



# EXPLORATORY REVIEW OF REMEDIAL EDUCATION PARTICIPATION AND OUTCOMES IN NEW JERSEY

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# Executive Summary

Statistics on college enrollment show that many students are underprepared for college-level coursework (Chen, 2016; Sanabria, Penner, & Domina, 2020). In fact, according to a report from the Center for American Progress, between 40% and 60% of first-year college students in the United States require some form of developmental course or remediation (Jimenez et al., 2016). This study uses longitudinal data from the New Jersey Statewide Data System to analyze developmental education participation and outcomes among those required or who opted to participate. The results demonstrate that an overwhelming majority of remedial education participation in New Jersey higher education institutions is not for credit. A longitudinal analysis from 2008 to 2021 indicates that there has been a decline in overall remedial course participation in recent years. This report also highlights that both graduation and post-graduation earnings are better for students who did not enroll in remedial courses, particularly those who obtained a Bachelor's degree, in comparison to their peers who took remedial courses.

In a similar vein, concerning quarterly employment rates, students who did not take remediation and earned a Bachelor's degree had higher employment rates compared to their counterparts who underwent remedial coursework. This finding is in line with reporting that, in some cases, remedial education can serve as an impediment to college completion and has adverse effects on students and society (Scott-Clayton, 2018). However, those who obtained an associate degree had nearly identical employment rates, irrespective of whether they had participated in remedial courses. The report also highlights racial disparities in remedial course participation, particularly in the case of African-American and Hispanic students, where remedial participation was observed more than the proportion of these groups in the cohort. Qualitative findings from remedial experts revealed that the state's higher education institutions differ in their approach to defining remedial education, determining criteria for placing students, and reporting remedial courses. For instance, discussions with experts uncovered that although many institutions are moving away from using placement tests, a few have embraced multiple measures assessments, which involve incorporating grade point averages, personal essays, consultations with academic advisors, and other non-cognitive assessments to determine remedial placements. Together, these findings offer insights into the history and active changes within remedial education in New Jersey.

## Introduction

Statistics on college enrollment show that many students are underprepared for college-level coursework. In fact, according to a report from the Center for American Progress, between 40% and 60% of first-year college students in the United States require some form of developmental course or remediation in English and/or math (Jimenez et al., 2016). Developmental education, also known as remedial<sup>1</sup> education, is designed to help students improve their reading, writing, and/or math skills to better prepare them for college-level coursework. Despite its intended purpose, recent research suggests that remedial education can actually serve as a barrier to college completion, having negative effects on students, academic institutions, and society (Kane et al., 2020). Currently, New Jersey ranks 11th in the nation with the highest percentage of first-time students enrolled in remediation as a share of total enrollment (Jimenez et al., 2016). Using data from the New Jersey Statewide Data System (NJSDS), this study sought an exploratory review of remedial education participation in New Jersey and how it has changed over time as well as its impact on student outcomes.

<sup>1</sup> The term "remedial" will be used throughout for the remainder of the report.



## Methodology

This study used data from NJSDS, a New Jersey longitudinal data system that includes data from K-12 education through the workforce. In addition, researchers conducted interviews with leaders at postsecondary institutions and members of the Student Success Working Group (2020) on developmental courses in the state to gain a deeper understanding of the context and nuances behind the quantitative data in NJSDS. The discussions revealed that there is no standardized approach to determining remedial education placement, no statewide definition of remedial education, and that the types of remedial courses offered at institutions differ. These discussions helped researchers frame the overall study and identify factors that were not initially considered in the quantitative analysis. For the purpose of the quantitative analysis, this review is limited to first-time, full-time degree-seeking students who started either an associate or Bachelor's degree program in the fall of 2013. The cohort consists of 52,647 students. The next three sections of this report explore student participation in remedial education in the initial three semesters of enrollment.<sup>2</sup> The following section is a longitudinal analysis of student participation in remedial courses in the first semester of enrollment from the 2008 to 2021 academic years.

The numbers presented in this report may underestimate the total count of student participation in remedial courses given that not all institutions in New Jersey are present in NJSDS.<sup>3</sup> In addition, subsequent employment outcomes likely underreport the employment and wages of students since NJSDS data only include those who work within the state in Unemployment Insurance-covered jobs. Despite these limitations, this report offers a foundational assessment of remedial education participation and outcomes in the state that can be monitored as institutions continue to reshape the structure of remedial education.

## Fall 2013 Cohort Characteristics

As shown in Figure 1, approximately 50% of full-time students pursuing an associate or Bachelor's degree included in this analysis participated in at least one remedial course. Considering that NJSDS does not capture all private institutions' data within New Jersey, this proportion may be higher than the national average when it comes to overall student participation in remedial education (National Center for Education Statistics, n.d.).

Figure 2 shows an overall distribution of remedial course instances for the same cohort up to the initial three semesters of students' enrollment based on credit-bearing status. During this period, the distribution demonstrates that a significant portion of students enrolled in non-credit-bearing remedial courses. However, conversations with experts revealed that there has been a recent shift toward offering credit-bearing remedial courses. One rationale behind this change was to enable students to use financial aid to cover the costs of remedial education. Nevertheless, it is worth noting that although some remedial courses are credit bearing, the credits obtained from these courses may not necessarily contribute toward fulfilling degree requirements.

<sup>2</sup> Missing data "NA" in each remedial course enrollment is imputed with zero or non-remedial in all three semesters separately before tracking up to three initial semesters. However, the records tracked in spring and fall 2014 and unmatched with the fall 2013 cohort were excluded from the calculation for the two semesters post enrollment.

<sup>3</sup> Some New Jersey institutions are not included in the NJSDS data because they do not submit Student Unit Record data to the Office of the Secretary of Higher Education. Presently, all of 30 of New Jersey's public colleges and universities, along with 10 independent institutions, participate in the Student Unit Record system.

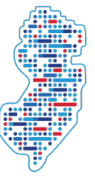


Figure 1: Percentage Distribution of Remedial Participation of Fall 2013 Cohort, Non-remedial versus Remedial (N = 52,647)

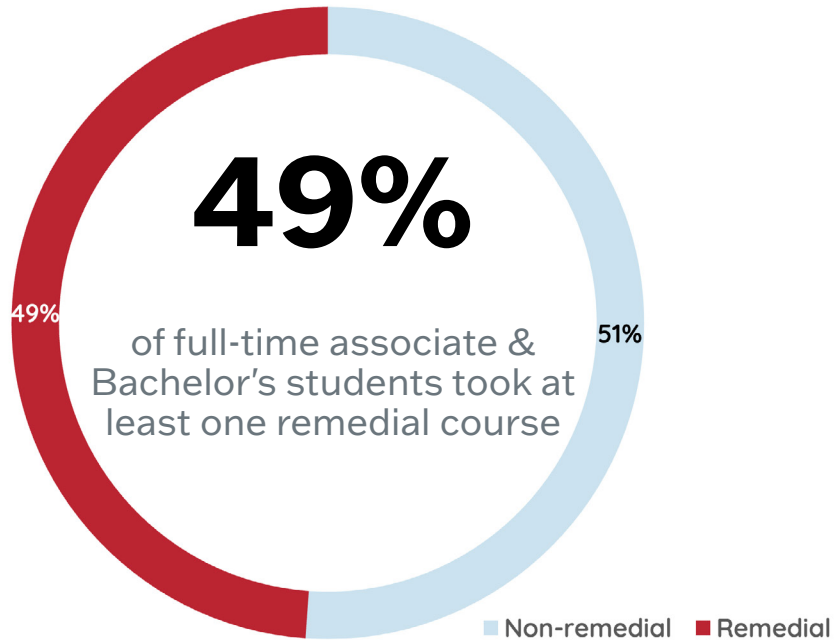
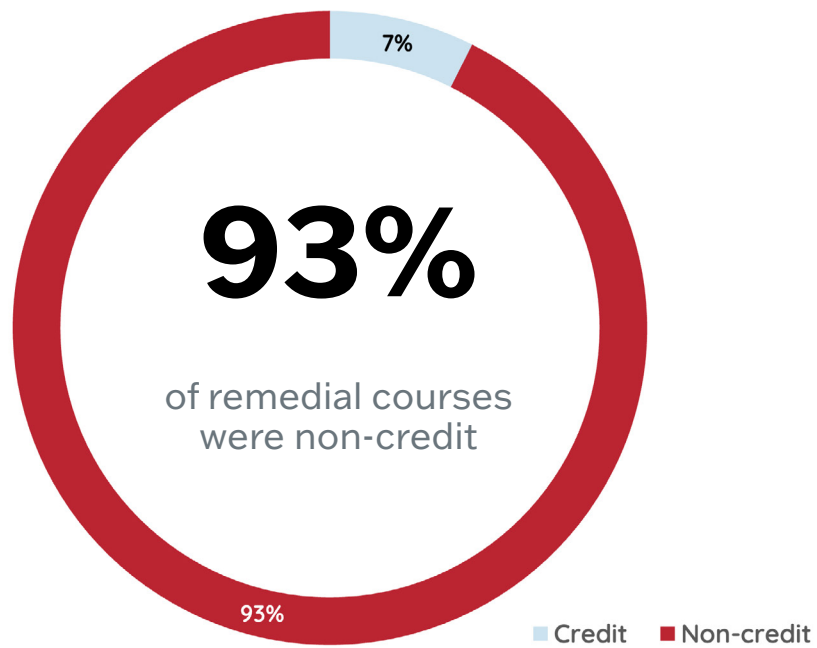
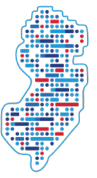


Figure 2: Remedial Course Instances, Distribution of Fall 2013 Cohort, Non-credit vs. Credit-bearing Remedial Courses (N = 25,731)





The overall distribution of remedial participation instances for the fall 2013 cohort through the initial three semesters of their enrollment by gender, race/ethnicity, and institution type is shown in Table 1. There are 25,731 unique counts of students who participated in remedial education; however, Table 1 shows instances of course enrollment and are not unique to the student. Instances of remedial participation were grouped into three categories based on their remedial course-taking and credit-bearing status:

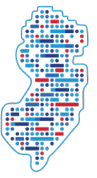
- ▶ **Non-credit Remedial:** Remedial courses that were taken as non-credit-bearing, either on a voluntary or involuntary basis. The descriptive statistics presented in Table 1 are the number of remedial course offerings in the initial three semesters, either taken alone or in combination with other course(s).
- ▶ **Credit Remedial:** Remedial courses that were taken as credit bearing, either on a voluntary or involuntary basis. The descriptive statistics are the number of remedial course offerings in the initial three semesters, either taken alone or in combination with other course(s).
- ▶ **Non-remedial:** The non-remedial column indicates the number and percentages of students in the original cohort who did not take a particular remedial course in any of the three tracked semesters.

Related to individual characteristics, female students had higher remedial participation rates than males or not reported.<sup>4</sup> With respect to the race/ethnicity category, Table 1 highlights the presence of racial disparities in remedial course taking, particularly for African-American (non-credit: 24% and credit: 22.5%) and Hispanic students (non-credit: 27.6% and credit: 17%). In these instances, participation in remedial education was observed to surpass the total representation of these racial and ethnic groups within the cohort.

**Table 1: Remedial Participation Distribution of Fall Cohort 2013 by Gender, Race/Ethnicity, and Institution Type**

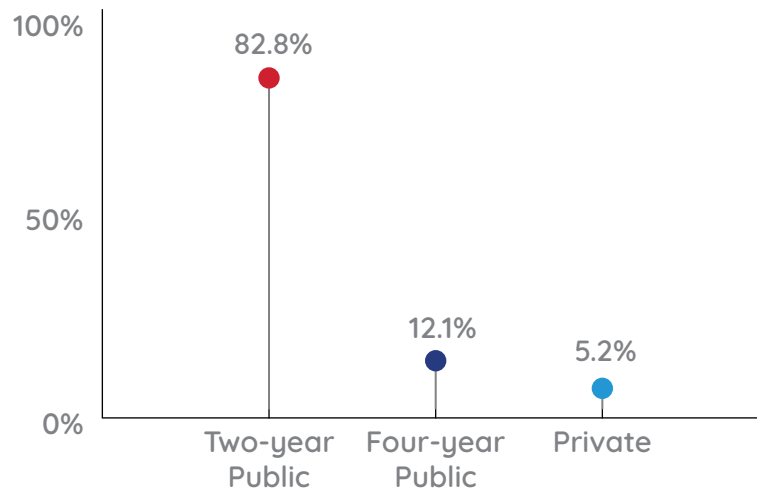
Category	Non-credit Remedial	Credit Remedial	Non-remedial
<b>Total</b>	<b>60,130</b>	<b>4,802</b>	<b>26,916</b>
<b>Gender</b>			
Female	52.8%	54.5%	50.3%
Male or Not Reported	47.2%	45.5%	49.7%
<b>Race/Ethnicity</b>			
Hispanic	27.6%	17.0%	17.5%
Multi-racial	2.2%	1.4%	2.8%
African American	24.0%	22.5%	8.9%
American Indian/Alaskan	0.5%	0.4%	0.3%
Asian	4.7%	5.7%	13.6%
Pacific Islander	0.3%	0.3%	0.3%
White	40.8%	52.6%	56.8%
<b>Institution Type</b>			
Private University	3.3%	29.0%	12.0%
Public University	96.7%	71.0%	88.0%

<sup>4</sup> A small proportion of students did not report their gender identity as female or male. To ensure the inclusion of these students and avoid suppressing the small sample, researchers categorized them as males in accordance with the Code of Federal Regulation guidelines for data disclosure (34 CFR 99). Nevertheless, given their size, these instances did not significantly affect the broader trends in male data.



When looking at the distribution of remedial participation by institution type, Table 1 underscores the prevalence of remedial enrollment, especially evident in public institutions irrespective of credit-bearing status. However, when data are further disaggregated in Figure 3, remedial participation is mainly concentrated in two-year public institutions (82.8%) compared to four-year public (12.1%) and private institutions (5.2%). This observation correlates with the circumstance that county colleges in New Jersey follow an open admissions policy, wherein all students holding a high school diploma or GED are admitted, contributing to this trend.

**Figure 3: Percentage Distribution of Remedial Participation of Fall 2013 Cohort by Institution Level**



## Completion Characteristics

For this portion of the analysis, completion status for the cohort was tracked through 2022. For tracking completions,<sup>5</sup> a higher degree award was retained in the event a student had more than one award in the data. Remedial and completion status in this category is defined as follows:

- ▶ **Non-remedial:** Those students who did not enroll in any remedial course in any of their first three semesters.
- ▶ **Remedial:** Those students who were enrolled in any remedial course during any of the three semesters tracked for this analysis.
- ▶ **Completer:** First-time, full-time students who started in fall 2013 and completed either an associate or Bachelor's degree program when tracked until 2022.
- ▶ **Non-completer:**<sup>6</sup> First-time, full-time students who started in fall 2013 and did not complete either an associate or Bachelor's degree program when tracked through 2022.

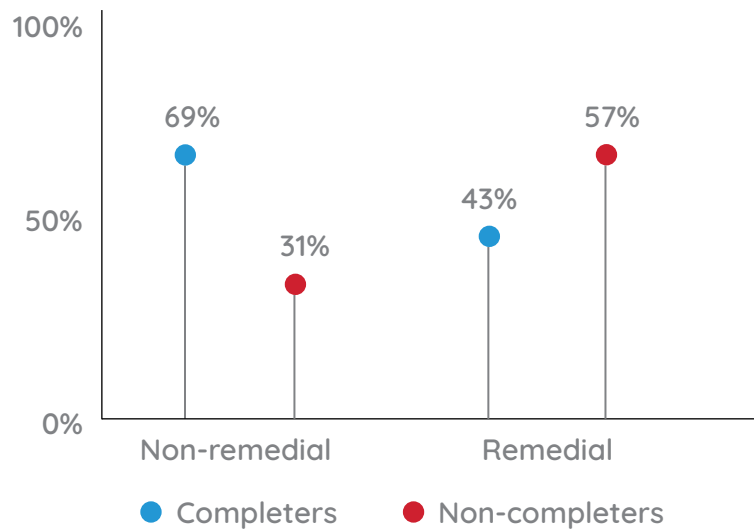
National studies have shown that students who participate in remedial education exhibit a lower rate of program completion when compared with those who do not partake in remedial courses (Chen, 2016). This is evident in this study's findings, which demonstrate that non-remedial students achieved a greater completion rate (69%) in comparison to their counterparts enrolled in remedial courses (43%), as depicted in Figure 4. Conversely, students who participated in remediation experienced a higher rate of non-completion (57%) in contrast to their non-remedial peers (31%).

<sup>5</sup> "Completion" and "graduation" are used interchangeably.

<sup>6</sup> This definition on non-completer is time bound and specific to this study only. Students may go on to complete their degree in subsequent years.



Figure 4: Overall Completion Rates of Fall 2013 Cohort, Non-remedial versus Remedial

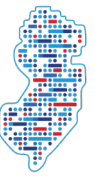


When observing overall trends, it is noticeable that students who participated in remedial education displayed higher rates of non-completion when compared to their non-remedial peers, as shown in Table 2. In almost all categories, students who participated in remedial education exhibited elevated non-completion rates, except for Asian and white students, as well as those enrolled in private universities.

Table 2: Completion Characteristics of Fall 2013 Cohort by Gender, Race/Ethnicity, and Institution Type

Metric	Completers		Non-completers	
	Non-remedial	Remedial	Non-remedial	Remedial
<b>Total</b>	<b>18,446</b>	<b>10,945</b>	<b>8,470</b>	<b>14,786</b>
<b>Gender</b>				
Female	52.7%	57.8%	45.1%	48.3%
Male or Not Reported	47.3%	42.2%	54.9%	51.7%
<b>Race/Ethnicity</b>				
Hispanic	15.1%	22.9%	22.7%	26.5%
Multi-racial	2.8%	2.3%	2.9%	2.4%
African American	7.2%	14.1%	12.5%	25.2%
American Indian/Alaskan	0.2%	0.4%	0.3%	0.6%
Asian	15.1%	8.4%	10.3%	3.9%
Pacific Islander	0.3%	0.3%	0.2%	0.3%
White	59.4%	51.8%	51.1%	41.2%
<b>Institution Type</b>				
Private University	12.5%	8.7%	11.1%	4.0%
Public University	87.5%	91.3%	88.9%	96.0%

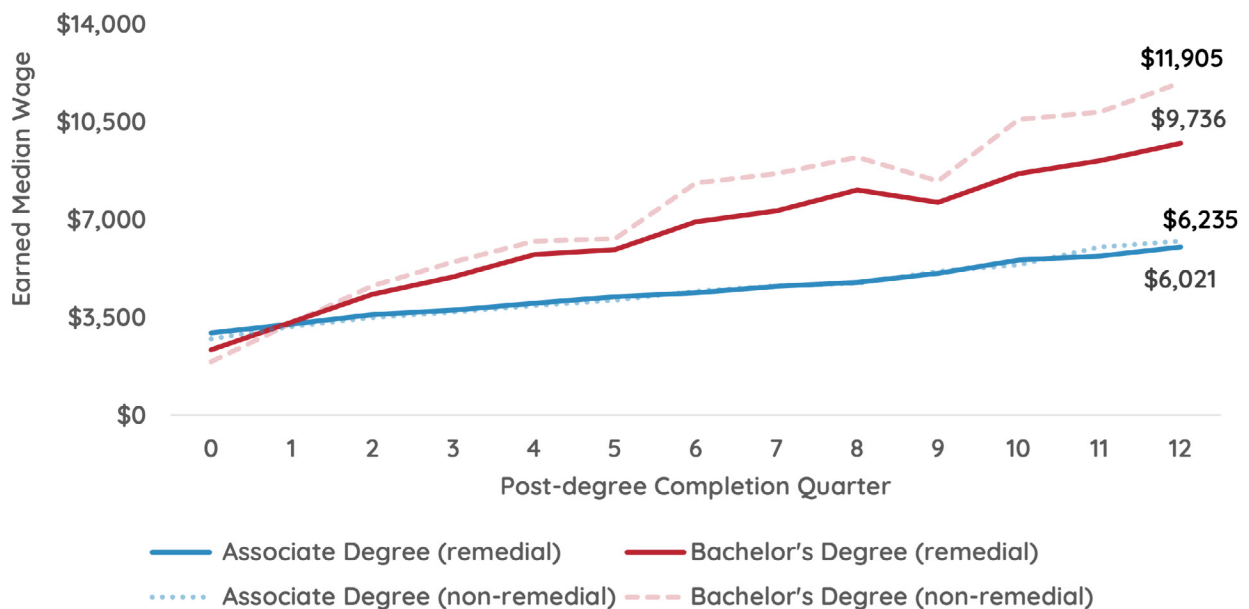
Note: For this part of the analysis, unmatched records from spring and fall 2014 with original cohort (i.e., fall 2013) were imputed with zero to match the total number of completers and non-completers with original cohort size.



# Wage Outcomes Analysis

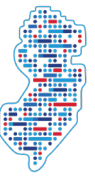
Figure 5 presents a comparison of quarterly wages of remedial and non-remedial students post-degree completion, limiting the cohort to those who completed an associate or Bachelor's degree. The wages were analyzed for both groups up to 12 quarters following graduation. Figure 5 illustrates that, on average, non-remedial students achieve slightly higher earnings post-graduation than their peers who participate in remedial coursework. Specifically, the distinction is significantly more pronounced among individuals who earned a Bachelor's degree who did not participate in remedial education compared to those who did undergo remedial education. However, those who obtained an associate degree had nearly identical earnings, irrespective of whether they had participated in remedial courses.

**Figure 5: Quarterly Earned Median Wages Comparison Post-degree Completion of Fall 2013 Cohort, Non-remedial versus Remedial**



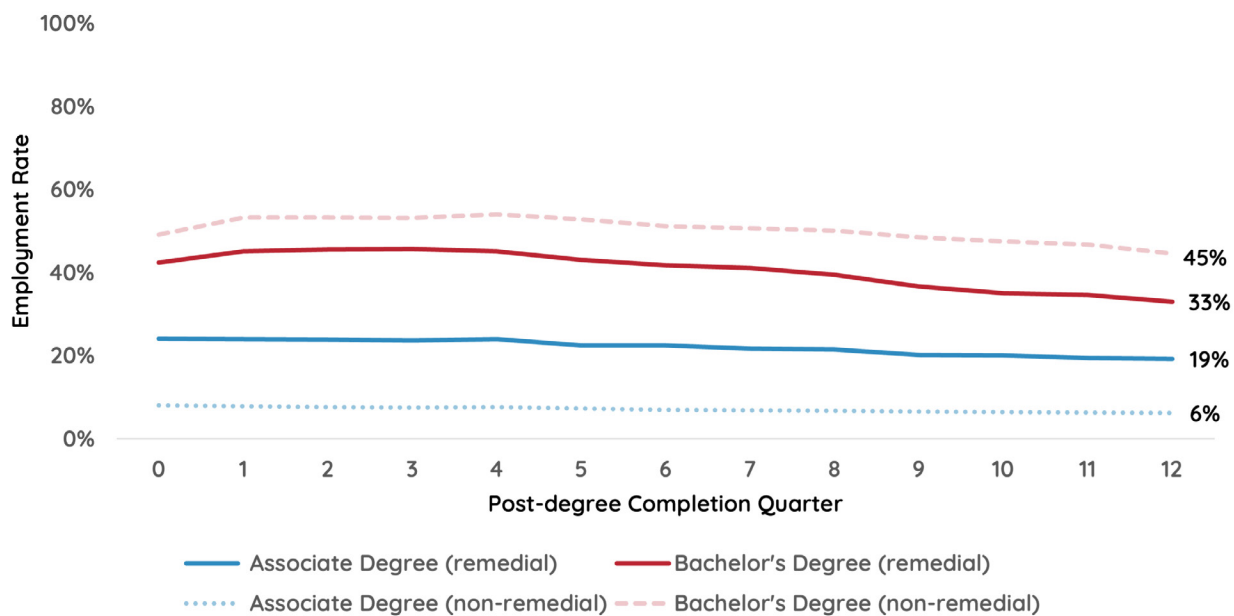
Note: Earned median wages were calculated for each quarter by considering all wages above zero in the calculation. Number of students employed and employment rate were also calculated quarter wise (see Appendix A for the full table).



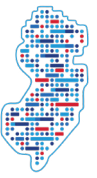


The post-graduation employment rate was also calculated for both groups up to 12 quarters after degree completion, as shown in Figure 6. Much like the disparities in median earnings, there is also a discernible contrast between Bachelor's degree recipients who received remedial education and those who did not. Students who completed their Bachelor's degree without remedial coursework consistently maintained a higher employment rate over the 12 quarters following degree attainment. However, when examining students who earned an associate degree, it becomes evident that non-remedial students had a notably lower employment rate in comparison to their counterparts who underwent remedial education. One possible explanation is that the non-remedial students may have pursued more academically challenging programs or majors that require education beyond the associate degree level. As a result, they might have taken longer to complete their education or entered the job market later, which could temporarily lower their employment rate in the short term. Other factors that could contribute to this disparity include differences in the types of associate degree programs pursued by non-remedial and remedial students, variations in the local job market, and individual factors such as networking and job search skills. It is essential to conduct further research and analysis to understand the specific factors driving the difference in employment rates between the two groups.

**Figure 6: Employment Rate Comparison Post-degree Completion of Fall 2013 Cohort, Non-remedial versus Remedial**



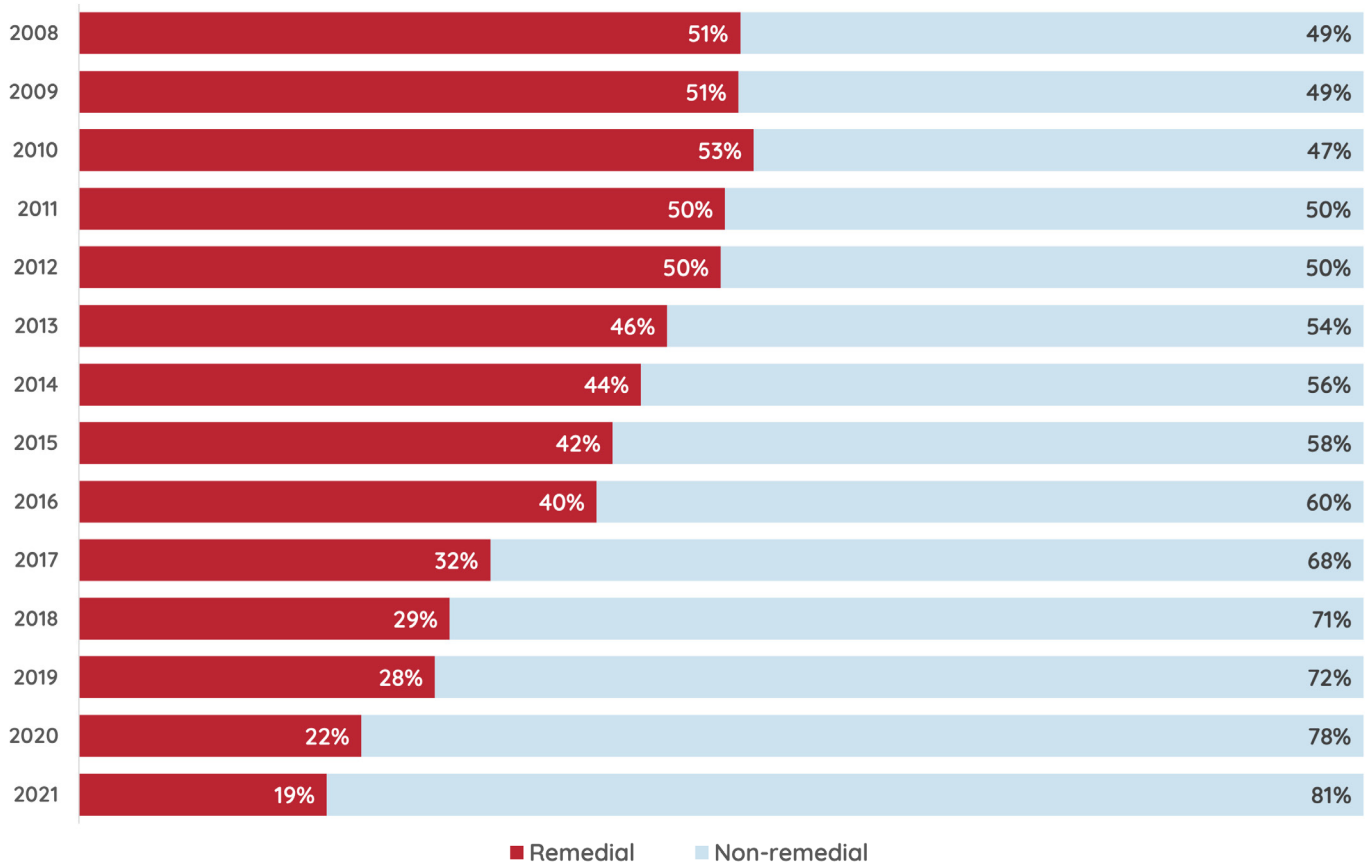
Note: The employment rate is calculated by dividing the number of employed by the total completers in the respective category. NJSDS data are limited to in-state, Unemployment Insurance-covered employment. These trends are consistent with what researchers typically see in NJSDS as people move out of state or become self-employed, they would appear unemployed. In addition, those who are truly unemployed would also not appear in Unemployment Insurance wage records.



# Longitudinal Outcomes Analysis

To understand how remedial participation of postsecondary students in New Jersey has changed over time, a longitudinal analysis was conducted. For this analysis, the cohorts consisted of first-time, full-time, degree-seeking students who enrolled in either an associate or Bachelor's program in the fall semester of their respective academic year spanning from 2008 to 2021. As illustrated in Figure 7, during this time span, overall remediation declined by 66.3% (non-credit and credit combined), while the cohort size only decreased by 10.2% (see Appendix B for total counts). This finding may underestimate the overall engagement of all students in remediation since the majority of students typically undertake remedial courses within their initial three semesters post enrollment. Furthermore, certain students enroll in a single developmental course, while others can opt for multiple developmental courses in a given semester (Student Success Work Group, n.d.). It is important to note that this analysis solely focused on monitoring remedial course enrollment in the first semester. In 2008, 92% of remedial education enrollments were non-credit-bearing courses. This figure only decreased by 1% (91%) as of 2021 (see Appendices C and D for complete proportion and percentage distribution by remedial type). As this longitudinal analysis solely monitored remedial enrollment in the initial semester of each academic year, it becomes challenging to ascertain whether there exists a noticeable trend that supports the qualitative information gathered regarding the transition to credit-bearing courses in remedial education; this would require further research to be conducted.

Figure 7: Percentage Distribution of Remedial Participation by Remedial Status from 2008 to 2021



Note: Student participation in remedial courses was tracked only for the first semester of enrollment for each academic year. Non-remedial indicates the number of students who did not take a particular remedial course in the first semester of enrollment for each academic year.



## Conclusion

The subject of remedial education remains a prominent topic, not only in New Jersey but across the nation. Studies have shown that students who place into remedial education have a lower likelihood of finishing a program of study and obtaining a degree or credential. Insights gained from discussions with experts indicated that many institutions within the state are actively engaged in reforming their approach to remedial education. This encompasses modification of the assessment process used for determining eligibility for participation in remedial courses. For instance, certain institutions are transitioning away from sole reliance on tests such as Accuplacer<sup>7</sup> for placement, opting instead for self-directed placement options where students can make their own placement decisions while working alongside academic advisors. Alternatively, there is a shift toward adopting multiple measures, which involves considering factors such as students' grade point average or SAT/ACT scores, in the placement process. Strategic reforms to remedial education policies and practices are important as they affect students of color, adult learners, first-generation students, and those from low-income backgrounds who are disproportionately placed into remedial education (Student Success Working Group, n.d.). These changes may not completely resolve the issues surrounding remedial education, but they are a step in the right direction to addressing equity issues.

This analysis highlights the characteristics of student participation in remedial education using data from NJSDS. This exploratory study revealed that a significant proportion of New Jersey students enroll in at least one remedial course, and overwhelmingly, these courses are non-credit bearing. However, this number has declined over time, a trend that could be linked to recent shifts in how institutions approach remedial education. The results indicate the practice of remedial education in fall 2013 resulted in lower retention and graduation rates. Consequently, longitudinal data reveal that institutions are adapting and changing their approach to remedial education due to this growing knowledge and literature around obstacles that non-credit remedial courses can pose to students' progress toward completion. Future research on more recent cohorts of students can reevaluate whether those enrolled in remedial education are still graduating at a lesser rate compared to students not enrolled in remedial courses. When considering gender and race/ethnicity, non-remedial students achieve more positive outcomes than their remedial counterparts, although there were a few exceptions. This report emphasizes the presence of racial disparities in the enrollment of remedial courses, especially concerning African-American and Hispanic students. In these cases, participation in remedial education was noted to exceed the representation of these racial groups within the cohort. Furthermore, this report highlights that a substantial portion of remediation occurs within public institutions. However, when researchers delve deeper into the data by categorizing institutions, it becomes evident that remedial participation is more pronounced within two-year public institutions. Finally, while the earnings of students who took remedial courses were initially comparable to or slightly better than those of non-remedial students immediately after completion, the gap widened in favor of non-remedial completers up to the quarter tracked in this study. Future research could include a comparison of employment and earnings of non-completers between the remedial and non-remedial groups over time. This exploration could help determine whether remedial education, while possibly not preparing students for future coursework, might still equip them with the skills relevant to certain careers or jobs.

<sup>7</sup> A series of tests that evaluate students' skill in reading, writing, and math to help institutions place them in courses that match their skills. <https://accuplacer.collegeboard.org/about/get-to-know-accuplacer>



There are several limitations to this analysis worth noting. One limitation is that remedial course participation was tracked up to three initial semesters as the majority of remediation takes place during this timeframe; however, it is possible that the cohort students, particularly non-remedial students, might have enrolled in remedial courses beyond the tracked semesters. Also, the remedial course variables in the statewide data only indicate remedial course enrollment status and not completion; for the purpose of wage outcome analysis, researchers define completers as someone who received an award after being classified as a remedial or a non-remedial student. Moreover, wages were only tracked up to 12 quarters post-degree completion. There are many confounding factors that may explain the wage differential between remedial and non-remedial students beyond course enrollment. These factors could be the students' field of study, level of their degree (associate versus Bachelor's), industry and occupation of employment, prior work experience, and whether they participated in an internship while in college or in another apprenticeship-type program. In addition, interviews with experts from New Jersey higher education institutions suggest there is no standardized approach to remediation in the state and individual institutions differ in their approach to defining and placing students in remedial courses, which has resulted in differences in reporting remedial courses. The absence of a uniform approach to remediation in the state limits the ability of future research on the topic to better inform policymaking around this important subject. This study offers an overview of participation in remedial education across postsecondary institutions in New Jersey and highlights intra- and inter-group disparities in remedial education. By identifying key gaps and limitations, this study establishes the groundwork for further exploration into the subject, aiming to create a more comprehensive understanding of remedial education in the state. With integration of a standardized approach to remedial education, future research on this topic could significantly contribute to enhancing and understanding educational and workforce outcomes for New Jersey residents.

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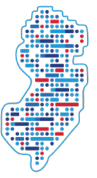
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# Appendix A: Quarterly Wages Comparison, Remedial versus Non-remedial Course-takers

Quarter	Remedial						Non-remedial					
	Associate			Bachelor's			Associate			Bachelor's		
	Fuzzy Median Wage (\$)	# of Employed	Employment Rate	Fuzzy Median Wage (\$)	# of Employed	Employment Rate	Fuzzy Median Wage (\$)	# of Employed	Employment Rate	Fuzzy Median Wage (\$)	# of Employed	Employment Rate
0	2,952.65	2,646	24.18%	2,355.20	4,647	42.46%	2,737.28	1,501	8.14%	1,911.45	9,080	49.22%
1	3,263.00	2,632	24.05%	3,333.50	4,947	45.20%	3,175.30	1,454	7.88%	3,303.23	9,832	53.30%
2	3,599.58	2,622	23.96%	4,334.78	4,995	45.64%	3,493.63	1,411	7.65%	4,629.60	9,828	53.28%
3	3,765.70	2,593	23.69%	4,966.00	5,010	45.77%	3,697.38	1,405	7.62%	5,488.40	9,811	53.19%
4	4,023.53	2,632	24.05%	5,758.00	4,948	45.21%	3,928.00	1,409	7.64%	6,245.50	9,981	54.11%
5	4,246.40	2,469	22.56%	5,939.58	4,722	43.14%	4,117.85	1,354	7.34%	6,330.10	9,753	52.87%
6	4,395.50	2,468	22.55%	6,927.35	4,574	41.79%	4,435.88	1,301	7.05%	8,320.55	9,448	51.22%
7	4,621.80	2,379	21.74%	7,316.00	4,504	41.15%	4,635.88	1,279	6.93%	8,664.48	9,353	50.70%
8	4,758.58	2,359	21.55%	8,069.10	4,328	39.54%	4,731.85	1,256	6.81%	9,248.10	9,249	50.14%
9	5,090.30	2,219	20.27%	7,625.80	4,018	36.71%	5,152.23	1,209	6.55%	8,383.05	8,948	48.51%
10	5,558.70	2,200	20.10%	8,652.16	3,844	35.12%	5,391.20	1,200	6.51%	10,599.50	8,771	47.55%
11	5,703.80	2,131	19.47%	9,122.75	3,792	34.65%	6,031.20	1,170	6.34%	10,862.45	8,642	46.85%
12	6,021.25	2,111	19.29%	9,736.00	3,618	33.06%	6,234.95	1,162	6.30%	11,905.00	8,227	44.60%
13	6,087.80	1,937	17.70%	9,100.10	2,983	27.25%	6,292.58	1,093	5.93%	10,436.58	7,679	41.63%
14	6,660.80	1,931	17.64%	10,622.23	2,991	27.33%	6,962.48	1,091	5.91%	13,036.40	7,636	41.40%
15	7,006.38	1,846	16.87%	10,823.38	2,967	27.11%	7,154.33	1,062	5.76%	12,929.23	7,731	41.91%
16	7,421.00	1,757	16.05%	11,008.20	2,800	25.58%	7,424.98	1,011	5.48%	13,685.00	7,598	41.19%

Percentage remediation at two-year public institutions	82.75%
Percentage remediation at four-year public institutions	12.06%
Percentage remediation at private institutions	5.19%



## Appendix B: Proportion of Unique Enrollments from 2008 to 2021, by Remedial Status

Status	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Remedial	26,341	27,649	28,714	26,739	25,990	24,099	22,699	21,277	20,683	16,548	14,927	13,967	10,270	8,865
Non-remedial	24,815	26,214	25,939	26,422	26,030	28,548	29,177	29,933	30,639	35,125	36,825	36,481	36,458	37,098
Total Cohort	51,156	53,863	54,653	53,161	52,020	52,647	51,876	51,210	51,322	51,673	51,752	50,448	46,728	45,963

## Appendix C: Proportion of Remedial Enrollments from 2008 to 2021, by Course Type

Remedial Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Non-credit	42,297	46,429	47,576	43,583	43,654	39,599	35,955	32,194	30,893	26,169	22,315	2,0111	14,322	12,401
Credit	3,684	3,277	4,152	3,988	4,769	4,093	3,258	2,875	3,854	2,034	2,422	2,231	1,637	1,187
Total	45,981	49,706	51,728	47,571	48,423	43,692	39,213	35,069	34,747	28,203	24,737	22,342	15,959	13,588

## Appendix D: Percentage Distribution of Remedial Enrollments from 2008 to 2021, by Course Type

Remedial Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Non-credit	92%	93%	92%	92%	90%	91%	92%	92%	89%	93%	90%	90%	90%	91%
Credit	8%	7%	8%	8%	10%	9%	8%	8%	11%	7%	10%	10%	10%	9%



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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, located within 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 their 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.