 10th grade; therefore, their first term after high school should be fall 2018.
- DE students aged 13.7 to 14.7 were in 9th grade; therefore, their first term after high school should be fall 2019.

Figure A1 shows postsecondary participation in each term among DE students by estimated age and high school grade group. The figure illustrates our approach to identifying when DE students finished high school and converted into after-high-school postsecondary entrants. Each panel—one per age/grade grouping—shows a substantial change in enrollment patterns from the estimated end of high school to the start of post-high-school enrollment, primarily illustrated by large gains in four-year-institution enrollment. For instance, of the 12th graders who started DE in fall 2015, 71% took DE at a community college and 29% at a four-year institution. In the fall of 2016, most of the postsecondary enrollments among this group shifted to four-year institutions (45%), presumably driven by high school graduates enrolling at a four-year institution in the first fall after high school. Another 31% enrolled at a community college in the first term after high school, and 24% were not enrolled at any postsecondary institution.

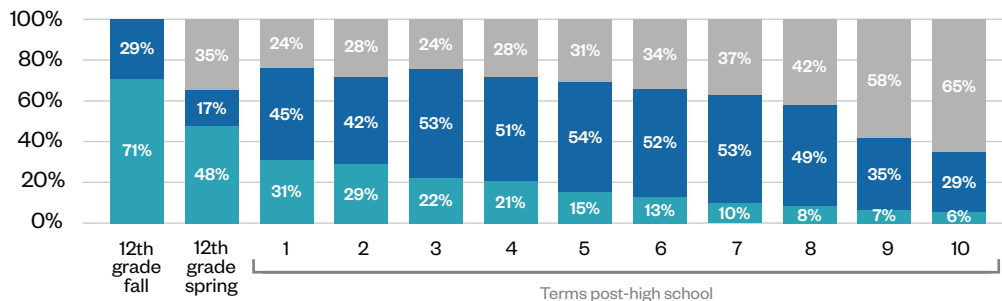
Our analysis of DE students' postsecondary pathways and outcomes focuses on the vast majority of dual enrollees who started as 11th and 12th graders: 403,916 students, making up 88% of all DE students, whom we track for up to four years (or eight terms) after their expected high school completion.

Figure A1.

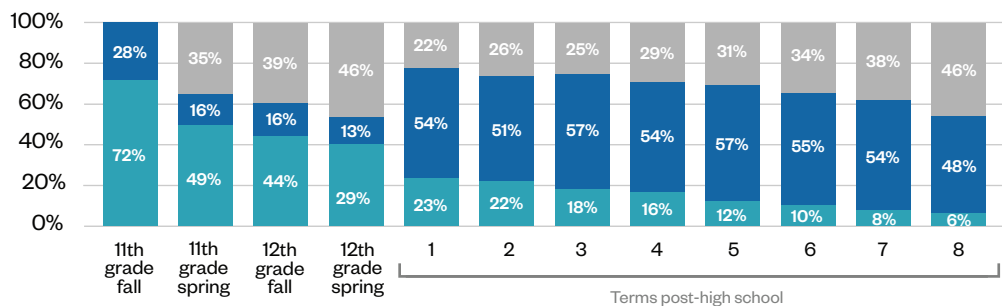
Fall 2015 Entry Cohort: Term-to-Term Enrollment Distribution in Postsecondary Institutions of DE Students by Estimated High School Grade of First DE Enrollment

● Community college ● Four-year institution ● Other two-year institution ● Not enrolled

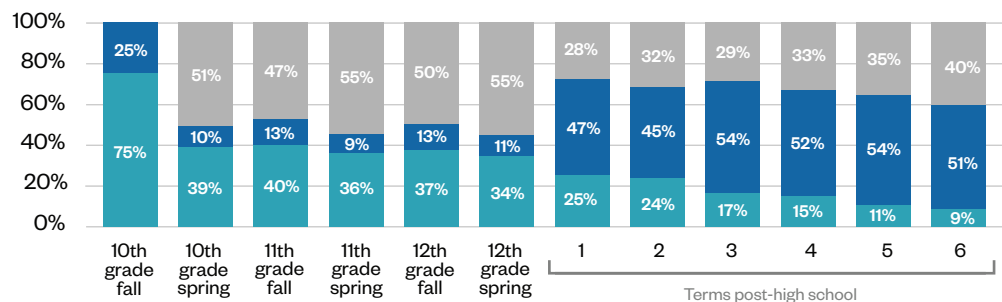
A. 12th grade (n = 271,370)



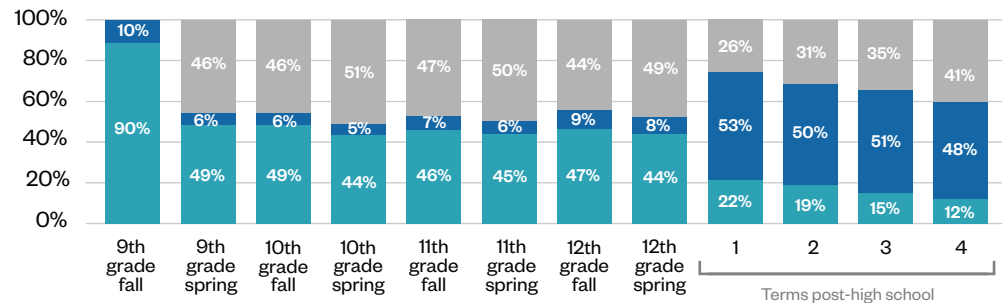
B. 11th grade (n = 132,546)



C. 10th grade (n = 35,639)



D. 9th grade (n = 12,277)



Appendix B. Additional Descriptive Statistics

Table B1.

Fall 2015 Entry Cohort: Characteristics of DE Students, by DE College Sector, Who (Within First Year After High School) Enrolled in a Postsecondary Institution and of Non-DE (18–20) Students

Characteristic	Current dual enrollees who matriculated within first year after high school			Non-DE (18–20) students (n = 1,491,063)
	All dual enrollees (n = 326,499)	Enrolled in community colleges (n = 229,966)	Enrolled in four-year institutions (n = 96,533)	
Race/ethnicity				
Asian	4%	4%	5%	6%
Black	7%	7%	7%	11%
Hispanic	14%	15%	10%	17%
International student	1%	1%	1%	1%
Native American	1%	1%	1%	1%
Native Hawaiian/Pacific Islander	0%	0%	0%	0%
Two or more races	4%	4%	4%	4%
White	64%	63%	66%	53%
Missing	6%	5%	7%	6%
Gender				
Female	59%	58%	59%	50%
Male	39%	39%	39%	45%
Missing	2%	2%	3%	5%
Student neighborhood income				
Low-income	30%	31%	27%	25%
Middle-income	21%	22%	21%	18%
High-income	36%	35%	40%	45%
Missing	13%	13%	12%	12%
Age in years (fall 2015)				
13.7-year-olds	0%	0%	0%	0%
14.7-year-olds	0%	0%	0%	0%
15.7-year-olds	33%	33%	32%	0%
16.7-year-olds or older	67%	67%	68%	100%
Missing	0%	0%	0%	0%



CCRC studies community colleges because they provide critical access to postsecondary education and are uniquely positioned to promote equity and social mobility in the United States. Our mission is to conduct research that helps these institutions strengthen opportunities and improve outcomes for their students, particularly those from underserved populations.