



# EXPLORING POSTSECONDARY OUTCOMES OF DUAL-ENROLLMENT PARTICIPATION IN NEW JERSEY

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# Abstract

This study explores the educational pathways of New Jersey high school graduates from 2014 and 2015 who participated in dual-enrollment programs. Using data from the New Jersey Statewide Data System (NJSDS), the report compares the experiences of dual-enrolled students with those who did not participate in these programs. The results indicate that students who are dual-enrolled show a higher tendency to pursue higher education immediately after completing high school, especially at four-year universities, and are more likely to graduate within the expected time period. However, the benefits of dual enrollment are not equally accessible, with variations based on economic background, race, and special education status. The study highlights the importance of expanding dual-enrollment opportunities to address these disparities, offering key insights for educators and policymakers focused on promoting equity in educational outcomes.

## Executive Summary

This study uses longitudinal data from NJSDS to explore the postsecondary trajectories of students graduating high school in 2014 and 2015 who participated in dual-enrollment programs. This examination, part of an ongoing series, contrasts the outcomes of students engaged in dual-enrollment programs with their non-participating peers. Dual-enrollment programs offer high school students a head start by allowing them to take college courses that contribute to both their high school and college credit requirements.

The study unpacks the differential effects of dual-enrollment programs across various races and ethnicities, uncovering subtle inequalities influenced by gender, socioeconomic status, and race. The data also highlight how economic barriers affect college enrollment rates.

The key findings show the following:

- ▶ In both the 2014 and 2015 cohorts, dual-enrolled students showed higher enrollment rates at four-year institutions compared to their non-dual-enrolled peers. In 2014, 37.3% of dual-enrolled students enrolled in a four-year institution at any point after high school, compared to 32.4% of non-dual-enrolled students. In 2015, these rates were 39.4% for dual-enrolled students and 31.8% for non-dual-enrolled students. Additionally, dual-enrolled students in both cohorts were approximately five percentage points more likely to seamlessly enroll in a four-year college immediately after high school graduation than their non-dual-enrolled peers.
- ▶ Gender differences were evident in both the 2014 and 2015 cohorts, with female students consistently out-enrolling males in four-year institutions, and the gap widening among dual-enrolled participants. In the 2014 cohort, 24.9% of dual-enrolled females enrolled in four-year institutions compared to 18.9% of males. In the 2015 cohort, the enrollment rates were 25.4% for females and 19.6% for males. These results suggest that dual enrollment tends to benefit female students more in terms of four-year college enrollment.
- ▶ Economic disparities played a role, with non-free-or-reduced-price-lunch (FRPL) students being almost four times more likely to enroll in four-year colleges compared with their FRPL peers. In the 2014 cohort, 33.9% of non-FRPL dual-enrolled students enrolled in four-year institutions, compared with 10% of FRPL dual-enrolled students. In the 2015 cohort, the disparity widened slightly, with 35.9% of non-FRPL dual-enrolled students enrolling in four-year institutions, compared with just 9.1% of FRPL dual-enrolled students. This indicates that the benefits of dual enrollment vary by socioeconomic status.



- ▶ Students who are not part of the FRPL program tend to have substantially higher rates of postsecondary enrollment. In 2015, high school graduates who participated in dual-enrollment programs were nearly four times more likely to enroll in a four-year institution than their peers who received FRPL.
- ▶ White students experienced the most notable benefits from dual enrollment, especially for four-year college enrollment. In the 2014 cohort, dual-enrolled white students were 4.6 percentage points more likely to enroll in a four-year college compared to their non-dual-enrolled peers (25.8% versus 21.2%). In the 2015 cohort, this difference increased to 7.4 percentage points (26.8% for dual-enrolled students versus 19.4% for non-dual-enrolled students). In contrast, the impact for Asian, Black, and Hispanic students was smaller in both cohorts, generally showing a difference of 1.3 percentage points between dual-enrolled and non-dual-enrolled students.
- ▶ Students without special education (SPED) classifications benefited more from dual enrollment compared to their SPED-classified peers, especially in four-year enrollment. In the 2014 cohort, 41.6% of dual-enrolled, non-SPED-classified students enrolled in four-year institutions compared with just 2.3% of SPED-classified students, making non-SPED-classified students approximately 18 times more likely to attend a four-year college. In the 2015 cohort, the gap widened slightly, with 44.7% of dual-enrolled, non-SPED-classified students enrolling in four-year institutions compared with 2.3% of SPED-classified students, indicating that non-SPED-classified students were nearly 20 times more likely to attend a four-year college.

## Introduction

Dual enrollment refers to the experience of high school students who take courses for college credits. Students typically participate in these courses in their junior and senior years of high school, and courses are usually vocational or academically oriented (Lee et al., 2022). Literature suggests that dual enrollment better prepares students for college, promoting student persistence, retention, and enrollment (Lee et al., 2022).

Building upon the foundational work of the New Jersey Dual Enrollment Commission and the preliminary insights offered by the first NJSDS study in this series (Toshmatova & Green, 2024), this report presents a more detailed analysis of dual-enrollment outcomes. The initial NJSDS report on dual-enrollment programs provided a demographic profile of dual-enrollment students, described variations in reporting between school districts and institutions of higher education, and outlined some initial postsecondary outcomes.

This report extends previous profiles by offering a comprehensive longitudinal analysis comparing the trajectories of dual-enrolled high school graduates with their non-dual-enrolled peers. Leveraging individual-level high school records and postsecondary information from NJSDS, this report analyzes outcomes like college enrollment, persistence, degree attainment, and time to completion. The analysis maps the effects of dual enrollment on these outcomes, aiming to inform policy that broadens the impact of dual enrollment and promotes college access and success for students from diverse backgrounds.

Specifically, this study examines how dual enrollment during 11th or 12th grade in New Jersey is associated with key educational outcomes such as persistence from the first to the second fall semester, the attainment of associate or bachelor's degrees, and continuation at the same postsecondary institution where dual-enrollment credits were earned. These outcomes were selected due to dual enrollment's potential influence on both short-term metrics relevant to college access and long-term outcomes like college persistence.



With the backdrop of an increasingly diverse student population and the recognized potential of dual-enrollment programs to serve as an important bridge to higher education, understanding the nuanced impacts of these programs is crucial. Within this context, this study narrows its focus to address the critical question of how dual enrollment specifically influences key educational milestones for New Jersey’s high school students.

## Background

Participation in dual-enrollment programs has seen a notable increase over the past decade. Nationally, dual-enrollment participation grew from approximately 1.16 million in the 2002–03 academic year to 2.04 million in 2010–11, marking a growth of 76% (An & Taylor, 2019; National Center for Education Statistics, 2019). This increase in dual-enrollment participation aligns with a rise in the availability of dual-enrollment courses. However, despite the overall growth, disadvantaged and under-resourced individuals remain underrepresented in dual-enrollment programs. Schools with predominantly white populations and middle- to high-socioeconomic-status students are more likely to participate in dual enrollment compared to schools serving racially minoritized communities and students from lower socioeconomic backgrounds (An & Taylor, 2019).

A recent study by Henneberger et al. (2020) provides insights into how dual enrollment positively affects postsecondary education outcomes and early labor market performance, highlighting the significance of these programs. Specifically, their findings reveal that participation in dual enrollment during the 12th grade significantly increases the likelihood of college enrollment and degree attainment while also enhancing early labor market earnings.

Given the documented disparities in dual-enrollment participation, the findings of Henneberger et al. (2020) raise important questions about the role of dual enrollment in addressing — or potentially exacerbating — educational inequalities. As dual enrollment continues to gain traction as an effective means of advancing education and career readiness, it is essential to evaluate how its benefits are distributed among various social groups. This is of relevance because of evidence showing that while dual-enrollment programs typically benefit students, challenges still exist in ensuring these benefits extend to students from underrepresented and low-socioeconomic-status backgrounds (Henneberger et al., 2020).

New Jersey is taking a pioneering approach to increase access to dual-enrollment programs for high school students, focusing on addressing systemic inequalities that have historically restricted these opportunities. The state’s Dual Enrollment Study Commission laid the groundwork with a strategic plan spotlighting the hurdles, such as cost, logistics, and the variability of credit transferability, that disproportionately affect students from marginalized communities. Central to this effort is the Commission’s 2022 report, which synthesizes research to outline a pathway for more inclusive and accessible dual-enrollment programs (New Jersey Department of Education, 2022).

The Commission’s recommendations have given rise to an innovative pilot program in New Jersey that aims to address these challenges directly, with a focus on improving access for low-income students (Fazelpoor, 2024). By addressing the practical barriers and providing high-quality program models, this initiative represents a significant step toward the equitable expansion of dual-enrollment opportunities in New Jersey.

This report builds upon these foundational efforts by examining the postsecondary outcomes of dual-enrolled students versus their non-participating peers. The goal of this analysis is to uncover how dual enrollment affects educational and career opportunities, particularly for disadvantaged individuals. This study aligns with the Dual Enrollment Study Commission’s goals and adds to the discussion on equitable dual-enrollment practices for all students.





# Methodology

The objective of this study is to analyze the effects of dual-enrollment participation on the postsecondary achievements of high school graduates from the 2014 and 2015 cohorts in New Jersey. By analyzing statewide data, researchers from the Heldrich Center for Workforce Development at Rutgers, The State University of New Jersey followed the educational journeys of these students until 2021. Specifically, researchers monitored the academic journeys of both the 2014 and 2015 cohorts from their high school graduations in the spring of 2014 and 2015, respectively, through to the spring semester of 2021. By adopting this longitudinal approach, a thorough exploration of these students' educational journeys is possible, covering a period of almost seven years for the 2014 cohort and six years for the 2015 cohort.

This study addresses the primary research question:

- ▶ How do the postsecondary enrollment and degree completion rates for associate and bachelor's degrees among dual-enrolled students compare with those of non-dual-enrolled students across different demographic groups?

## **Data Sources**

This analysis utilizes data from NJSDS, incorporating records from three of the system's sources: the New Jersey Department of Education (NJDOE), the Office of the Secretary of Higher Education (OSHE), and the Higher Education Student Assistance Authority (HESAA). The comprehensive dataset includes extensive demographic details, dual-enrollment participation status, and records of postsecondary enrollment and completion.

Data extracted from NJDOE include information regarding high school graduates. These extracts merge demographic and educational details captured by the New Jersey Standards Measurement and Resource for Teaching data system. Specifically, the graduation extracts highlight students from a designated graduation cohort who have completed their studies within a four-year period. Integrating these graduation details with postsecondary data enables the accurate representation of every student who graduated within four years from a specific cohort.

The demographic data used in this study were sourced from NJDOE, reflecting the categories assigned to individuals upon their entry into high school. The research team opted for this early demographic information due to significant gaps in more recent data. The study focuses on key demographic factors such as gender, race/ethnicity, FRPL status, and SPED classification. Additionally, dual-enrollment status was determined by whether a student participated in a dual-enrollment program during 11th or 12th grade.

Data on postsecondary outcomes were derived from OSHE enrollment and completion files and supplemented by records on students' financial aid from HESAA. This comprehensive dataset includes information on students' matriculation, attendance status, enrollment dates, and completion from college, reported by degree awarded and institution level. These datasets provide rich information for constructing metrics relevant to addressing the research questions posed in this report.



# Analytical Approach

This study is descriptive, beginning with an exploration of dual-enrollment participation trends for the 2014 and 2015 cohorts of high school graduates. This initial phase established a basis for further in-depth subgroup analyses, focusing on variations in postsecondary award attainment and degree completion times across different demographic groups, and contrasting dual-enrolled participants with non-dual-enrolled students. An additional component of the analysis examined the impact of financial aid, specifically the Tuition Aid Grant, on the educational pathways of dual-enrolled versus non-dual-enrolled students.

In evaluating the influence of dual-enrollment programs in New Jersey, the report first examines dual-enrollment program participation, defining it as high school students' involvement in college-level courses for dual credit in either 11th or 12th grade. It then assesses postsecondary enrollment in two categories: ever enrolled, referring to students who enroll in a postsecondary institution at any time following high school, and seamless enrollment, defined as students transitioning directly to college the fall after high school graduation. The analysis progresses to credential attainment rates, observing the proportion of students earning associate or bachelor's degrees, and examines the time to degree completion, highlighting the duration between high school graduation and postsecondary credential achievement. Lastly, the report considers institutional continuity, analyzing whether dual-enrolled students enroll in and graduate from the postsecondary institution where they earned dual-enrolled credits, though this is limited by data availability.

While this study leverages a robust and comprehensive dataset merging high school records with postsecondary enrollment and completion data within NJSDS, several limitations must be acknowledged. First, this analysis is limited to students enrolled in postsecondary institutions in New Jersey, potentially excluding those enrolled out-of-state. Second, within New Jersey, data from approximately 40 private, religious, not-for-profit, and for-profit institutions are missing, further limiting the study's scope.<sup>1</sup> These data limitations may lead to an undercount of both dual-enrolled and non-dual-enrolled students in postsecondary institutions. Additionally, if a disproportionate number of dual-enrolled and non-dual-enrolled students attend out-of-state institutions, the results could be biased. These constraints highlight the importance of interpreting these findings cautiously and suggest avenues for future research to address data limitations and enhance the robustness of the study's findings.

## Results

The results below are presented in several sections. First, enrollment status is reviewed, followed by continuity of institution, differences in postsecondary enrollment by dual-enrollment status and demographic characteristics, Tuition Aid Grant receipt, and postsecondary completion.

### **Postsecondary Enrollment Outcomes by Dual-Enrollment Status**

Figure 1 presents postsecondary enrollment outcomes for dual-enrolled and non-dual-enrolled students, separated by institution type (two- and four-year) and cohort year (2014 and 2015). The chart tracks three key stages of postsecondary enrollment: seamless enrollment (referred to as "enrolled in first fall," meaning students who enrolled in the fall immediately after high school), enrolled in first year (students who enrolled during either the fall or spring of the first year after high school), and ever enrolled (students who enrolled at any point following high school graduation).

<sup>1</sup> These also include religious specialty schools such as Talmudic institutions/theological seminaries, proprietary institutions with degree-granting authority, independent two-year religious colleges, and private four-year colleges. The count of non-reporting institutions was calculated by the authors through comparison of institutions reporting to NJ SURE, as documented in the [enrollment data dictionary](#), last updated as of July 2022 with the [New Jersey college and university directory](#), last updated on June 14, 2024.



## Two-Year Institutions

In contrast, non-dual-enrolled students consistently exhibited higher enrollment rates at two-year institutions compared to dual-enrolled students. In 2014, 12.1% of non-dual-enrolled students seamlessly enrolled at a two-year institution, compared to 10.5% of dual-enrolled students, a difference of 1.6 percentage points. In 2015, the gap widened as non-dual-enrolled students maintained a 12% seamless enrollment rate, while dual-enrolled students declined to 9%, creating a three-percentage-point gap.

First-year enrollment at two-year institutions reflected similar trends. In 2014, 14% of non-dual-enrolled students enrolled during their first year, compared to 11.6% of dual-enrolled students, a difference of 2.4 percentage points. In 2015, non-dual-enrolled students remained relatively stable at 14.4%, while dual-enrolled students dropped to 10.6%, increasing the gap to 3.8 percentage points.

The ever-enrolled data highlight a more pronounced difference. In 2014, 18.7% of non-dual-enrolled students had ever enrolled at a two-year institution, compared to 15.4% of dual-enrolled students, showing a 3.3 percentage point difference. In 2015, the gap widened to five percentage points, with 18.8% of non-dual-enrolled students enrolling at some point at a two-year institution, while dual-enrolled students decreased to 13.8%.

## Four-Year Institutions

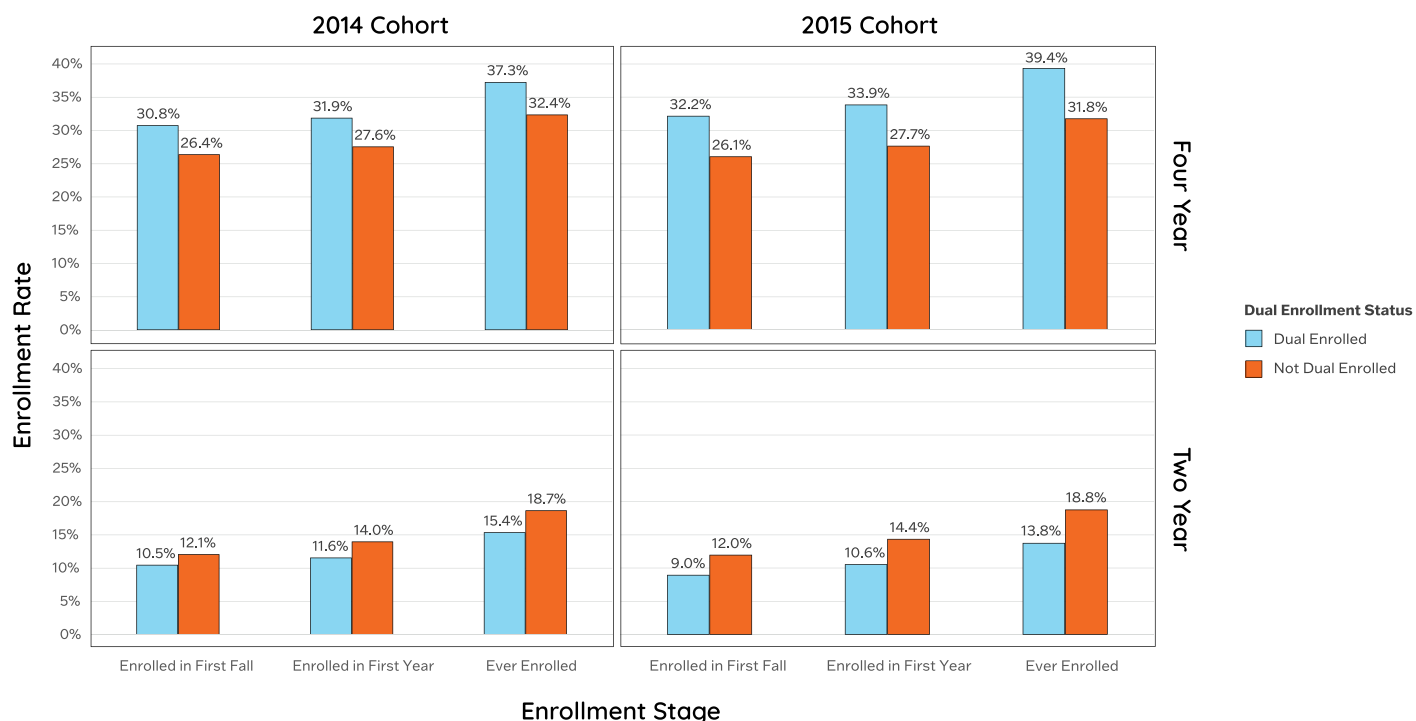
At four-year institutions, dual-enrolled students consistently exhibited higher enrollment rates than their non-dual-enrolled peers. In 2014, 30.8% of dual-enrolled students seamlessly enrolled in the fall immediately after high school, compared to 26.4% of non-dual-enrolled students, representing a difference of 4.4 percentage points. This gap widened in 2015, with 32.2% of dual-enrolled students enrolling seamlessly, compared to 26.1% of non-dual-enrolled students, a difference of 6.1 percentage points.

In 2014, first-year enrollment of dual-enrolled students was 31.9%, compared to 27.6% for non-dual-enrolled students, resulting in a 4.3 percentage point gap. By 2015, the gap had expanded to 6.2 percentage points, with 33.9% of dual-enrolled students enrolling in their first year, compared to 27.7% of non-dual-enrolled students. In the ever-enrolled category, 37.3% of dual-enrolled students in 2014 had enrolled at a four-year institution at some point, compared to 32.4% of non-dual-enrolled students, a difference of 4.9 percentage points. In 2015, the gap widened to 7.6 percentage points, with 39.4% of dual-enrolled students enrolling at a four-year institution at some point, compared to 31.8% of non-dual-enrolled students.

These results indicate that dual-enrollment programs may be particularly effective in promoting transitions to four-year institutions, but less so for two-year institutions. Future research could examine whether dual-enrolled students at two-year institutions are more likely to transfer to four-year institutions over time, and how these patterns evolve in subsequent cohorts.



Figure 1: The Effect of Dual Enrollment on Postsecondary Enrollment Rates: A Comparison Across New Jersey's Two- and Four-Year Institutions



Data Source: NJSDS

### Continuity of Institution

This analysis aimed to uncover the proportion of dual-enrolled students who continued their education at the same institution from which they earned college credits while in high school. To quantify the percentage of students who subsequently enrolled in the same institution as first-year college students, researchers focused on seamless dual-enrolled students. However, the analysis encountered data limitations, particularly a low count of students for whom enrollment in a postsecondary institution before completion from high school is observed. This issue may stem from several limitations, including data-matching challenges, data-entry issues for unique identifiers used for data linkage, out-of-state student postsecondary enrollment, and incomplete reporting of dual-enrollment participation in the source data. Despite these challenges, the findings revealed that among the subset of students from the 2014 cohort for whom enrollment in a postsecondary institution within three years before high school completion was detectable, 36% enrolled at the same institution. Similarly, for the 2015 cohort, a match rate of 34% was observed. It is important to note that these numbers should be interpreted as lower bounds, given the limitations in the data for this analysis. These results suggest that over one-third of dual-enrolled students choose to continue their education at the same postsecondary institution where they had previously earned dual-enrollment credits, possibly due to factors such as a smoother transition, familiarity with the institution, and the potential transfer of credits.





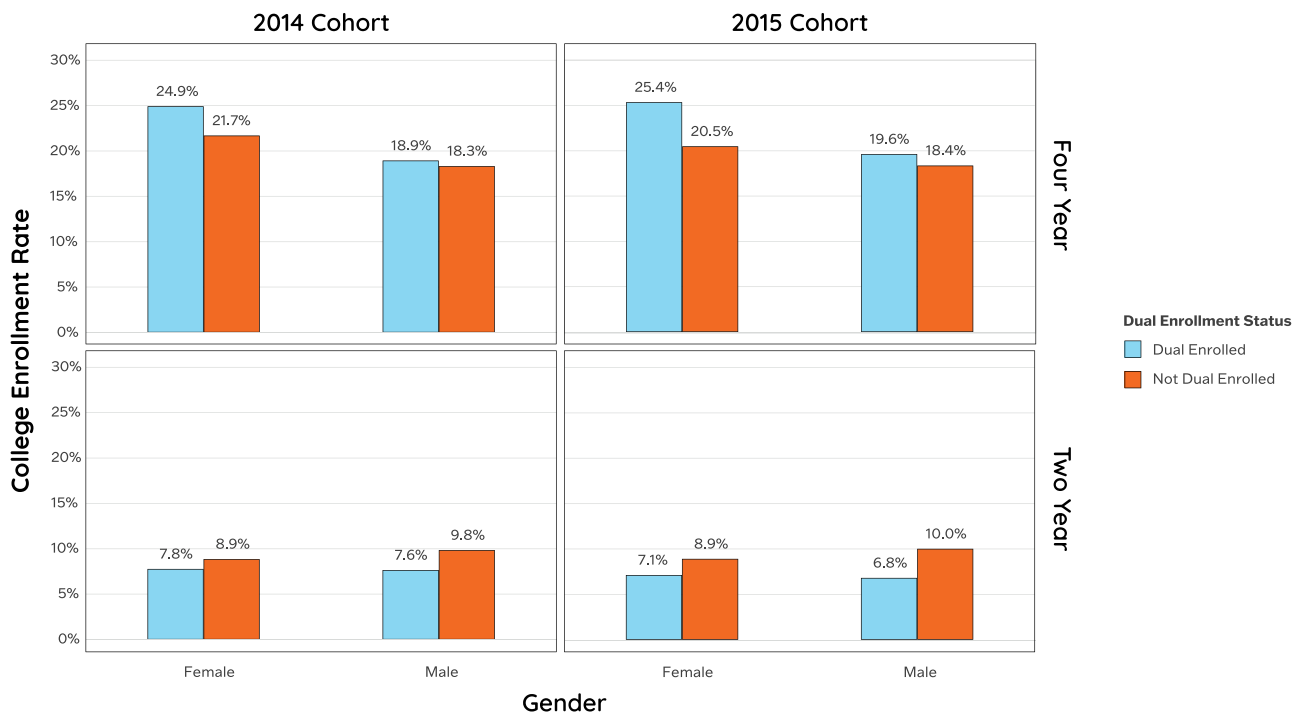
## Differences in Postsecondary Enrollment by Dual-Enrollment Status and Demographic Characteristics

This section presents whether students ever enrolled in postsecondary education following high school completion. This is presented by the institution type in which they enrolled, whether they participated in dual enrollment in high school, and certain demographic and educational characteristics, including gender, FRPL status, race/ethnicity, and whether they were classified as SPED.

### Enrollment by Gender

In both 2014 and 2015, female students consistently had higher enrollment rates in four-year institutions than their male counterparts, regardless of dual-enrollment status. Across both cohorts, female students surpassed male students in both non-dual- and dual-enrollment categories, with the gap widening for those participating in dual enrollment. Dual-enrollment programs appear to further amplify this existing gender gap as female students made greater use of these opportunities to transition into four-year institutions. This pattern also holds true in two-year institutions, although the differences are less pronounced compared to four-year institutions. (See Figure 2.)

Figure 2: Gender Differences in College Enrollment Among Dual-Enrolled and Non-Dual-Enrolled New Jersey High School Graduates



Data Source: NJSDS

The data from the 2014 and 2015 cohorts demonstrate that female students are more likely to enroll in both two- and four-year institutions than males. In two-year institutions, female students maintained higher enrollment rates than males. Among dual-enrolled students in the 2014 cohort, 7.8% of females enrolled in two-year institutions compared to 7.6% of males, creating a modest 0.2 percentage point difference. For non-dual-enrolled students, the gap was larger at .9 percentage points (8.9% of



females versus 9.8% of males). By 2015, the gap for dual-enrolled students expanded more significantly, with 7.1% of females enrolling compared to 6.8% of males, resulting in a 0.3 percentage point gap. While the impact of dual enrollment on two-year institution enrollment is less impactful than for four-year institutions, it still contributes to higher female participation.

Among dual-enrolled students in four-year institutions in the 2014 cohort, 24.9% of females enrolled compared with 18.9% of males, a difference of six percentage points. For non-dual enrolled students, the gender gap was 3.4 percentage points, with 21.7% of females and 18.3% of males enrolling in four-year institutions. By 2015, the gender gap for dual-enrolled students widened, with 25.4% of females and 19.6% of males enrolling in four-year institutions, resulting in a 5.8 percentage point difference. This growing gap suggests that dual-enrollment programs particularly benefit female students, reinforcing their likelihood of transitioning into four-year colleges.

### ***Impact of Dual Enrollment in Amplifying Gender Differences***

Dual enrollment plays a substantial role in accentuating the existing gender disparities in postsecondary enrollment. While both male and female students benefit from dual enrollment, the effect is particularly pronounced for female students, who show higher transition rates into four-year institutions. This indicates that dual enrollment serves as a strong pathway for females to advance to higher education, particularly in four-year programs.

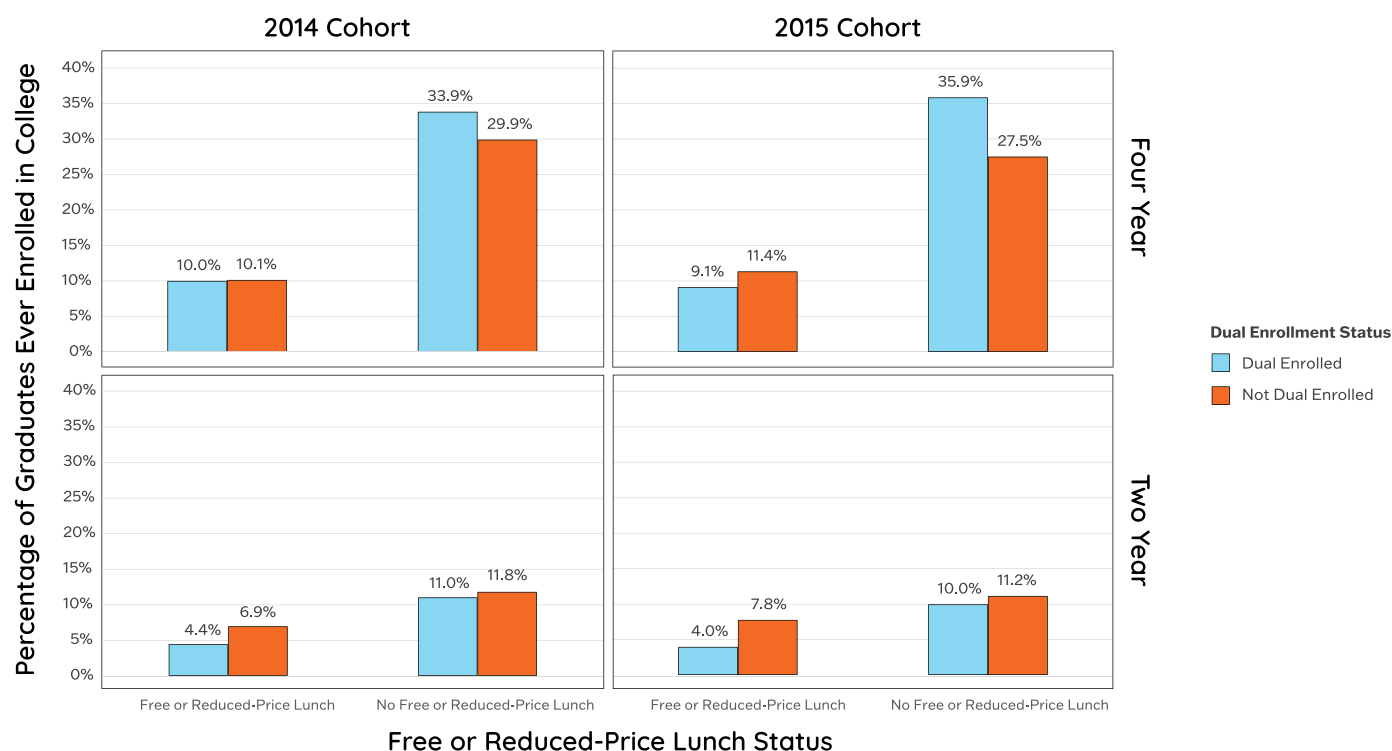
In contrast, the data suggest that male students may not be leveraging dual-enrollment opportunities to the same extent. Despite its availability, the slower rate of male participation in both two- and four-year institutions points to potential challenges or barriers that could be influencing students' postsecondary outcomes. This could reflect differences in academic preparedness, engagement with dual-enrollment programs, or other social factors that disproportionately affect males.

### **Enrollment by Free or Reduced-Price Lunch Status**

The data from the 2014 and 2015 cohorts demonstrate considerable differences in postsecondary enrollment between students eligible for FRPL and those not eligible, across both two- and four-year institutions. Dual-enrollment participation plays a role in shaping these outcomes, with non-FRPL students consistently enrolling at higher rates than FRPL students, sometimes more than twice as likely to enroll in certain institution types. (See [Figure 3](#).)



**Figure 3: College Enrollment Outcomes: Dual Enrollment vs. Non-Dual Enrollment Among New Jersey High Schools by Free or Reduced-Price Lunch Status**



Data Source: NJSDS

**Two-Year Institution Enrollment**

In two-year institutions, the enrollment gap between FRPL and non-FRPL students was modest. In the 2014 cohort, 11.8% of non-dual-enrolled non-FRPL students enrolled in two-year institutions, compared to 6.9% of non-dual-enrolled FRPL students, resulting in a 4.9 percentage point difference. Among dual-enrolled students, the gap was greater, with 11% of non-FRPL students and 4.4% of FRPL students enrolling in two-year institutions, showing only a 6.6 percentage point difference.

In the 2015 cohort, the gap between non-dual-enrolled students was similar, with 11.2% of non-FRPL students and 7.8% of FRPL students enrolling in two-year institutions, resulting in a 3.4 percentage point gap. For dual-enrolled students, however, the gap was six percentage points, with 10% of non-FRPL students enrolling in two-year institutions compared to 4% of FRPL students, making non-FRPL students two-and-a-half times more likely to enroll in two-year institutions.

The data indicate that while non-FRPL students consistently have higher enrollment rates than FRPL students in two-year institutions, the differences are smaller compared to four-year enrollment, particularly among dual-enrolled students.

**Four-Year Institution Enrollment**

In the 2014 cohort, non-FRPL dual-enrolled students had the highest four-year enrollment rate, with 33.9% enrolling, compared with 10% of FRPL dual-enrolled students. This means that non-FRPL students were over three times as likely to enroll in four-year institutions as their FRPL peers. Among non-dual-enrolled students, the difference was still large, with 29.9% of non-FRPL students enrolling in four-year institutions, compared with 10.1% of FRPL students — about three times more likely.



In the 2015 cohort, the gap in enrollment for dual-enrolled students widened slightly. Specifically, 35.9% of non-FRPL students enrolled in four-year institutions compared with 9.1% of FRPL students, meaning non-FRPL students were almost four times as likely to enroll in four-year institutions as FRPL students. For non-dual-enrolled students, the gap between non-FRPL and FRPL students was 16.1 percentage points, with 27.5% of non-FRPL students and 11.4% of FRPL students enrolling in four-year institutions, making non-FRPL students more than twice as likely to enroll.

The data show that non-FRPL students consistently enrolled in four-year institutions at higher rates than their FRPL peers, regardless of dual-enrollment status.

### ***Dual-Enrollment Participation and Postsecondary Enrollment***

Figure 3 shows that non-FRPL students had higher postsecondary enrollment rates, particularly in four-year institutions, whether they participated in dual enrollment or not. Among dual-enrolled students, non-FRPL students had higher enrollment rates in four-year institutions, with the gap between non-FRPL and FRPL students being more than threefold in both the 2014 and 2015 cohorts.

For non-dual enrolled students, the gap was smaller, but non-FRPL students still had higher enrollment rates than FRPL students across both institution types. For example, in 2015, 27.5% of non-dual-enrolled, non-FRPL students enrolled in four-year institutions, compared with 11.4% of FRPL students, making non-FRPL students more than twice as likely to enroll. The data show that non-FRPL students were more likely to enroll in both two- and four-year institutions compared to FRPL students, regardless of their dual-enrollment status.

## **Enrollment by Race and Ethnicity**

Analysis of the 2014 and 2015 cohorts revealed distinct patterns in how dual enrollment affected postsecondary enrollment across racial and ethnic groups. The data indicate that dual enrollment had a greater influence on four-year college enrollment, particularly for white students, whereas its impact on two-year college enrollment was limited across all racial and ethnic categories.

### ***Two-Year College Enrollment***

The influence of dual enrollment on two-year college enrollment was small across all racial groups. In both cohorts, non-dual-enrolled students generally enrolled in two-year colleges at slightly higher rates than their dual-enrolled peers. For white students, the difference was minimal, with only a 0.1 to 0.3 percentage point gap between dual-enrolled and non-dual-enrolled students. (See Figure 4.)

Among Black and Hispanic students, non-dual-enrolled students were more likely to attend two-year institutions. In the 2015 cohort, for instance, non-dual-enrolled Black students had a 1.8 percentage point higher enrollment rate in two-year colleges compared to their dual-enrolled peers, and for Hispanic students, the gap was 1.2 percentage points. This pattern suggests that dual enrollment did not meaningfully increase two-year college attendance for these groups.

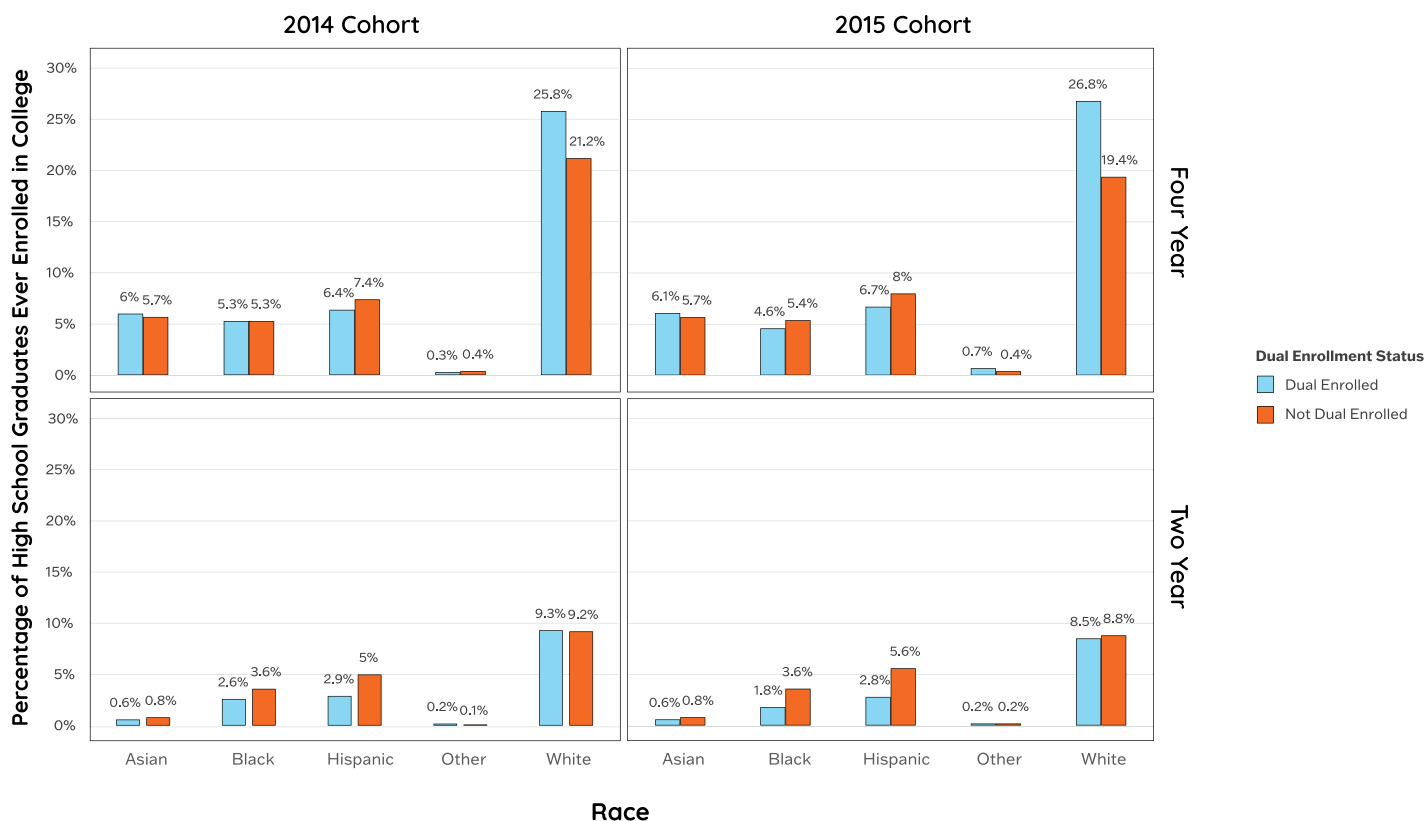
### ***Four-Year College Enrollment***

Dual enrollment had the most pronounced effect on white students in terms of four-year college attendance. In the 2014 cohort, 25.8% of dual-enrolled white students attended a four-year college, compared to 21.2% of non-dual-enrolled white students. By the 2015 cohort, the gap widened further, with 26.8% of dual-enrolled white students enrolling in a four-year college, compared with 19.4% of their non-dual-enrolled peers. This reflects a growing advantage for dual-enrolled white students, as the difference increased from 4.6 percentage points in 2014 to 7.4 percentage points in 2015.



For Asian, Black, and Hispanic students, the effect of dual enrollment on four-year college attendance was less pronounced. In both cohorts, the difference in four-year enrollment between dual-enrolled and non-dual-enrolled students was small, typically under 1.3 percentage points. This suggests that, while dual enrollment provided some advantages for these groups, its impact was more modest compared to white students.

**Figure 4: College Enrollment by Race and Dual-Enrollment Status: A Comparison Across Degree Types and Cohorts**



Data Source: NJSDS

### Enrollment by Special Education Classification

An analysis of college enrollment outcomes for the 2014 and 2015 cohorts revealed clear disparities between SPED and non-SPED students, particularly for those who were dual enrolled. These differences were observed both in two- and four-year college enrollments.

#### Two-Year College Enrollment

At the two-year college level, the differences were small but notable. In the 2014 cohort, 12.9% of dual-enrolled, non-SPED students pursued a two-year degree, compared with 2.3% of their SPED-classified peers. Non-dual-enrolled, non-SPED-classified students enrolled in two-year programs at a rate of 15.1%, while 3.6% of SPED-classified education students did so. Dual-enrolled, non-SPED-classified students were over five times more likely to pursue two-year programs than their SPED-classified counterparts, while non-dual-enrolled students were four times more likely. (See [Figure 5](#).)





In the 2015 cohort, 12.3% of dual-enrolled, non-SPED-classified students attended two-year institutions, compared with 1.6% of SPED-classified students. Non-dual-enrolled, non-SPED-classified students pursued two-year degrees at a rate of 15.3%, compared with 3.6% for SPED-classified students. This reflects a seven-fold difference for both dual-enrolled and non-dual-enrolled students, with non-SPED-classified students being much more likely to attend two-year colleges.

#### ***Four-Year College Enrollment***

In the 2014 cohort, 41.6% of dual-enrolled, non-SPED students went on to attend four-year educational institutions, compared with only 2.3% of their SPED-classified peers. Among non-dual-enrolled students, 36.8% of non-SPED-classified students enrolled in a four-year college, while only 3.2% of SPED-classified students did so. This highlights a large disparity: dual-enrolled, non-SPED-classified students were nearly 18 times more likely to pursue four-year degrees than their SPED-classified peers. Even among non-dual-enrolled students, those without a SPED classification were over 11 times more likely to attend a four-year educational institution.

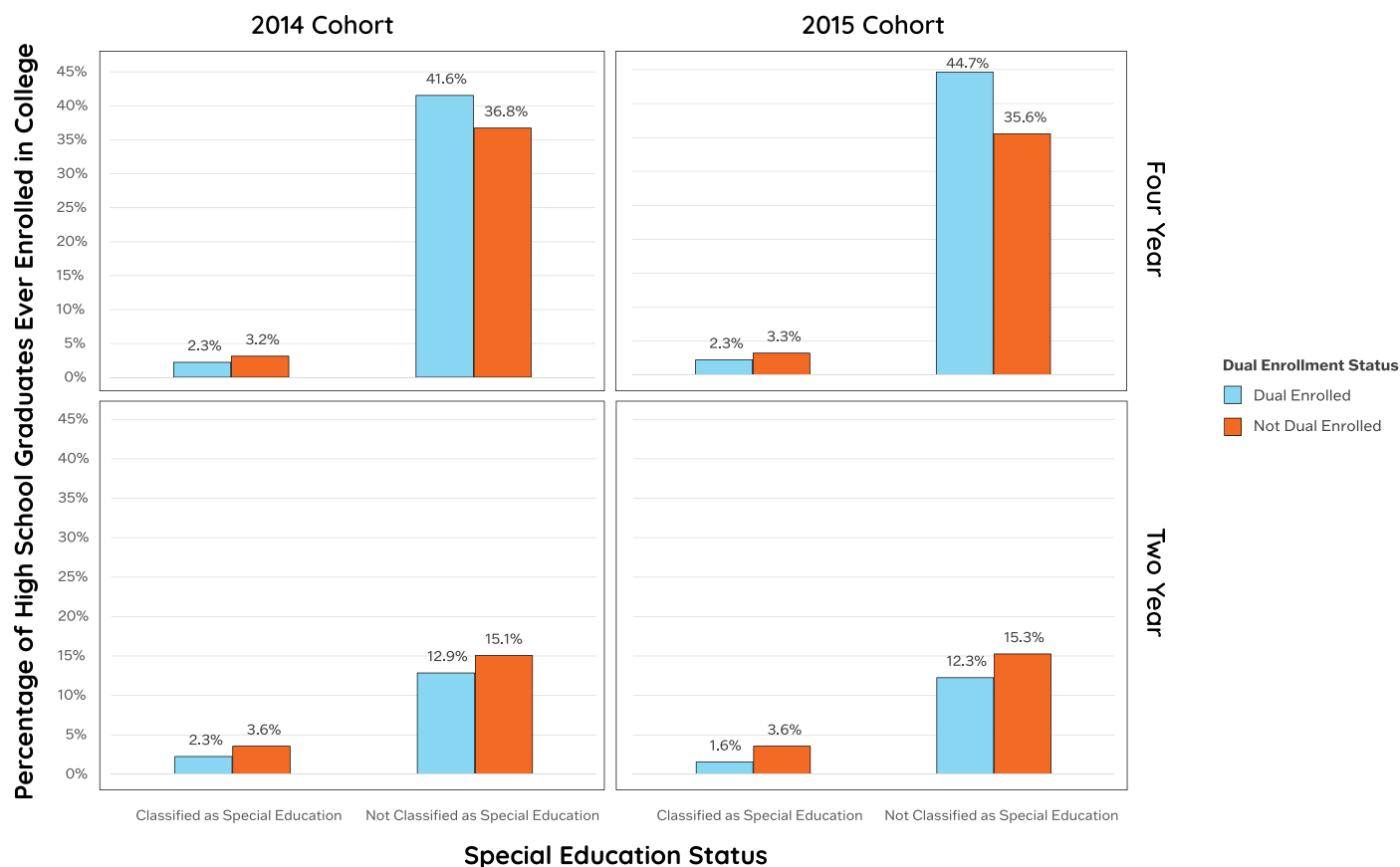
In the 2015 cohort, the gap between dual-enrolled, non-SPED-classified and SPED-classified students became even more pronounced. For example, 44.7% of dual-enrolled, non-SPED-classified students enrolled in four-year institutions, while just 2.3% of dual-enrolled, SPED-classified students did the same. Non-dual-enrolled, non-SPED-classified students had a four-year enrollment rate of 35.6%, compared with 3.3% for SPED-classified students. The data show that dual-enrolled, non-SPED-classified students were nearly 20 times more likely to attend a four-year college compared with their SPED-classified peers, while non-dual-enrolled students were 13 times more likely to attend a four-year college.

Across both cohorts, non-SPED-classified students consistently showed higher rates of enrollment in both two- and four-year institutions compared to SPED-classified students, with the largest differences observed in four-year college enrollment. The data suggest that dual enrollment may offer advantages for non-SPED-classified students in accessing four-year colleges, as shown by the widening gap between these groups from 2014 to 2015. The disparities were smaller but still evident for two-year college enrollment, where non-SPED-classified students were more likely to enroll than their SPED-classified peers, regardless of dual-enrollment status.

These trends highlight the ongoing challenges that SPED-classified students face in postsecondary education access, suggesting a need for further exploration into targeted interventions to better support their enrollment outcomes.



Figure 5: College Enrollment by Special Education and Dual-Enrollment Status, New Jersey High School Graduates, 2014 and 2015



Data Source: NJSDS

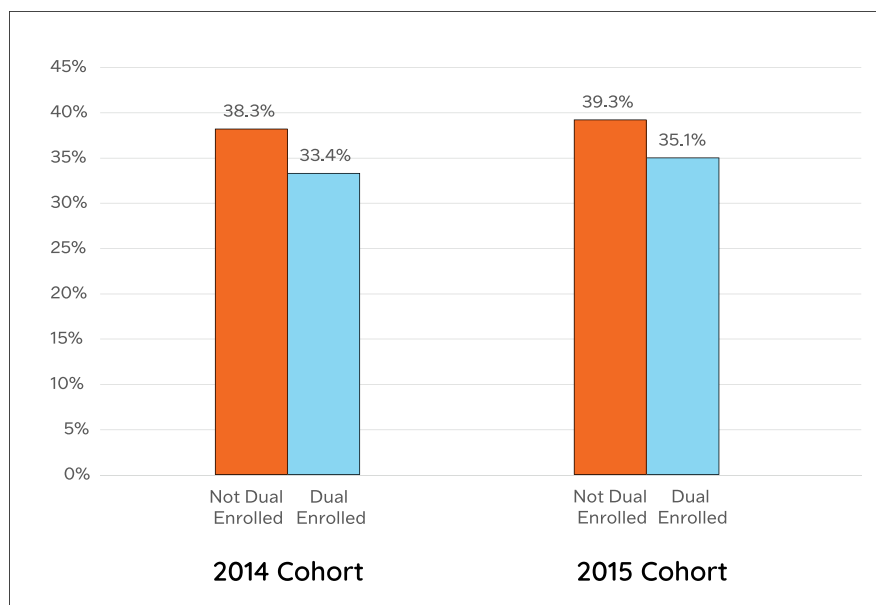
### Tuition Aid Grant Receipt

Figure 6 describes the share of Tuition Aid Grant recipients by dual-enrollment status. Tuition Aid Grants are a needs-based financial aid program aimed at helping eligible students cover tuition costs at participating New Jersey educational institutions. Data on Tuition Aid Grant recipients and program administration are administered by HESAA. To construct this figure, the proportion of Tuition Aid Grant recipients was calculated as the number of Tuition Aid Grant recipients among dual-enrolled students by the total number of ever-enrolled, dual-enrolled students, and similarly for non-dual-enrolled students. Based on Figure 6, it appears that a larger share of non-dual-enrolled students were recipients of Tuition Aid Grants compared to dual-enrolled students (38.3% vs. 33.4% for the 2014 cohort and 39.3% vs. 35.1% for the 2015 cohort).

While this analysis reveals the disparities in needs-based financial aid, it is important to consider other types of financial aid in future studies. For instance, dual-enrolled students are more likely to receive a New Jersey Student Tuition Assistance Reward Scholarship, which is for high-performing students who graduate in the top 15% of their high school class, covering tuition at New Jersey’s community colleges. This study found that about 14% of dual-enrolled students from the graduating cohorts in 2014 and 2015 who ever enrolled in two-year institutions were awarded New Jersey Student Tuition Assistance Reward Scholarships, compared to 5.3% of non-dual-enrolled students from the same cohorts.



Figure 6: Share of Students with Tuition Aid Grant Receipt by Dual-Enrollment Status who were Ever Enrolled



Data Source: NJSDS

### Postsecondary Completion

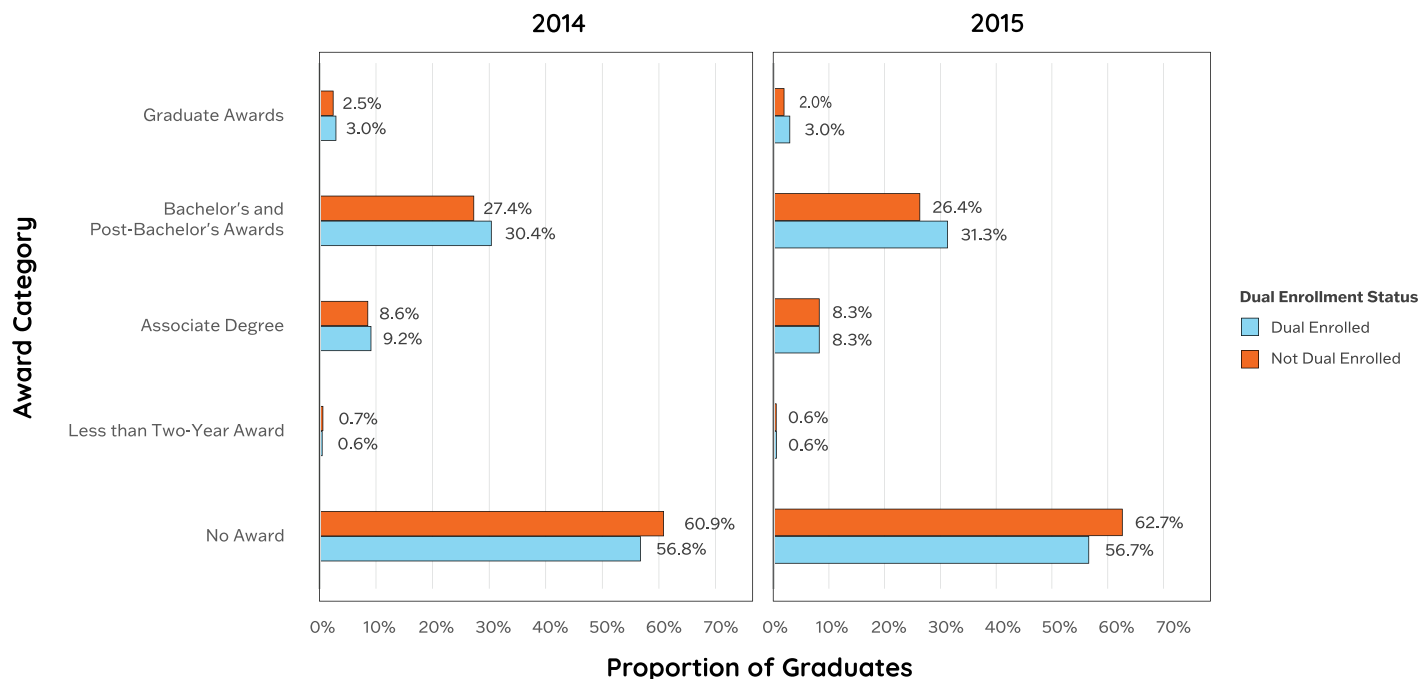
Figure 7 illustrates the differences in educational attainment between dual-enrolled and non-dual-enrolled high school graduates in 2014 and 2015. It displays the proportion of students within various award categories, ranging from no award to graduate-level awards.

In 2014 and 2015, the percentage of dual-enrolled graduates obtaining associate degrees was similar to their peers who did not participate in dual enrollment. The gap became pronounced in bachelor's and post-bachelor's awards, where dual-enrolled graduates outpaced non-dual-enrolled ones by 2.9 percentage points in 2014, which expanded to 4.9 percentage points in 2015.

Conversely, the "no award" category underscored a more significant divide, with non-dual-enrolled students more likely to not earn a degree compared to their dual-enrolled peers by 4.1 percentage points in 2014 and by 6.0 percentage points in 2015. These trends suggest that dual enrollment is positively associated with achieving educational awards at the postsecondary level.



Figure 7: Comparing Academic Outcomes by Dual-Enrollment Status for 2014 and 2015 Cohorts



Data Source: NJSDS

This analysis also examines the time students take to complete a degree. Students were categorized according to those who:

- ▶ Completed their degree within the standard timeframe or 100% of the expected time (two years for an associate degree and four years for a bachelor's degree).
- ▶ Completed their education within 150% time-to-degree (three years for an associate degree and six years for a bachelor's degree).
- ▶ Completed their education within 200% time-to-degree or more (four years for an associate degree and eight years for a bachelor's degree).
- ▶ Completed their education in more than 200% time-to-graduation (over four years for an associate degree and over eight years for a bachelor's degree).

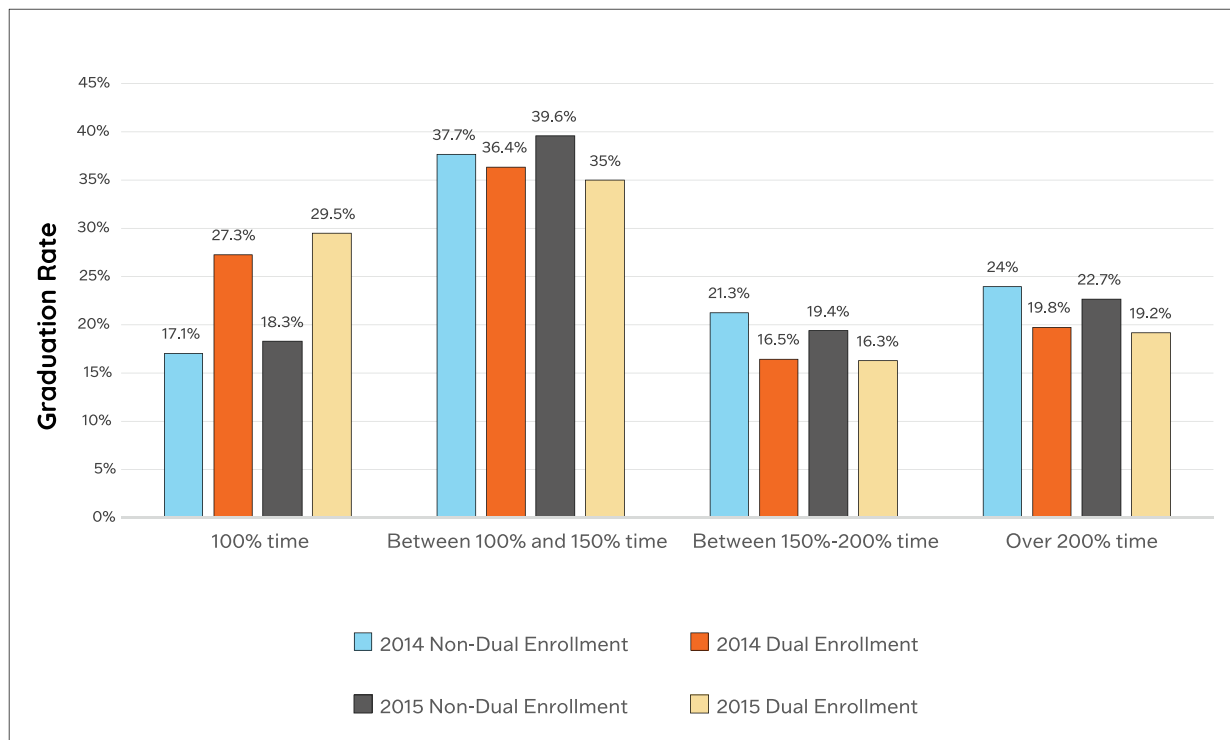
The report further narrows the analysis to seamless-enrolled students — those who entered postsecondary education in the fall immediately following their high school graduation and whose first degree was either an associate or bachelor's.

Figure 8 presents the results for associate degree holders by dual-enrolled status. As shown, a larger share of dual-enrolled students graduated within 100% of the expected time period than their non-dual-enrolled counterparts. When reviewing the numbers, 27.3% of dual-enrolled students from the 2014 cohort graduated within 100% of the expected time, as opposed to 17.1% of non-dual-enrolled students from the same cohort. The disparities are similar when comparing the 2015 cohort. Moving to the longer time-to-graduation depicts a contrasting pattern, with a smaller percentage of dual-enrolled students graduating within the 150%, 200%, and over 200% time-to-graduation than non-dual-enrolled students. Another takeaway from Figure 8 is that a large share of both dual-enrolled and non-dual-enrolled students graduated with associate degrees within a three-



year timeframe. This might suggest that a significant proportion of students, regardless of their enrollment status, require slightly longer than the standard time to complete their associate degrees, possibly due to factors such as course load, work commitments, or academic challenges.

**Figure 8: Graduation Rates for Cohort Enrolling in Associate Degree Programs**



Data Source: NJSDS

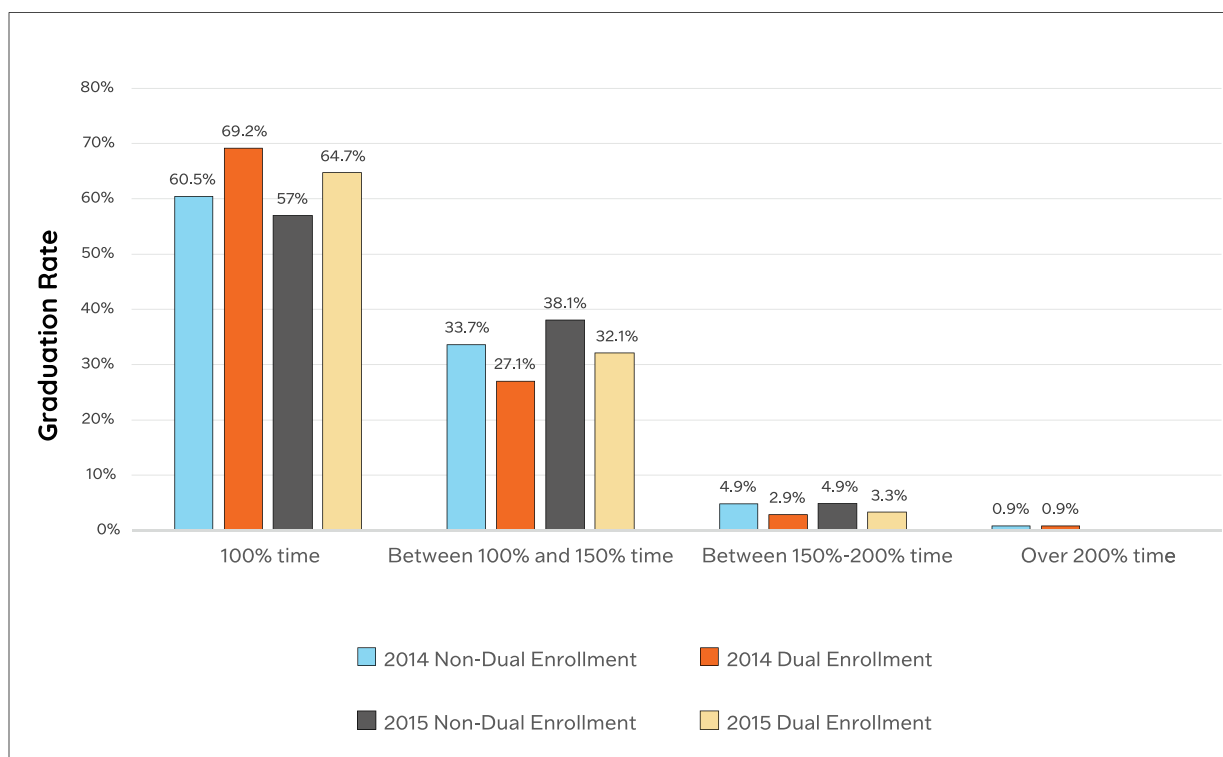
Figure 9 reports a similar set of analyses for bachelor’s degree graduates. The findings in Figure 9 complement Figure 8 with a similar pattern by showing that a larger share of dual-enrolled students tended to graduate with a bachelor’s degree within 100% of the expected time as opposed to non-dual-enrolled students. For example, 69.2% of dual-enrolled students received their bachelor’s degrees within four years versus 60.5% of non-dual-enrolled students from the 2014 cohort. When examining the results on a longer time-to-graduation, the opposite pattern is observed. Namely, a smaller percentage of dual-enrolled students graduated with a bachelor’s degree within a timeframe of over four years than non-dual-enrolled students.

It is important to note that Figure 9 does not present the results for time-to-graduation of over 200% for the 2015 cohort of bachelor’s degree holders because data on degrees awarded after eight academic years for this cohort are not available. Therefore, the time-to-graduation of over eight years (over 200%) is limited to the 2014 cohort, which shows a tiny percentage of both dual-enrolled and non-dual-enrolled students graduating during this time period. In general, this analysis reveals that a larger proportion of dual-enrolled students graduated within 100% of the expected time period.





Figure 9: Graduation Rates for Cohort Enrolling in Bachelor's Degree Programs



Data Source: NJSDS

## Conclusion

This study provides a comprehensive analysis of how dual enrollment influences the postsecondary trajectories of New Jersey high school graduates. Dual-enrolled students are more likely to enroll in college immediately after high school, particularly in four-year institutions, and demonstrate higher rates of degree completion compared to their non-dual-enrolled peers. This on-time completion is especially evident for both associate and bachelor's degrees, where dual-enrolled students outperform their peers in graduation rates.

However, the benefits of dual enrollment are not evenly distributed across all student demographics. Female students and those from higher socioeconomic backgrounds, particularly those not receiving FRPL, are more likely to take advantage of dual enrollment, especially in four-year institutions. In contrast, male students and those from lower-income backgrounds show higher enrollment in two-year institutions. White students tend to benefit more from dual enrollment than their Black, Hispanic, and Asian peers, particularly in terms of enrollment in four-year colleges.

State policies are instrumental in shaping the availability and participation of high school students in dual-enrollment programs, as highlighted by Spencer and Maldonado (2021). This underscores the critical need for strategic initiatives at both the state and local levels. Schools in states with robust articulation agreements or participation mandates are more likely to offer dual-enrollment opportunities, thereby broadening educational access (Spencer & Maldonado, 2021). However, variations in funding policies and school characteristics affect participation, emphasizing the need for a comprehensive and inclusive approach to ensure all students have equitable access to these educational pathways (Spencer & Maldonado, 2021).



These findings highlight the need for targeted strategies to ensure the benefits of dual enrollment are accessible to all students equitably. While this study offers valuable insights into the educational outcomes of dual-enrolled versus non-dual-enrolled students, its analysis remains descriptive. Future research should apply advanced statistical methods, such as quasi-experimental designs, to better isolate the causal impact of dual enrollment on students' educational and career trajectories. Matching dual-enrolled and non-dual-enrolled students based on observable characteristics can help analyze the influence of dual enrollment on educational success and career outcomes. This can guide policy initiatives promoting equity in higher education.

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## 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.

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