



# REVIEW OF DUAL-ENROLLMENT PARTICIPATION AND OUTCOMES IN NEW JERSEY

by Muazzam Toshmatova, Ph.D. and Jimmy Green

Prepared by the Heldrich Center for Workforce Development | April 2024

# Executive Summary

Dual-enrollment programs (DEPs) allow high school students to enroll in college-level courses concurrently, bridging the gap between high school and college education. While enrolled, high school students earn credits toward their high school diploma and college degree. This study uses longitudinal data from the New Jersey Statewide Data System (NJSDS) to analyze trends in dual-enrollment participation and the subsequent postsecondary educational outcomes of dual-enrolled students. This analysis is the first in a series on the topic of dual enrollment and conducts an initial review of the two primary data sources on the topic. These initial results demonstrate the growing enrollment in DEPs from 2012 to 2019.

A longitudinal analysis of high school students who took college-level courses in the 2012–13 academic year shows that 50% continued their education at postsecondary institutions in New Jersey and completed college with various levels of degrees. Within the degree awardees, 69% earned a bachelor's degree. The report also highlights the racial and gender disparities in dual-enrollment participation, indicating that a higher percentage of female students (60%) enroll in DEPs compared to their male counterparts (40%). In terms of racial demographics, white students constitute the majority (52%), followed by 12% Hispanics, 6% Asians, and 6% Blacks (academic year 2015–16). However, the report also reveals a rising participation rate among Black and Hispanic students in more recent years. Specifically, between the 2012–13 and 2020–21 academic years, the proportion of Black and Hispanic students enrolled in DEPs has nearly doubled. Taken together, these findings provide evidence that dual enrollment serves as an effective strategy in promoting postsecondary education for all students. Future reports in this series will build on this work to conduct a longitudinal analysis of dual-enrollment participants and develop a comparison group of non-dual-enrolled students, starting with a cohort of students in high school and analyzing their postsecondary, financial aid, and employment outcomes.

## Introduction

DEPs represent collaborative initiatives involving high schools and colleges, allowing high school students, typically in their junior and senior years, to register for college-level courses. These programs offer students a rigorous academic experience while enabling them to earn college credits while completing their high school education.

DEPs provide students with distinct advantages, including tuition savings and robust academic preparation for college-level coursework. They facilitate a smoother transition to higher education, with research indicating increased college enrollment rates (Cowan & Goldhaber, 2015; Lichtenberger et al., 2014; Taylor, 2015) and improved degree completion (Troutman et al., 2019). DEPs also equip students with essential skills and knowledge, allowing them to embark on their careers sooner (Flynn, 2021). Moreover, DEPs serve as a powerful tool in reducing educational inequities.

States have taken efforts to inform students, particularly those from underrepresented racial and socioeconomic backgrounds, about dual-enrollment opportunities, thereby fostering greater participation (Pretlow & Wathington, 2014; Young et al., 2013; Austin-King et al., 2012).



While high school students can choose to take college credits informally, formal dual-enrollment programs are collaborations between secondary and postsecondary institutions. In New Jersey, data on participation is reported through the New Jersey Department of Education (NJDOE) and the Office of the Secretary of Higher Education (OSHE). The eligibility requirements for New Jersey's DEPs vary across participating agencies and may include being a current junior or senior in high school, meeting specific grade point average criteria, obtaining recommendations from guidance counselors and parents, and others (Jobs for the Future, n.d.; Stevens Institute of Technology, n.d.). Financial support and reduced tuition rates are available for some programs, but financial aid options can vary.

Following are some examples of DEPs implemented in New Jersey:

- ▶ *On-ramps to college* allows juniors and seniors to take college-level courses taught by college professors, to enhance college readiness and reduce the need for remedial coursework (On-Ramps to College Working Group, 2020).
- ▶ *STEM Dual Enrollment-Competitive* follows the P-Tech 9-14 model, enabling students to earn both a high school diploma and a two-year postsecondary degree in a science, technology, engineering, and mathematics (STEM) field. The curriculum aligns with industry needs and offers workplace opportunities and internships (Office of Grants Management, n.d.).
- ▶ *Rowan Start* offers 11th- and 12th-grade high school students an opportunity to enroll in a select number of courses at Rowan University at a discounted rate. If the high school collaborates with Rowan University, students earn high school and college credits through the same coursework (Rowan University, n.d.).
- ▶ *Early College Program* provides an opportunity for high school juniors and seniors to enroll in courses at Bergen Community College. It enables students to experience a collegiate learning environment, improve their academic skills, and prepare for a successful transition to higher education after graduation (Bergen Community College, n.d.).

New Jersey DEPs are committed to promoting equity and inclusion in educational opportunities. They aim to break down barriers that have historically hindered access to higher education for underrepresented and economically disadvantaged students. Through these programs, students from diverse backgrounds, regardless of socioeconomic status, race, ethnicity, or location, gain equal access to transformative educational experiences (NJDOE, 2022).

Yet, when the broader U.S. perspective is examined, challenges emerge. Despite the benefits of DEPs, accessibility issues persist. Disparities, especially those related to socioeconomic and racial factors, remain significant. Shivji and Wilson (2019) highlight such inequities, revealing that students from socioeconomically disadvantaged backgrounds, influenced by parental educational attainment and racial factors, are less inclined to engage in postsecondary education. The study shows a gap: students with parents who have a bachelor's degree or higher enroll at a rate that is nearly 1.3 times higher than those with parents who only have a high school diploma. Moreover, when considering race, white and Asian students are 1.3 times more likely to pursue postsecondary courses than their Black counterparts (Shivji & Wilson, 2019). The New Jersey Dual Enrollment Study Commission Report also found that dual-enrollment participation was not equitable across all student groups. In comparison to the state average, students with disabilities, Hispanic and Black students, economically disadvantaged students, and migrant and English Language Learners were all below the average rate of participation (NJDOE, 2022).

Despite the growing prevalence and potential benefits of dual enrollment, research on the effectiveness of such programs in New Jersey has remained limited and sparse. A study conducted by the New Jersey Dual Enrollment Commission indicates that the enrollment of 11th and 12th graders increased from 2016–17 to 2020–21, with the exception of 2017–18. The enrollment percentage in at least one dual-enrollment course experienced a decline to 13.3% in the 2017–18 academic year, down from 17.3% in the previous year, before rebounding to 19% in the subsequent year. In the absence of further context or data, it is not possible to discern the root cause of this decline in participation in 2017–18 from this analysis.





Overall, while the participation of students seems to be increasing in terms of the number of students, the percentage of high schools in 2020–21 reporting at least one student enrolled in a dual-enrollment class was only 67%, which is lower than the target set by the New Jersey Dual Enrollment Commission. This statistic underscores the pressing need for an expanded and more accessible dual-enrollment program across New Jersey (NJDOE, 2022). Using data from NJSDS, this study is the first in a series to assess the participation rate in dual-enrollment programs, as well as postsecondary educational outcomes of students who have participated in dual enrollment.

## Methodology

This study employs data from NJSDS. As noted, this study begins a series of analyses through an exploratory review of dual enrollment in New Jersey. The first part of this study focuses on examining participation trends in DEPs. The analysis brings together data on high school dual-enrolled students and college-enrolled students for the academic years from 2012–13 to 2020–21. Furthermore, the report highlights the dual-enrollment participation rate by students' demographic characteristics such as gender, race, and ethnicity. The study utilizes the NJDOE and OSHE data sources to compare dual-enrollment reporting and student characteristics.

The research questions for this study are:

- ▶ What is the participation rate in dual enrollment, as measured by the proportion of high school dual-enrolled students among the total population of college-enrolled students and the proportion of high school dual-enrolled students among the total high school student population?
- ▶ Does the participation rate vary by race/ethnicity and gender?
- ▶ What are the postsecondary outcomes of DEP participation, as measured by college enrollment and degree/certificate completion rates?

The first phase of this study examines dual-enrollment participation among high school graduate cohorts. Dual enrollment is indicated if a student participated in dual enrollment in their junior or senior year of high school. This information is gathered from both the NJDOE and OSHE data sources. In addition to dual-enrollment status, this report presents participation by gender, race and ethnicity, free and reduced-priced lunch status, and special education status.

The analysis for the first phase of the study relies on data from NJDOE's Postsecondary Student Extracts and Graduation Extracts. These extracts are a fusion of demographic and educational information from the New Jersey Standards Measurement and Resource for Teaching (NJ SMART) data system. The Graduation Extracts document all students from a specific graduation cohort who completed their studies within a four-year timeframe. Integrating these graduate extracts with the postsecondary data ensures the inclusion of all four-year graduates from a specific year in each cohort's dataset.



In identifying dual-enrolled students, the focus is on those indicated as dual enrolled in either the 11th or 12th grade, as per the extract. For demographic analysis, there were two options that existed in the extracts: most recent data or data from the time of the students' entry (entering data). Because the entering data were more complete, they were given preference over the most recent data, which had a higher level of missing information. This demographic data include critical factors such as gender, race/ethnicity, status regarding free or reduced-price lunch, and special education classification at the time of entering the school.

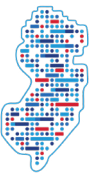
The second phase of the study examines the postsecondary educational outcomes of dual-enrolled students by focusing on students who participated in DEPs in the 2012–13 academic year, referred to as the "2012–13 cohort". The source of these data is OSHE's enrollments and completions data from its Student Unit Record (SURE) collection. To identify dual-enrolled students, the study considers those students with records of college-level coursework who are New Jersey residents. Initially, the study aimed to exclude dual-enrolled students who were matriculated, categorized as college students, and identified as not being first-time students. However, after a thorough examination of the data, certain inconsistencies emerged. First, a significant number of individuals with dual-enrollment indications were also recorded as matriculated students. Given the substantial number of records with both dual-enrollment and matriculation status, researchers chose not to impose a restriction that dual-enrolled students must not be matriculated. Second, a significant number of dual-enrolled students was reported as concurrently enrolled in college (as first-year students, sophomores, etc.). Finally, instances were observed where dual-enrolled students were also classified as stopout or transfer students. In these cases, they were treated as dual enrolled if their high school graduation year was greater than the academic year. However, researchers could not use high school graduation year as the primary source of information to define dual-enrolled students as this information is generally only reported for new students in the semester that they are considered first time or new to the institution in the SURE file reported to OSHE.

Similarly, college-enrolled students are defined as students pursuing associate or bachelor's degrees who are first-time and full-time students. To quantify the enrollment into college and completion of college data, the educational path of the 2012–13 cohort was tracked from 2013–14 through 2020–21. The report also provides insight on completion rate by degree types and majors.

The numbers presented in this report should be interpreted with awareness that they may underestimate the total count of students enrolled and who have completed college education.

The OSHE SURE collection only includes institutions of higher education located in New Jersey. This limitation makes it challenging to track the educational paths of New Jersey dual-enrolled high school graduates entering postsecondary institutions outside the state. Furthermore, even within New Jersey, the data are not representative of the entire universe of college and university students.

Given these limitations and the inconsistencies in the postsecondary data discussed previously, the analysis has revealed variations when comparing outcomes derived from the high school data and postsecondary data. Nevertheless, this report offers a foundational assessment of dual-enrollment participation and postsecondary educational outcomes in New Jersey, upon which future studies using NJSDS can be built.



# Results

## Participation in Dual-Enrollment Programs in New Jersey

This section documents trends in dual-enrollment participation between the 2012–13 and 2020–21 academic years. Additionally, it provides an analysis on dual-enrollment participation broken down by gender and race/ethnicity.

### Overall Dual-Enrollment Participation

Both the NJDOE and OSHE data reveal a significant increase in dual-enrollment participation during the period of this study, which decreased around the pandemic and has subsequently begun to rebound.

When reviewing trends in Table 1, there was a substantial increase in dual-enrollment participation between the 2013–14 and 2018–19 academic years. The rate of dual-enrolled students grew by nearly four times, increasing from roughly 7% of the graduating class in the 2013–14 school year to approximately 28% in the 2018–19 school year. Participation rates dropped from approximately 28% prior to the pandemic in the 2018-19 year, to 18% in 2019–20 and further to 11% in 2020–21. Despite this decrease, the 2020–21 participation rate still represents an increase from the initial proportion of students who were dual enrolled in the first year of the analysis. This illustrates the impact of external disruptions on educational trends, particularly in dual-enrollment programs.

Table 1: Distribution of Dual-Enrollment Participation Among High School Graduates by Academic Year, 2013–14 to 2020–21

Graduation Year	Not Dual Enrolled	Dual Enrolled	No Dual Enrollment Status Listed	Count
2013–14	92.5%	7.4%	0.1%	94,057
2014–15	86.1%	13.8%	0.1%	95,146
2015–16	83.3%	16.5%	0.2%	95,732
2016–17	80.0%	19.8%	0.2%	96,277
2017–18	77.3%	22.0%	0.8%	96,955
2018–19	71.4%	28.1%	0.5%	96,588
2019–20	80.9%	18.3%	0.8%	96,084
2020–21	89.2%	10.7%	0.1%	96,513

Source: NJ SMART Submission Data



At the postsecondary level, the trend mirrors NJDOE data on dual-enrollment participation. Initially, there was a significant uptick in the percentage of dual-enrolled students among the college-enrolled population, which more than doubled from 2.3% in 2012–13 to 5.1% by 2020–21 (see Table 2). However, the 2019–20 academic year experienced a slight decline, presumed to be due to the disruptions and changes to reporting during the COVID-19 pandemic.

**Table 2: Dual-Enrollment Participation in the Higher Education Data: Annual Numbers for the 2012–13 to 2020–21 Academic Years (Fall and Spring Enrollments)**

Academic Year	Dual-Enrolled Students	College-Enrolled Students	First-Year College Students	Percentage of Dual-Enrolled Students (dual enrolled/college enrolled) * 100
2012–13	8,177	357,608	69,630	2.3%
2013–14	10,765	351,443	68,637	3.1%
2014–15	8,649	344,101	66,597	2.5%
2015–16	12,582	338,791	66,081	3.7%
2016–17	11,525	330,780	65,280	3.5%
2017–18	14,731	326,850	64,876	4.5%
2018–19	16,277	322,805	65,444	5.0%
2019–20	15,227	321,821	63,994	4.7%
2020–21	15,656	306,622	56,959	5.1%

Source: OSHE SURE Enrollments

Supporting these findings, Figure 1 displays the participation trend, showing that despite a decrease in overall college enrollment, there was an increase in dual-enrollment participation from 2012–13 to 2018–19. It is important to note that while the trends are similar between the OSHE and NJDOE data sources, the number of students captured differs. For instance, in the peak year (2018–19), there were 27,241 dual-enrolled students reported in the NJDOE data, and 16,277 dual-enrolled students reflected in the OSHE data. This variation can be attributed to several factors, including the involvement of out-of-state institutions of higher education offering dual-enrollment programs at New Jersey high schools. Additionally, New Jersey institutions that do not participate in SURE but have dual-enrollment programs with New Jersey high schools may contribute to the divergence in the data. Moreover, differences in how institutions record and report dual enrollment could also contribute to the observed variation. This highlights the complexity of the dual-enrollment data and presents an opportunity for future qualitative exploration to determine other causes for this variation.

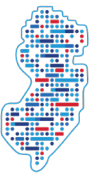
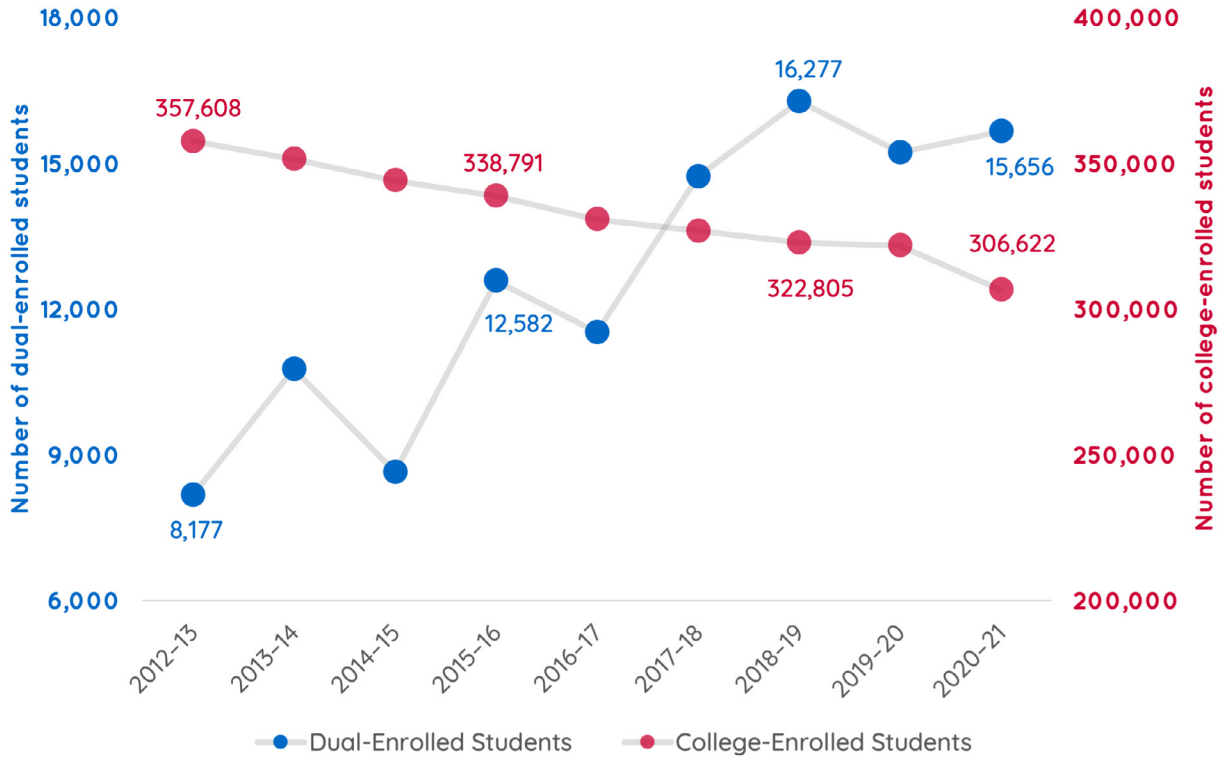


Figure 1: Dual-Enrolled and College-Enrolled Students, 2012-13 to 2020-21



Source: OSHE SURE Enrollments

## Participation in Dual-Enrollment Programs by Student Demographic Characteristics

Promoting access to dual-enrollment programs is based on the assumption that early academic experience in college-level courses is beneficial for students from marginalized backgrounds. This is especially true for those who are racial minorities or who come from low-income families, as such groups typically have less positive postsecondary outcomes and often face steep obstacles in their educational journeys. Thus, DEPs serve as a strategic intervention to disparities in college achievement.

This section examines whether dual-enrollment participation varies by demographic characteristics.<sup>1</sup>

### By Gender

Again, the two primary data sources for dual-enrollment participation show similar trends when reviewing participation rates by gender. Within the NJDOE data, findings reveal slightly higher participation by female students in dual-enrollment programs, a pattern that remained consistent throughout the eight-year period. Specifically, in the beginning (2013-14) and end (2020-21) years of this timeframe, there is a marked difference in participation rates, with female students accounting for approximately 53% of enrollments, compared to 47% for male students (see Figure 2).

<sup>1</sup> Due to data access challenges, the OSHE analysis only considers dual-enrolled students who were observed enrolling in college-level courses between the 2012-13 and 2018-19 academic years. The choice of these academic years is due to insufficiency of some information on students' demographics in years after 2019.



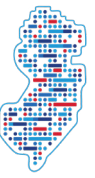
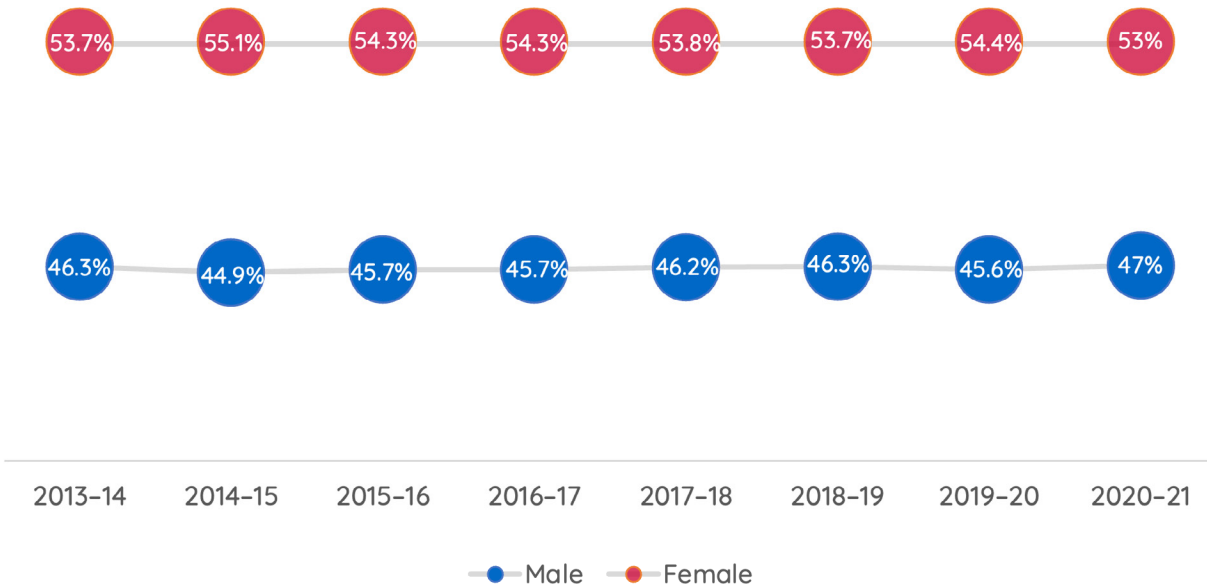


Figure 2: Percentage of High School Graduates Participating in Dual-Enrollment Programs in New Jersey by Gender, 2013-14 to 2020-21 Academic Years

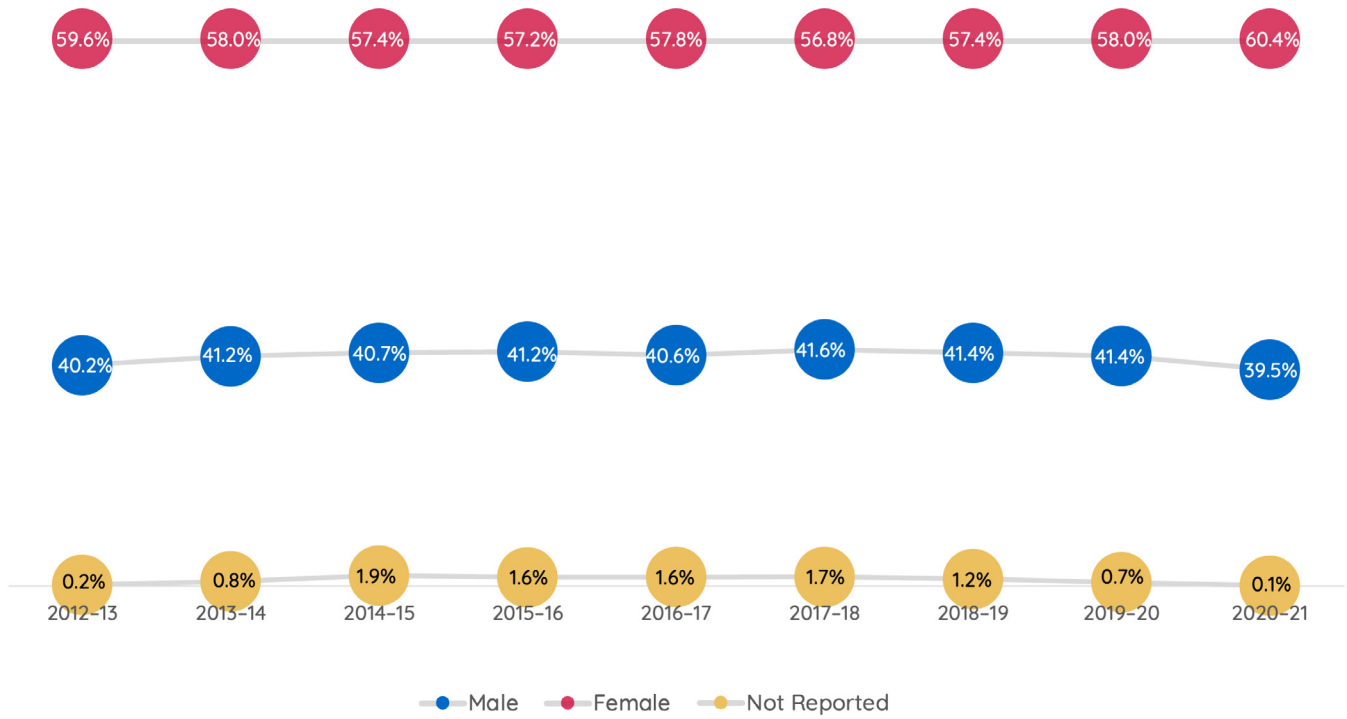


Source: NJ SMART Submission Data

Of data available at the higher education level, the trend of higher female participation continues. Here, female students demonstrate participation rates ranging between 57% and 60%, significantly outpacing the 40% to 42% participation rates of male students (see Figure 3). This continuation of the trend from high school to postsecondary education underscores a broader inclination of female students toward dual-enrollment programs across both sources.



Figure 3: Percentage of Students Participating in Dual-Enrollment Programs in New Jersey by Gender, 2012-13 to 2020-21 Academic Years<sup>2</sup>



Source: OSHE SURE Enrollments

### By Race and Ethnicity

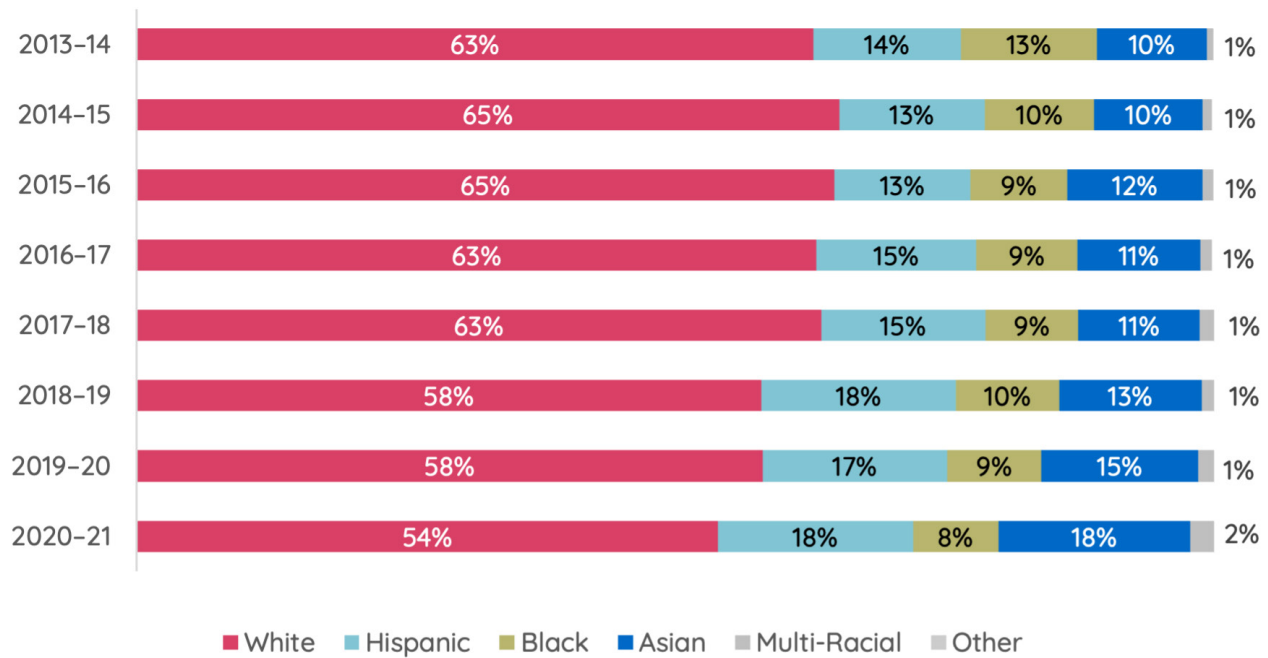
When comparing dual-enrollment participation by race and ethnicity, this analysis reveals that most dual-enrolled students are white, although the composition of students has become more diverse over time. However, there has been a notable decrease in their share over this period — a nearly 10 percentage-point decline. Figure 4 shows the proportion of dual-enrolled students by race/ethnicity. In 2014, there were 4,363 white students out of a total of 6,971 dual-enrolled students, which equates to approximately 63%. Moreover, by 2021, even though the number of white students increased to 5,544, the total number of dual-enrolled students rose to 10,307. This growth in total enrollment led to the percentage of white students decreasing to around 54% of those who are dual enrolled. Therefore, when these figures are considered as percentages of the total student population, the proportion of white students decreased over time.

In contrast, Hispanic and Asian students saw an increase in their enrollment numbers and proportions during the same period. This trend, however, was not universal across other racial groups. Black student participation in dual-enrollment programs declined markedly, with enrollment percentages dropping five percentage points from 13% in 2013-14 to 8% in 2020-21 (see Figure 4). Over the study period, on average, 61% of dual-enrollment participants were white, 15.4% were Hispanic, 12.6% were Asian, and 9.5% were Black. Comparatively, on average, white students comprised 49.9% of the student body not enrolled in dual-enrollment programs. Hispanic students represented approximately 24%, Asian students were about 9%, and Black students made up around 16% of the non-dual-enrolled population.

<sup>2</sup> The percentages were calculated using gender data from the OSHE enrollment table. It is important to note that the NJDOE and OSHE analyses were conducted independently for this report, and OSHE dual-enrollment records were not matched with NJDOE data. Future reports on this topic will link data across both data sources.



**Figure 4: Race and Ethnicity Proportions Within Dual-Enrollment Participants Among New Jersey High School Graduates, 2013-14 to 2020-21 Academic Years**



Source: NJ SMART Submission Data

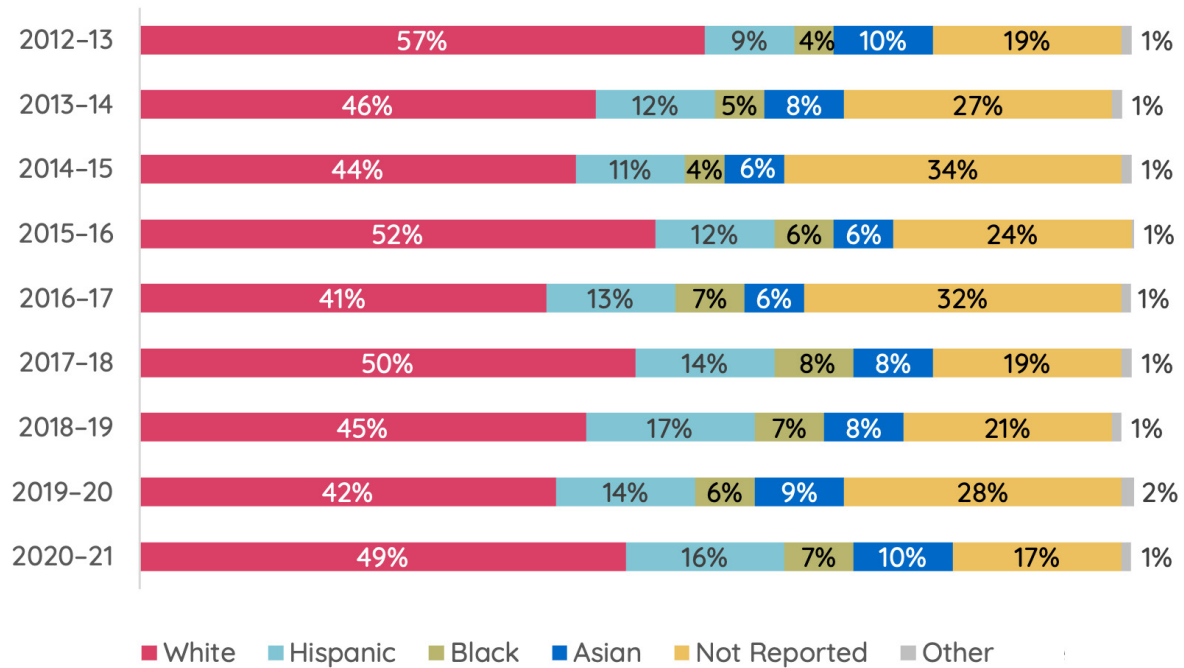
Note: Due to low percentages, American Indian, Alaska Native, Native Hawaiian, and Pacific Islander are categorized as "Other" in this analysis. However, readers should note that "Other" does not appear in this figure as the percentages were 0% for each year analyzed.

In the postsecondary context, the participation of dual-enrolled students was examined across different racial and ethnic categories. White students initially had the majority participation rate, comprising approximately 57% of dual-enrolled students in 2012-13 (see Figure 5). However, their share gradually declined to 42% by 2019-20 and then increased to 49% in 2020-21.

Interestingly, the participation of Hispanic and Black students in dual-enrollment programs significantly increased, growing by approximately 1.8 times between 2012-13 and 2020-21. While the trend for Hispanic students aligns with the results obtained using NJDOE data, for Black students the opposite trend is observed, which is likely explained by the data inconsistencies discussed previously. Overall, this trend indicates a rising interest and participation in dual-enrollment programs among these historically underrepresented groups.



**Figure 5: Race and Ethnicity Proportions Within Dual-Enrollment Participants Among New Jersey High School Graduates in New Jersey Colleges, 2012–13 to 2020–21 Academic Years**



Source: OSHE SURE Enrollments

Note: Due to low percentages, American Indian, Alaska Native, Native Hawaiian, and Pacific Islander are categorized as "Other" in this analysis.

### By Special Education Status

In New Jersey, approximately 18.5% of the student population is listed as having a disability. In the 2021–22 school year, this included nearly 260,000 students. Among the most recent graduating high school class included in this analysis, over 13,000 students were listed as having a special education classification. Those with classifications may have them due to hearing impairment, autism, attention-deficit/hyperactivity disorder, or visual or speech impairments, among other disabilities. The data on the participation of special education students in dual-enrollment programs from the 2013–14 to 2020–21 academic years reveals a disparity in participation when compared to the overall student population. In the 2013–14 academic year, approximately 9% of students in dual enrollment were classified as special education. However, by the 2020–21 academic year, this number had decreased to 5%. (See Figure 6.) This downward trend in the participation rate of special education students in dual-enrollment programs is notable, especially when compared to the figures observed among non-dual-enrolled students.

In contrast, among graduates who did not participate in dual enrollment, the proportion of special education students remained significantly higher across these years. About 15%, on average, of the non-dual-enrolled group were classified as special education. This is in comparison to the 5% to 9% range observed in the dual-enrolled group. This disparity highlights a persistent trend: throughout the years in question, the non-dual-enrolled group consistently had a higher proportion of special education students compared to the dual-enrolled group.

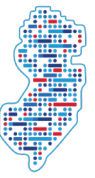
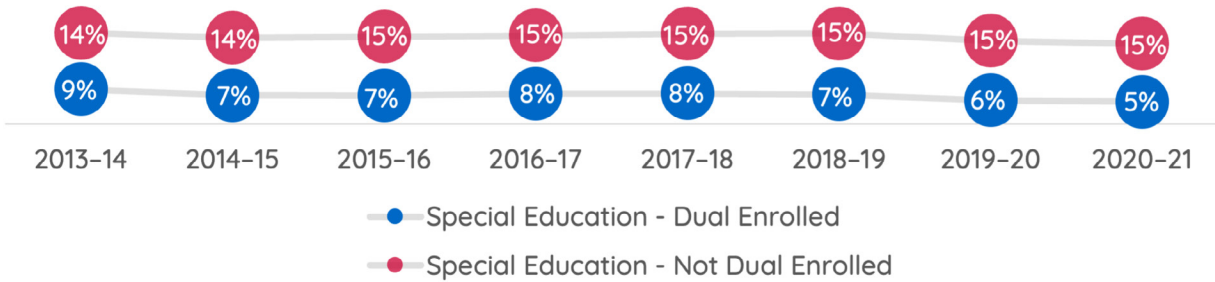


Figure 6: Proportion of Dual-Enrolled and Non-Dual-Enrolled Students Who Are Classified as Special Education Among High School Graduates, 2013-14 to 2020-21 Academic Years

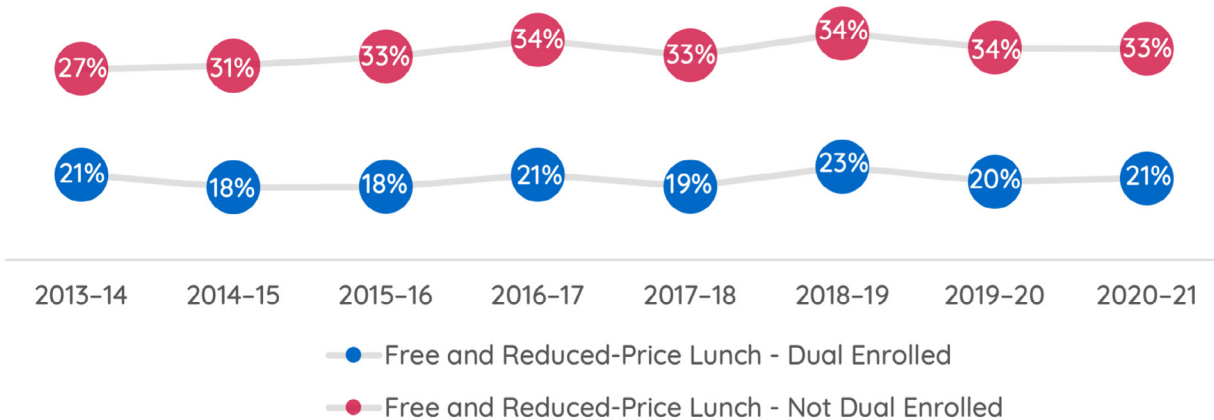


Source: NJ SMART Submission Data

### By Free or Reduced-Price Lunch Status

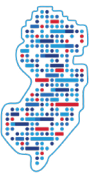
In a review of the literature (Shivji & Wilson, 2019), a significant difference emerges between dual-enrolled graduates and those not enrolled in such programs regarding free or reduced-price lunch status. Among the dual-enrolled graduates, the percentage qualifying for free or reduced-priced lunch has remained relatively constant, hovering around 20%. In contrast, for graduates who were not dual enrolled, on average, 32% qualified for free or reduced-price lunch from the 2013-14 to 2020-21 academic years. (See Figure 7.) This disparity suggests that socioeconomic factors play a significant role in an individual's decision to enroll in dual-enrollment programs.

Figure 7: Percentage of High School Graduates Participating in Dual-Enrollment Programs in New Jersey by Free and Reduced-Price Lunch Status, 2013-14 to 2020-21 Academic Years



Source: NJ SMART Submission Data





## Postsecondary Outcomes of Dual-Enrolled Students

Previous research has shown that participation in DEPs is positively associated with college enrollment and the college completion rate (Cowan & Goldhaber, 2015; Troutman et al., 2019). Reflecting the findings of the literature, this study also found similar results among New Jersey dual-enrolled students.

The remaining analysis is limited to individuals who were dual-enrolled students in the 2012–13 academic year and uses the data available from OSHE. To assess postsecondary outcomes, the analysis tracks the educational path of the 2012–13 cohort from 2013–14 through 2018–19, examining college enrollment and completion outcomes. Furthermore, the analysis is enriched by examining the distribution of college completion by degree level and major, to provide a multifaceted view of the educational outcomes for dual-enrolled students.

### College Enrollment and Completion

Enrollment and completion status are defined as follows:

- ▶ **Enrollment:** Students who enrolled in postsecondary institutions any time during the 2013–14 through 2018–19 academic years.
- ▶ **Completion:** Students who graduated with a degree from below associate to graduate level.

Table 3 shows that in the 2012–13 academic year, 8,177 high school students took college-level courses. Of these students, approximately 50% (4,097) enrolled in New Jersey postsecondary institutions between the 2013–14 and 2018–19 academic years. While the data indicate that only half of dual-enrolled students chose New Jersey colleges, it is crucial to note that this number serves as a lower-bound or potential underestimate. Historically, New Jersey has experienced a notable outmigration rate among high school graduates. Between 2012 and 2018, the percentage attending out-of-state colleges ranged from 35% to 37% compared to all New Jersey residents attending college (Holcomb et al., 2020).

Turning to the college completion rate, the results demonstrate that 78% (3,183) of college-enrolled students were awarded degrees ranging from less than a two-year award to the graduate level (see Table 3). This graduation rate for dual-enrolled students closely aligns with previous findings. Specifically, a national study conducted by the National Student Clearinghouse Research Center tracked the six-year outcomes of the 2007 cohort of first-time students, finding that dual-enrolled students exhibit a higher college completion rate than students with no dual-enrollment experience (66.01% vs. 54.2%). Importantly, this rate includes degrees earned at both two- and four-year institutions (Shapiro et al., 2013).

**Table 3: 2012–13 Dual-Enrolled Cohort, College Enrollment and Completion Rates from 2013–14 to 2018–19**

Dual-Enrolled Cohort	Total	Enrolled	Completed
2012–13	8,177	4,097	3,183

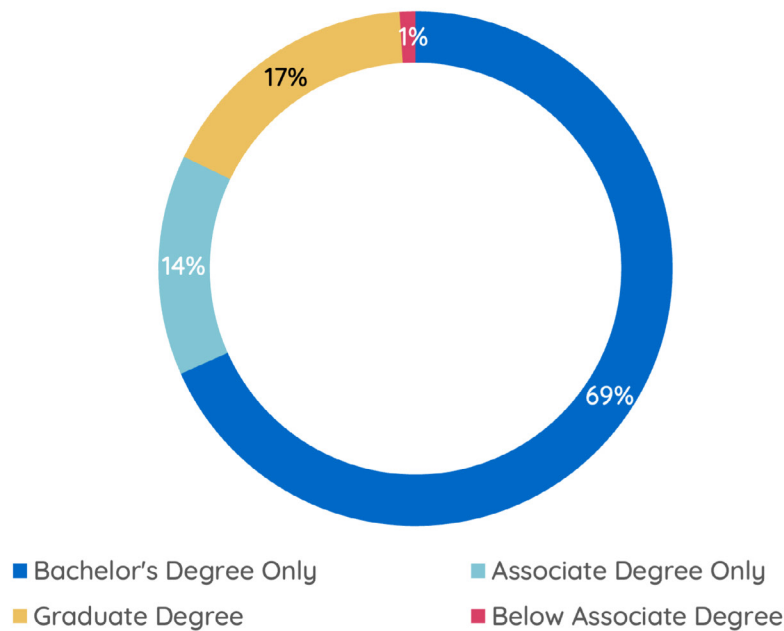
Source: OSHE SURE Enrollments and Completions



## Completion Characteristics by Degree Level

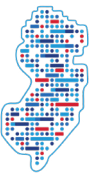
The subsequent step in the analysis involves examining the distribution of degree levels achieved by dual-enrolled students among those students who successfully completed a postsecondary degree after high school within the study timeframe. Figure 8 presents this distribution, revealing a significant percentage of dual-enrolled students (approximately 68.8%) who graduated with bachelor's degrees as their highest level of education. Figure 8 shows that around 17% of degree awardees pursued graduate-level degrees. Taken together, 85.8% of dual-enrolled graduates completed college with at least a bachelor's degree.

Figure 8: College Completion by Degree Type



Source: OSHE SURE Enrollments, Completions, and Awards

While a substantial percentage of students achieved bachelor's and graduate degrees, only a small percentage (roughly 13.6%) received associate degrees, and an even smaller percentage (about 0.6%) were granted less than two-year awards (or certificates). These findings align with the assumption that dual-enrolled students are academically prepared, which shows that they tend to perform well in college.

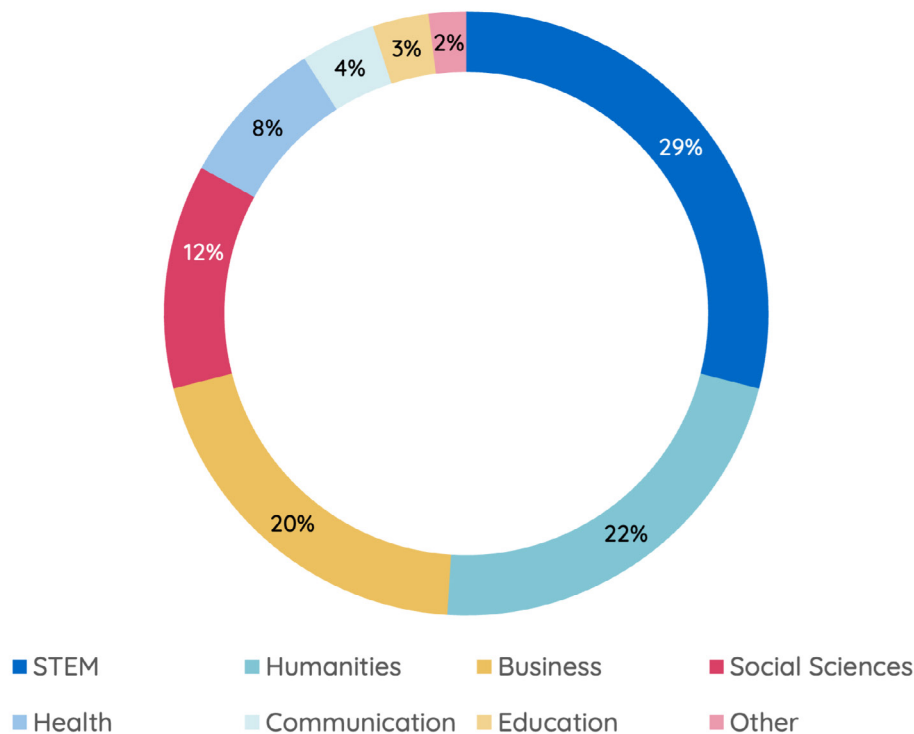


## Completion Characteristics by Category of Program of Study

The final set of analyses examine completion rate by major grouping of students' identified program of study. All observed academic programs in the data (defined by the six-digit Classification of Instructional Programs code) were combined into eight broad discipline-based categories: business, management, marketing, and related support services ("Business"); health professions and related clinical sciences ("Health"); education ("Education"); humanities ("Humanities"); social sciences ("Social Sciences"); science, technology, engineering, and math ("STEM"); communication ("Communication"); and trade and other miscellaneous fields ("Other").<sup>3</sup>

Figure 9 displays the completion rates for the 2012-13 dual-enrolled cohort across these eight major categories. This portion of the analysis is limited to students who graduated with a bachelor's degree as their highest level of education. As Figure 9 shows, the most popular major among all degrees awarded is STEM, with a proportion of 29%. This is followed by Humanities at 22%, Business at 20%, Social Sciences at 12%, and Health at 8%. In contrast, Communication, Education, and other majors display a lower proportion.

Figure 9: 2012-13 Dual-Enrolled Cohort, Bachelor's Degree Completion by Major Distribution



Source: OSHE SURE Enrollments and Completions

<sup>3</sup> The complete aggregation process is as follows: business, management, marketing, and related support services ("Business"); health professions and related clinical sciences ("Health"); education ("Education"); area, ethnic, cultural, and gender studies; personal and culinary services; foreign language, literature, and linguistics; legal profession and studies; English language and literature/letters; liberal arts and sciences, general studies and humanities; multi/interdisciplinary studies; parks, recreation, leisure, and fitness studies; leisure and recreational activities; philosophy and religious studies; theology and religious vocation; security and protective services; public administration and social services professions; visual and performing arts; and history ("Humanities"); family and consumers sciences/human sciences; psychology; and social sciences ("Social Sciences"); agriculture, agriculture operations, and related sciences; nature resources and conservation; architecture and related sciences; computer and information sciences and support services; engineering; engineering technologies/technicians; biological and biomedical sciences; mathematics and statistics; military technologies; physical sciences; and sciences technologies/technicians ("STEM"); communication, journalism, and related programs; communication technologies/technicians and support services ("Communication"); and construction trade; mechanic and repair technologies/technicians; precision production; transportation and material moving; and others ("Other").



## Conclusion

New Jersey actively promotes access to postsecondary education by fostering partnerships between high schools and postsecondary institutions, facilitating the provision of dual-enrollment courses to high school students. In the pursuit of an increasing college education rate, comprehending the efficiency of DEPs is crucial. Using rich administrative data from NJSDS, this research underscores the importance of implementing DEPs. The findings indicate that participation in DEPs increased in the recent period, having a positive benefit on postsecondary education attainment. Furthermore, the analysis reveals an increase in participation across diverse demographic groups, underscoring the inclusive benefits of these programs.

Reflecting on the results detailed previously in this report, it is evident that a significant proportion of dual-enrolled students in New Jersey have achieved notable success in postsecondary education. This analysis shows that the majority of these students are progressing to complete four-year college degrees. Further, this report delves into the changing demographic landscape of dual enrollment. While the findings indicate a predominant representation of female and white students, there has been a significant and encouraging increase in the enrollment of Hispanic and Black students. This shift reflects a more diverse and inclusive participant base in dual-enrollment programs.

However, despite these positive trends emerging from this analysis, there remains a pressing need to address the goals set forth by the Dual Enrollment Study Commission. These goals are particularly focused on equity and inclusion, aiming to close access gaps for all student groups and increase credential and college attainment for all students by 2028. In light of these objectives, the recommendations proposed by the Dual Enrollment Study Commission are still highly relevant, vital, and applicable. To achieve these targets and make dual enrollment accessible to all groups, the Dual Enrollment Study Commission (2022) proposed the following recommendations:

1. Create a three-year pilot;
2. Continue to allow for program flexibility;
3. Increase state-level support;
4. Clarify terms related to dual-enrollment and early-college programs;
5. Through a longitudinal data system, create a statewide data report to annually evaluate dual-enrollment programs and outcomes; and
6. Develop a toolkit and provide technical assistance to help local educational agencies implement and expand dual enrollment.

This current study, which is a manifestation of recommendation #5 from the commission's report, provides a comprehensive overview of DEP participation in New Jersey, uncovering disparities in participation rates. The identified preliminary findings emphasize the necessity for further research to gain a deeper understanding of the impact of dual enrollment on postsecondary education, with a specific focus on racially minoritized student populations.



In addition, the forthcoming second part of this report will leverage NJSDS data by linking high school and postsecondary datasets, facilitating the creation of a comparison group comprising both dual-enrolled and non-dual-enrolled students. This linkage will enable researchers to conduct a more in-depth analysis of various outcomes, including college enrollment and continuation rates, for dual-enrolled students compared to their non-dual-enrolled counterparts. Furthermore, the linked datasets will allow researchers to evaluate how participation in dual-enrolled programs influences students' likelihood of graduating with a degree or certificate within the study's timeframe. This analysis will provide valuable insights into the long-term educational outcomes associated with dual-enrollment experiences and inform future policy decisions aimed at enhancing postsecondary access and success for all students.

## References

Austin-King, K., Lee, P. N., Little, J. A., & Nathan, J. (2012). *Progress and possibilities: Trends in public high school student participation with Minnesota's dual credit programs 2006–2011*. Center for School Change, Macalester College. <http://centerforschoolchange.org/2012/01/dual-credit-report/>

Bergen Community College. (n.d.). *Early college program*. <https://bergen.edu/academics/k12partnerships/early-college-program/>

Cowan, J., & Goldhaber, D. (2015). How much of a "running start" do dual enrollment programs provide students? *The Review of Higher Education*, 38(3), 425–460.

Flynn, K. (2022). *What is dual enrollment?* Saving for College. <https://www.savingforcollege.com/article/what-is-dual-enrollment>

Holcomb, S., Simone, S., Spear, S., & Hari, M. (2020). *Where students go: Postsecondary student migration in and out of New Jersey*. Heldrich Center for Workforce Development, Rutgers University. <https://njsds.nj.gov/products/where-students-go-postsecondary-student-migration-in-and-out-of-new-jersey/>

Jobs for the Future. (n.d.). *Dual enrollment: New Jersey*. [http://application.jff.org/dualenrollment/view\\_state.php?id=913#:~:text=addresses%20this%20element.-,POLICY%20ELEMENT%3A%20Eligibility%20is%20determined%20by%20a%20combination%20of%20tests,recommendations%2C%20and%20student%20academic%20work.&text=New%20J](http://application.jff.org/dualenrollment/view_state.php?id=913#:~:text=addresses%20this%20element.-,POLICY%20ELEMENT%3A%20Eligibility%20is%20determined%20by%20a%20combination%20of%20tests,recommendations%2C%20and%20student%20academic%20work.&text=New%20J)

Lichtenberger, E., Witt, M. A., Blankenberger, B., & Franklin, D. (2014). Dual credit/dual enrollment and data driven policy implementation. *Community College Journal of Research and Practice*, 38(11), 959–979.

NJDOE. (2022). *Dual enrollment study commission report 2022*. <https://www.nj.gov/education/cte/dualenrollment/docs/DualEnrollmentStudyCommissionReport2022.pdf>

Office of Grants Management. (n.d.). *STEM dual enrollment-competitive*. NJDOE. <https://www.nj.gov/education/grants/opportunities/2020/20-PT01-G06.shtml#:~:text=Under%20this%20model%2C%20a%20high,preference%20commitments%20from%20industry%20partners>





On-Ramps to College Working Group. (2020). *On-ramps to college working group report*. OSHE. <https://www.nj.gov/highereducation/documents/pdf/workinggroups/CreatingOn-RampstoCollege-FullDocuments.pdf>

Pretlow, J., & Wathington, H. D. (2014). Expanding dual enrollment: Increasing postsecondary access for all? *Community College Review*, 42, 41-54.

Rowan University. (n.d.). *Dual credit: Rowan start*. <https://admissions.rowan.edu/admissions-process/alternative-admissions-paths/dual-credit.html>

Shapiro, D., Dundar, A., Ziskin, M., Yuan, X., & Harrell, A. (2013). *Completing college: A national view of student attainment rates, fall 2007 cohort*. National Student Clearinghouse Research Center.

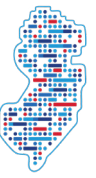
Shivji, A., & Wilson, S. (2019). *Dual enrollment: Participation and characteristics*. National Center for Education Statistics, U.S. Department of Education.

Stevens Institute of Technology. (n.d.). *Dual enrollment program for New Jersey high school students*. <https://www.stevens.edu/dual-enrollment-program-for-new-jersey-high-school-students>

Taylor, J. L. (2015). Accelerating pathways to college: The (in)equitable effects of community college dual credit. *Community College Review*, 43(4), 355-379.

Troutman, D., Hendrix-Soto, A., Cruesere, M., & Mayer, E. (2019). *UT system reports*. University of Texas System. <https://www.utsystem.edu/documents/ut-system-reports>

Young, R. D., Slate, J. R., Moore, G. W., & Barnes, W. (2013). Dual credit enrollment: A multiyear study of gender and ethnic differences. *Urban Studies Research*, 1-7.



## Acknowledgments

This report was written by Muazzam Toshmatova, Ph.D., Postdoctoral Fellow, and Jimmy Green, Research Project Manager at the Heldrich Center for Workforce Development. Khudodod Khudododov, Ph.D., Research Project Manager, provided data analysis support for this research. The report was reviewed by Laurie Harrington, Executive Director and Stephanie Walsh, Ph.D., Assistant Director of Research. Robb C. Sewell, Assistant Director of Communications, was the editor and graphic designer.

## About the New Jersey Statewide Data System

The **New Jersey Statewide Data System** (NJSDS) is the State of New Jersey's centralized longitudinal data system for education and workforce data. Its mission is to safely use the state's existing administrative data for evidence-based policymaking. Developed in 2012 through a grant from the U.S. Department of Education, NJSDS creates a single place where state education, postsecondary education, employment, and workforce longitudinal data are securely stored to help stakeholders make data-informed decisions to improve student learning and labor market outcomes. The data system is owned by the State of New Jersey and operated by the John J. Heldrich Center for Workforce Development at Rutgers, The State University of New Jersey. NJSDS is a collaboration between the New Jersey Office of the Secretary of Higher Education, the New Jersey Department of Labor and Workforce Development, the New Jersey Department of Education, and the New Jersey Higher Education Student Assistance Authority.

## About the Heldrich Center for Workforce Development

The **John J. Heldrich Center for Workforce Development** at Rutgers University is devoted to transforming the workforce development system at the local, state, and federal levels. The center, based at the Edward J. Bloustein School of Planning and Public Policy, provides an independent source of analysis for reform and innovation in policymaking and employs cutting-edge research and evaluation methods to identify best practices in workforce development, education, and employment policy. It is also engaged in significant partnerships with the private sector, workforce organizations, and educational institutions to design effective education and training programs. It is deeply committed to assisting job seekers and workers attain the information, education, and skills training they need to move up the economic ladder.

As captured in its slogan, "Solutions at Work," the Heldrich Center is guided by a commitment to translate the strongest research and analysis into practices and programs that companies, community-based organizations, philanthropy, and government officials can use to strengthen workforce and workforce readiness programs, create jobs, and remain competitive. The center's work strives to build an efficient labor market that matches workers' skills and knowledge with the evolving demands of employers.