New Jersey's Teacher Workforce: 2025 Legislative Report

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Executive Summary

Teachers serve a critical role in the U.S. economy and society, promoting the development of youth by providing instruction and support to encourage learning throughout their K-12 education. Unfortunately, teachers face many challenges throughout their careers, including initial difficulties in obtaining the necessary credentials and securing employment. Local and national news reporting has indicated risks of teacher shortages, particularly in certain content areas. While research in this area has advanced, little is known about what influences teachers' decisions to enter or remain in a teaching position and the general supply and demand of the teacher workforce. This report focuses on exploring these challenges by addressing the requirements outlined in Chapter 394 of Public Law 2021 (P.L. 2021, c.394). Additional analyses presented in this report were informed by stakeholder feedback.

Using data from the New Jersey Statewide Data System (NJSDS) covering the period from 2013-14 to 2023-24, the key takeaways from this year's report include:

- Overall, the number of teachers (full-time equivalents or FTEs) in New Jersey has remained stable during this time period at about 117,500 FTEs with year-over-year changes between ±1%.
- Some subject areas have seen more significant changes than others in the number of teachers, with math and science teachers decreasing by approximately 9% in the study period, and resource program teachers increasing by nearly 20%. Computer science had a 3% decrease in this analysis, a shift from the 1% increase in the prior year, some of which may be due to the removal of private schools from the analysis.
- The sex and race/ethnic composition of New Jersey's teacher workforce have changed little over time. During the study period, between 76% and 77% of the teacher workforce was female, and between 82% and 84% was white.
- The number of teachers exiting their roles has increased over time, particularly in the post-pandemic period. Retirements and unexplained resignations remain the most common reasons for teacher exits.
- Staffing increases are likely needed in multilingual learning and computer science classes, as student-to-teacher ratios (STRs) in these areas have either increased, indicating fewer teachers per student, or remained high.
- The ratio of newly certified teachers to those permanently exiting the profession has decreased over time, which may challenge the teacher workforce statewide and in specific localities.
- About 16% to 18% of teachers work supplemental employment outside of the education industry in New Jersey. Many of these teachers were only employed outside of education for a single quarter of the year, and earnings were relatively low.
- Teachers who engage in supplemental employment outside of the education industry tend to earn around 6% less than their peers who do not engage in supplemental work, and their outside earnings, on average, make up for this difference in teaching salary.

Introduction

Teachers serve a critical role in the U.S. economy and society, promoting the development of youth by providing instruction and support to encourage learning throughout students' K-12 education. Unfortunately, teachers face many challenges throughout their careers, including initial difficulties in obtaining the necessary credentials and securing employment. Local and national news reporting has indicated risks of teacher shortages, particularly in certain content areas. While research in this area has advanced, little is known about what influences teachers' decisions to enter or remain in a teaching position and the general supply and demand of the teacher workforce.

Research on teacher preparation, recruitment, and retention reveals several key trends and challenges. Enrollment in teacher preparation programs has declined significantly, with the National Center on Teacher Quality noting a drop nationally from 880,000 to 591,000 enrollees between 2010 and 2021 (Saenz-Armstrong, 2021), while the proportion of students of color in teacher preparation programs has increased. Studies have also found that white, female, and lower-performing students are more likely to pursue teaching, a profile that mirrors the existing teacher workforce, raising concerns about the increasing diversity gap between teachers and their students (ACT, 2015; Putman et al., 2016; Bartanen & Kwok, 2023). Later in the pipeline, teacher attrition is another area of concern, with new teachers and educators in high-poverty schools showing the highest turnover rates. One contributing factor for this may be teacher pay, which continues to lag behind other professions requiring similar levels of education. This "teacher pay the penalty" may lead some to take on supplemental work or leave the profession (Allegretto, 2023; Bryant et al., 2023).

This report focuses on exploring these challenges by addressing the requirements outlined in Chapter 394 of Public Law 2021 (P.L. 2021, c.394).

- The number of teachers who left employment with the district during the prior school year;
- The reason those teachers left employment with the district, including dismissal, non-renewal of a contract, a reduction in the labor force, employment in another school district or a nonpublic school, employment in another field, relocation to another state, or retirement;
- The characteristics of the teachers who left the district, including age, sex, race, and tenure status;
- The teaching [jobs] positions, by certification area, in high demand in New Jersey and [where] existing vacancies are located;
- The number of bilingual teachers needed to provide adequate limited English proficiency programming to students in the state;
- The number of computer science teachers needed to provide access to computer science coursework to all students in the state;
- The classes and programs that may be eliminated within the next three years; and
- The areas in which teachers and school leaders should be trained/prepared so they can prepare students for the future economy.

Additional analyses presented in this report were informed by stakeholder feedback. The analysis in this report uses staff data and student demographic and enrollment data from the New Jersey Department of Education (NJDOE), as well as student demographic and enrollment data and employment data from the New Jersey Department of Labor and Workforce Development (NJDOL)

This report first presents the study methodology, data sources, and measures. In the following section, results are presented thematically to address the state of the teacher workforce, teacher exits and projections, teacher supply and demand, and a case study on employment held by teachers outside of the education sector. The report concludes by summarizing the findings of this research.

Methodology

Heldrich Center researchers conducted descriptive analyses to provide an overview of trends and projections in New Jersey's teacher workforce using data extracts for the 2013-14 to 2023-24 school years. The primary data sources used for this study are NJDOE's New Jersey Standards Measurement and Resource for Teaching (NJ SMART) data system and other data contained in NJSDS,[1] New Jersey's longitudinal platform for administrative data. Specifically, researchers used the Staff Member Identification (SMID) extract that provides detailed information on staff members in each New Jersey local education agency, certification and endorsement data that provide details on teachers' certifications, aggregate student-level data from NJ SMART, and Unemployment Insurance wages and employer records data from NJDOL.

Throughout this study, the staff and student data used are associated with all public local education agencies in New Jersey. Additionally, the use of the term "teachers" refers to staff who have a State of New Jersey certification and spend at least a portion of their time assigned to an instructional job code as defined by NJDOE. Individual staff members may serve in up to six jobs within a local education agency, so researchers defined teachers based on full-time equivalency (FTE) – the amount of time associated with an instructional job code. However, for the subgroup analysis by race and gender and for the analysis of teacher exits, "teachers" refers to a person regardless of their FTE.

Please refer to the technical methodology in the appendix for additional information about the analysis.

Research Questions

Researchers assessed the changes in the teacher workforce in New Jersey by addressing five research questions guided by the required metrics in the legislation and stakeholder feedback.

1. What are the observed trends in New Jersey's teacher workforce by the number (FTEs) of teachers and by subgroup, including race, sex, age, and subject area?

2. What are the trends in and reasons for exiting the public school teacher workforce in New Jersey by subgroup, including race, gender, subject area, and job category?

3. What are the teacher workforce projections for various subject areas, and what subject areas are at higher-than-average risk of teacher turnover?

4. What are the trends in the rate of replacement in the teacher workforce in New Jersey?

5. To what extent are New Jersey's teachers holding employment outside of the education industry? What types of workforce experiences and earnings are obtained through supplemental employment?

[1] NJSDS was formerly the New Jersey Education to Earnings Data System.

Data Analysis

The Heldrich Center addressed these research questions through four main streams of analysis. Researchers first analyzed the current teacher workforce landscape by various subgroups over time, such as race, sex, age, and subject area. They also assessed the trends in, and reasons for, teacher exits (determined by teachers who have an exit date and reason for leaving teaching in the data) by subgroup, including race/ethnicity and job categories. Researchers also used student, staff, and certification and endorsement data to project New Jersey's teacher workforce needs by subject area, including subject areas at risk of teacher shortages. Finally, to assess the trends in supplemental employment held by public teachers in the state, researchers conducted a case study analyzing whether teachers held employment outside of the education industry throughout the year. The analysis explored the proportion of teachers doing so, examined the primary industries in which they worked, and compared their earnings to the earnings of their peers who did not hold supplemental employment.

Data Source: NJDOE

NJ SMART

To analyze the current teacher workforce landscape and pipeline, assess teacher exits by subgroup, and make projections, the Heldrich Center primarily used NJ SMART data, which are housed within NJSDS and cover the 2013-14 to 2023-24 school years. For each year, teachers were defined using the unique SMID within these data files and were limited to those who held certified teaching positions within the local education agency for at least a portion of their time. Full-time administrators, certificated non-teaching personnel, and non-certificated staff were not included in this analysis. Teachers employed in private non-charter schools were also excluded from this analysis. In addition, teachers' exits were examined by using exit dates to determine those who exited the teaching profession in each school year. This analysis developed measures of the propensity of current teaching staffing levels to "adequately meet teaching needs" – Student Teacher Ratio (STR) and to be at "higher-than-average risk" of teacher turnover or program elimination. Analyzing these data enabled researchers to identify trends by subject and other select characteristics, such as race and ethnicity, sex, and age groups, over time.

Certification and Endorsement Data

Researchers analyzed state teaching certification and endorsement data between 2010 and 2024. Individuals pursuing teaching certifications must fulfill an endorsement that identifies the type(s) of subject area(s) they can teach. Since endorsements can be conferred by NJDOE at any time, all types of endorsements conferred are reported by calendar year. Because individuals may receive multiple endorsements, figures and analyses related to endorsements in this report should not be interpreted as the number of new teachers or newly endorsed teachers, but instead the number of those who have received the credential that year. However, researchers have included provisional endorsement by subject area as a proxy for first-time endorsements of new teachers in New Jersey. This facilitates projections and comparisons with teacher exits over time and gives an idea of areas likely to be at risk.

Data Source: NJDOL

To analyze supplemental employment among teachers, the research team used Unemployment Insurance wage and employer data within NJSDS. Researchers identified public school teachers in each year of the analysis from 2013-14 to 2023-24 and matched them to their Unemployment Insurance wage records and employer records based on common identifiers. About 99% of public school teachers were matched to their Unemployment Insurance wage and employer records. Researchers limited the sample for this analysis to public school teachers who either had a wage record only

in the educational services industry (the two-digit North American Industry Classification System code is 61) or in both the educational services industry and any other industry.[2] The analysis then compares public school teachers working in only the educational services industry with those working in both the educational services industry and another industry. The results highlight "moonlighting" between the educational industries and other industries (for example, a teacher who works in the accommodation and food services industry in addition to their primary teaching role). Readers should note that the limitations of the Unemployment Insurance wage data could lead to an underestimate of the extent of moonlighting among teachers. Researchers do not focus on moonlighting within the educational services industry; for example, having a teaching job in a school and a supplemental administrative role in another school. This will be the focus of future research briefs.

Analytic Limitations

Apart from some of the limitations already highlighted, the analysis was confined to state-level estimates, which may overlook local- and/or school-level trends. To comply with data security and confidentiality requirements associated with NJSDS data use standards, researchers also combined and/or suppressed categories with few records, constraining the depth of the analysis. These practices, while essential for data security and confidentiality requirements, limit the scope of this analysis. It is important to note that longitudinal data require consistent tracking over time. Any interruptions or inconsistencies in the data collection may affect the analysis, so caution should be exercised in interpreting the results in areas where these inconsistencies may be present.

In addition, there are two primary limitations to using the Unemployment Insurance wage data for the analysis related to teachers' supplemental employment. First, employment data are limited to individuals who work within the state in jobs covered by New Jersey Unemployment Insurance. As such, it does not account for supplemental employment such as independent contractor or gig work, as well as any employment outside of the state. In addition, Unemployment Insurance wage records in New Jersey provide the industry but not the occupation of employment, which limits insight into the types of jobs teachers take on outside of education.

[2] Those who did not have a wage record in educational services but had records in other industries (about 0.2% of teachers) were excluded from the analysis to avoid any issue of false match between staff and wage records.

Results

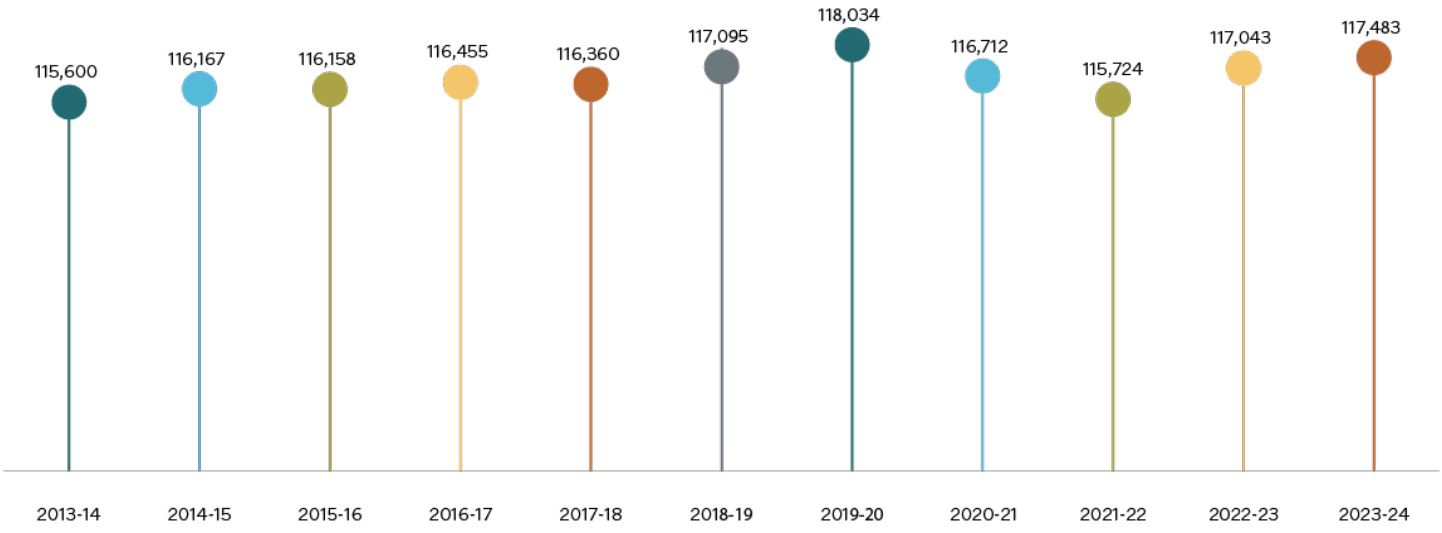
This section describes the results of these analyses, which address the five primary research questions stated earlier in this report. It first examines the state of the teacher workforce in New Jersey in terms of the number of teachers overall, then separately by subject-area specialization, race/ethnicity, sex, and age. This section then examines trends in teacher exits over time by first focusing on the demographics and subject specializations of exiting teachers and then projecting workforce needs based on STRs. This section concludes with the results of the supplemental employment case study.

The State of the Teacher Workforce in New Jersey[3]

The Heldrich Center conducted a descriptive review of the teacher workforce in New Jersey between the 2013-14 and 2023-24 school years. The descriptive review included an overview of the number of teachers each year by individual characteristics and by subject area. Individual characteristics, including race/ethnicity, sex, and age, are discussed below.

Overall, the number of teachers (FTEs) in the state has remained stable over this period. Change year over year remained around ±1%. Figure 1 shows these changes over time, ranging from 115,600 FTE teachers in 2013-14 to 117,483 in 2023-24. The peak occurred in the 2019-20 school year, with 118,034 FTE teachers.

Figure 1: Number of Teachers (FTEs) in New Jersey



Source: NJ SMART SMID extract

[3] The 2024 teacher workforce report (Douglas et al., 2024) included slightly higher estimates of teacher FTEs as this year's analysis excludes private schools.

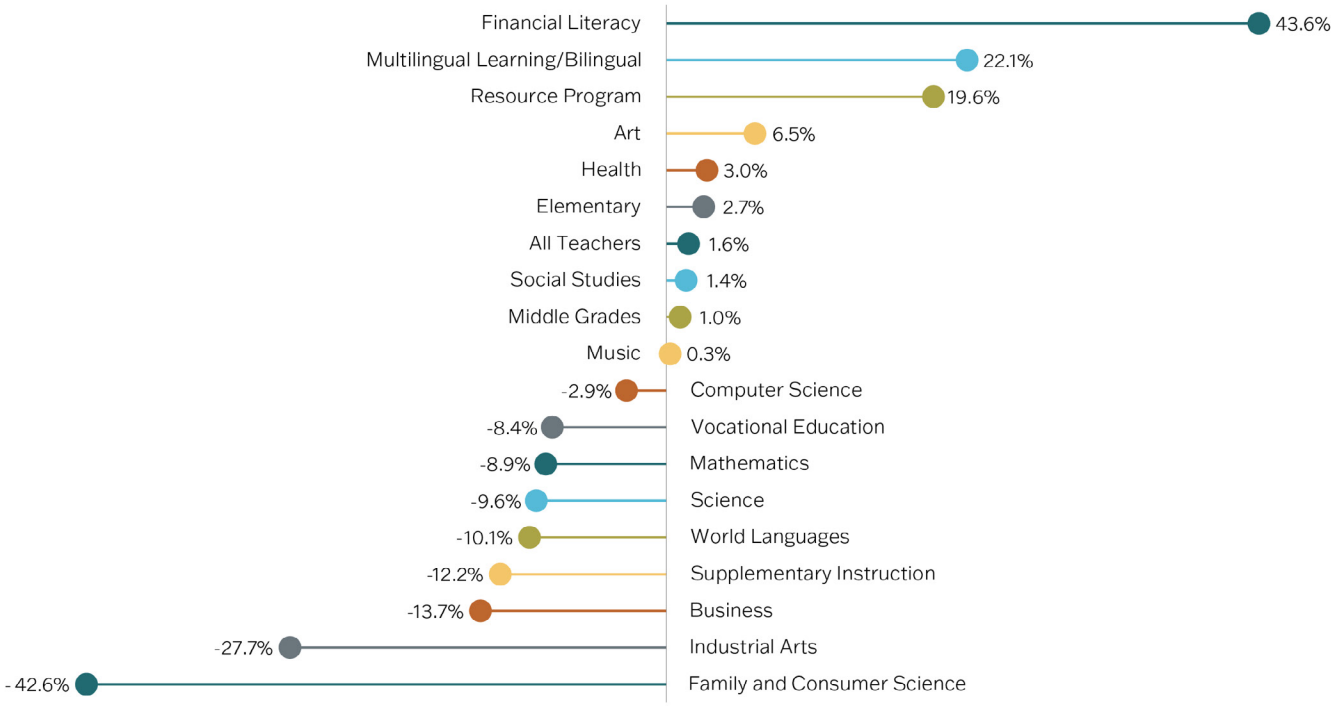
When reviewing the trends by subject area, some areas have seen more significant changes than others. For instance, there was a 22% increase in multilingual learning teachers from 2013-14 to 2023-24 (an increase of nearly 600 teacher FTEs as shown in Table 1). Figure 2 shows that there was a modest growth of about 2% during that same period for all teachers. Some critical fields, however, saw declines. Computer science had a 3% decrease during this period, a shift from the 1% increase documented in the prior year's report, some of which may be due to the removal of private schools from the analysis. In addition, world languages had a 10% decrease (around 400 FTEs), and mathematics and science each had around a 9% decrease (approximately 550 and 450 FTE teachers, respectively).

Table 1: Number (FTEs) of Teachers in New Jersey by Subject Area and Year

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
All Teachers	115,600	116,167	116,158	116,455	116,360	117,095	118,034	116,712	115,724	117,043	117,483
Mathematics	6,313	6,270	6,232	6,266	6,170	6,183	6,129	5,973	5,890	5,834	5,753
Computer Science	908	855	889	931	941	929	945	946	939	917	881
Science	4,773	4,767	4,750	4,710	4,675	4,639	4,659	4,549	4,453	4,411	4,317
Vocational Education	1,578	1,259	1,223	1,251	1,260	1,298	1,336	1,347	1,369	1,387	1,446
World Languages	4,166	4,087	4,098	4,075	4,022	4,020	3,976	3,860	3,809	3,788	3,747
Social Studies	4,263	4,279	4,260	4,259	4,232	4,249	4,279	4,226	4,222	4,320	4,324
Health	6,887	6,934	6,899	6,932	6,919	6,984	7,044	6,973	6,910	7,046	7,093
Music	3,523	3,521	3,528	3,507	3,545	3,567	3,577	3,521	3,477	3,519	3,533
Art	3,182	3,211	3,220	3,266	3,247	3,268	3,321	3,282	3,290	3,369	3,389
Multilingual Learning/ Bilingual	2,629	2,614	2,367	2,422	2,539	2,628	2,731	2,798	2,860	3,066	3,210
Resource Program	12,413	13,044	13,579	13,978	14,157	14,218	14,561	14,446	14,554	14,602	14,851
Supplementary Instruction	3,090	2,869	2,844	2,556	2,517	2,602	2,636	2,696	2,600	2,800	2,713
Business	1,039	1,043	1,015	992	985	950	945	950	919	903	897
Family and Consumer Science	600	558	525	493	463	448	446	407	380	364	344
Financial Literacy	94	108	102	115	108	115	123	123	112	140	135
Industrial Arts	1,106	1,110	1,056	984	938	917	871	821	795	802	800
Elementary	41,097	41,346	40,834	40,922	41,015	41,457	41,747	41,616	41,170	41,861	42,226
Middle Grades	11,423	11,821	12,238	12,310	12,233	12,181	12,334	12,044	11,879	11,680	11,540

Source: NJ SMART SMID extract

Figure 2: Percent Change in Number (FTEs) of Teachers by Subject Area, 2013-14 to 2023-24



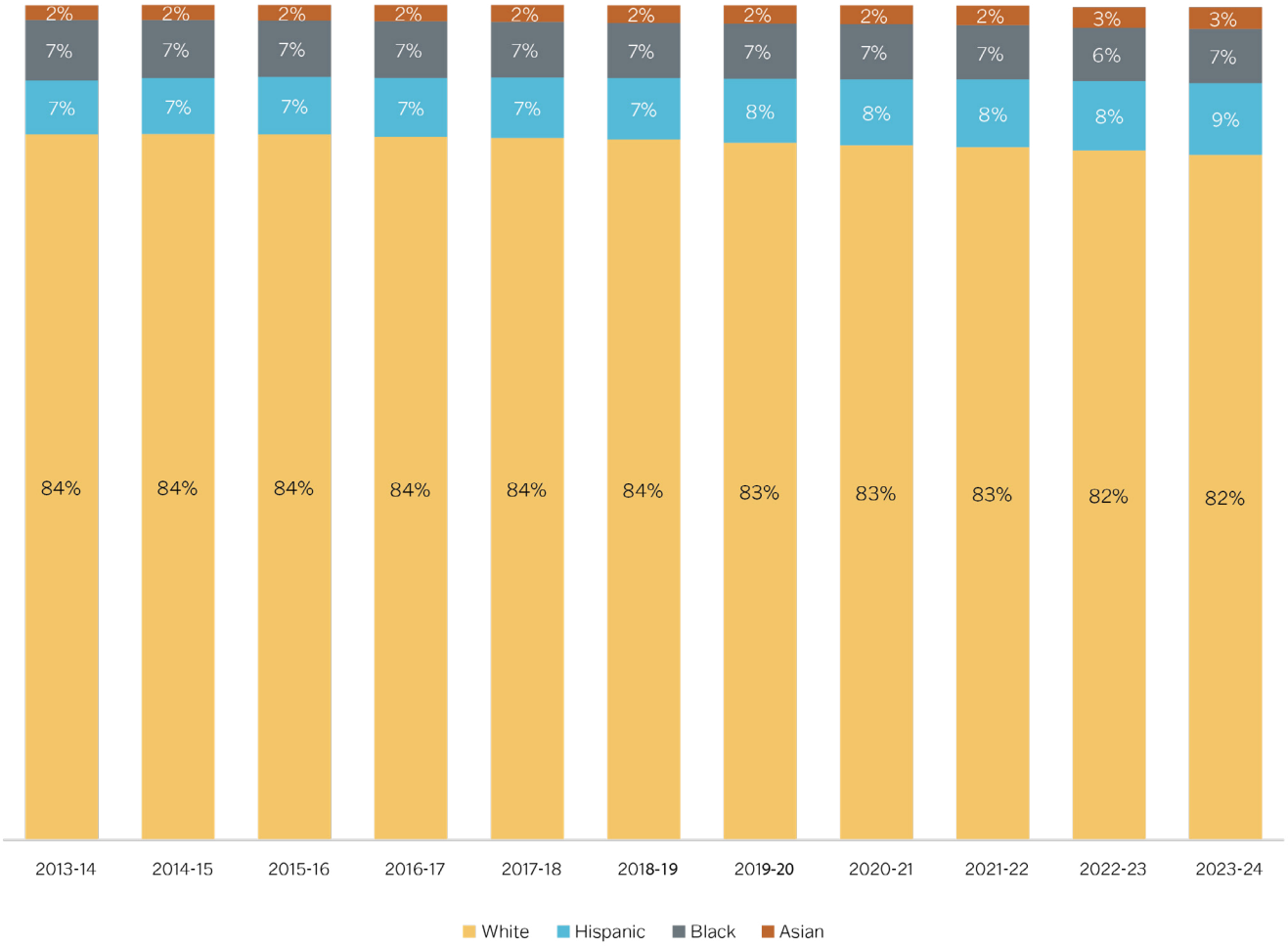
Source: NJ SMART SMID extract

Most teachers in New Jersey are white and/or female, and this has changed little over time. During the study period, the teacher workforce was between 76% and 77% female, and between 82% and 84% white, as shown in Figure 3. Over time, however, the proportion of white teachers decreased slightly, from 84% in the 2013-14 school year to 82% in 2023-24. In addition, the proportion of Black teachers declined substantially between 2013-14 and 2023-24 (-12% or a loss of around 700 teachers). Overall, the proportion of Hispanic teachers increased between 2013-14 and 2023-24 (33%, or around 2,500 teachers),[4] as did the proportion of Asian teachers (49%, or around 1,000 teachers).

When reviewing the teacher workforce by age, there has been an increase in the share of teachers aged 40 or older. In the earlier years of the analysis, about 43% of teachers were under 40 years of age; more recently, the proportion of younger teachers declined to 36%. Over the study period, the share of teachers aged 30 to 39 decreased from around 31% to approximately 26%, while the share of teachers aged 40 to 49 increased from around 24% to 31%. There was a slight decrease in the share of teachers aged 60 and older, from around 11% to 10%. Another way of examining teacher age is by tracking the median value over time. By this metric, the median age of teachers was consistently 47 in all years of the analysis except the most recent year (2023-24), when it increased to 48.

[4] "Teachers" here refers to the count of teachers and not their FTEs.

Figure 3: Proportion of Teachers by Race/Ethnicity



Note: Not reflected in Figure 3 is the category "Other," which ranged between 0.3% and 0.6% of teachers each year.

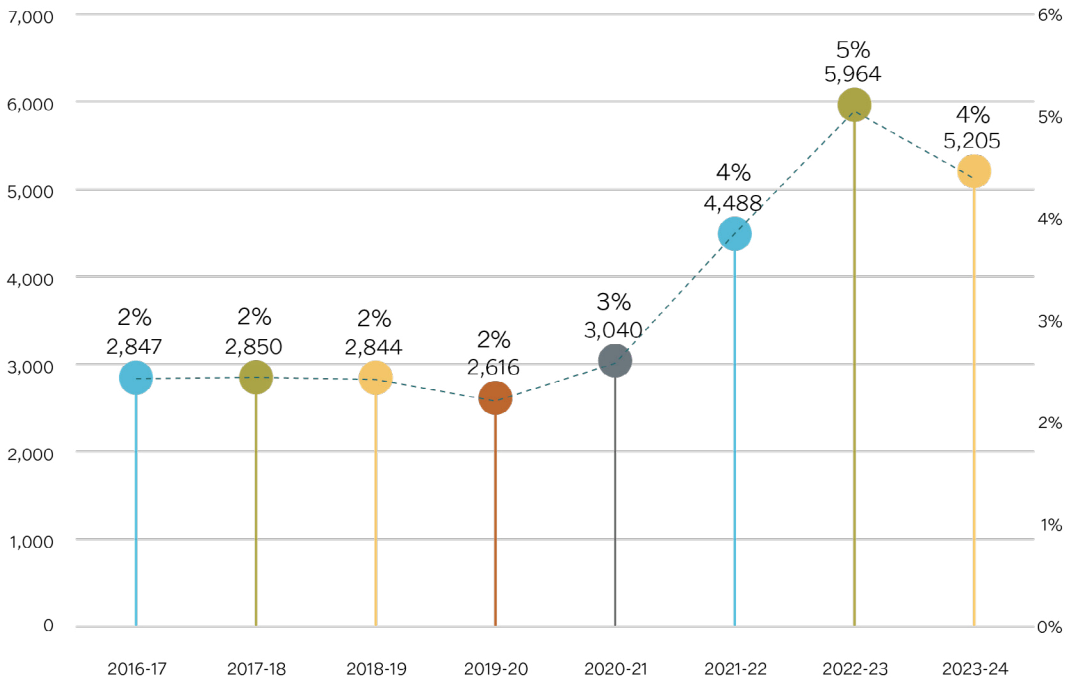
Source: NJ SMART SMID extract

Teacher Exits

An important component of this annual analysis is reporting the number of teachers who leave their positions each year, the reasons they leave, and trends in the characteristics of teachers who exit. Exits in this report are calculated as staff exits reported with a date range within the school year of the report.

The number of public school teacher exits has increased in recent years, but remains below 5% of the overall teacher workforce each year. In the first year of the exit analysis that includes teacher exit dates (2016-17), the number of teacher exits was around 2,800 (see Figure 4). Since then, the number of teacher exits per year has increased to around 5,000 per year, peaking in 2022-23 at nearly 6,000. As a share of the annual teacher workforce (number of teachers), the number of exits increased from around 2% annually to 4% in the most recent years.

Figure 4: Total and Proportion of Teacher Exits by School Year



Source: NJ SMART SMID extract

Over time, the reasons public school staff give for exiting their roles have changed, with fewer teachers not offered reemployment or retiring, and a greater share resigning without providing a reason. Retirement and resigning without a reason remain the most common reasons for teacher exits. Throughout the study period, the most commonly reported reasons for exiting district employment were retirement and resigning without providing a reason for the exit (see Table 2). There was an uptick in the proportion of teachers resigning and not providing a reason for their exit, from around 25% in the early years of this analysis to nearly 40% in the most recent three years. In addition, the proportion of exits attributed to retirements was trending downwards prior to 2020 (from around 22% to 19%), but then increased to 29% in the 2020-21 school year. The proportion has since returned to approximately 18% in the most recent three years. Thus, there may have been a temporary increase in retirements during the COVID-19 pandemic that has now subsided.

The proportion of exiting teachers who indicated leaving the profession altogether varied slightly between 1% and 2% over the study period. Movement between New Jersey school districts remains a common exit reason, accounting for between 16% and 17% of teacher exits in recent years.

Among the categories of teachers' exit reasons, three (retirement, left teaching, and death) count as permanent exits from the teacher workforce. Permanent exits have ebbed and flowed as a proportion of total exits, from between 20% and 30% of all teacher exits in a given year, primarily driven by retirements. Permanent exits remain around 20% in the most recent years, following the retirement spike in the 2020-21 school year. Permanent exits are discussed again later in this report.

Table 2: Teacher Reported Exit Reasons

Exit Reason Group	Exit Reason	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Left District, Still Teaching	In another New Jersey public school	311	334	428	399	348	716	1,034	836
		10.9%	11.7%	15%	15.3%	11.4%	16%	17.3%	16.1%
	In a public school distict outside of New Jersey	37	50	47	45	49	90	69	64
		1.3%	1.8%	1.7%	1.7%	1.6%	2%	1.2%	1.2%
	In a non-public school	23	S	24	30	S	25	33	24
		0.8%	S	0.8%	1.1%	S	0.6%	0.6%	0.5%
	In a college/ university	S	S	S	S	S	S	S	S
		S	S	S	S	S	S	S	S
On Leave Without Pay	Granted leave/ Sabbatical	75	94	73	48	138	71	74	69
		2.6%	3.3%	2.6%	1.8%	4.5%	1.6%	2%	1.2%
	Maternity leave	317	292	251	205	242	181	219	212
		11.1%	10.2%	8.8%	7.8%	8%	4%	3.7%	4.1%
Exited Teaching	Retired	617	559	550	495	895	853	1,093	925
		21.7%	19.6%	19.3%	18.9%	29.4%	19%	18.3%	17.8%
	Left teaching	48	45	59	78	38	85	70	65
		1.7%	1.6%	2.1%	3%	1.3%	1.9%	1.2%	1.2%
Change in Life Circumstances	Assumed home duties	69	62	68	47	74	112	91	75
		2.4%	2.2%	2.4%	1.8%	2.4%	2.5%	1.5%	1.4%
	Continuing education	S	S	S	S	S	S	S	S
		S	S	S	S	S	S	S	S
	Deceased	36	32	27	33	39	39	47	39
		1.3%	1.1%	0.9%	1.3%	1.3%	0.9%	0.8%	0.7%
	Prolonged illness	24	29	14	S	S	S	S	S
		0.8%	1%	0.5%	S	S	S	S	S
Other Exit Reasons	Resigned, no reason given	718	795	718	707	780	1,697	2,350	1,943
		25.2%	27.9%	25.2%	27%	25.7%	37.8%	39.4%	37.3%
	Not offered reemployment	561	533	565	479	402	586	677	744
		19.7%	18.7%	19.9%	18.3%	13.2%	13.1%	11.4%	14.3%
	Exited or resigned for another reason	S	S	S	S	S	S	168	178
		S	S	S	S	S	S	2.8%	3.4%

Note: "S" indicates that the data were suppressed.

Source: NJ SMART SMID extract

When reviewing teacher exits by individual characteristics such as sex and race/ethnicity, the most striking change is the proportion of exits among Hispanic, Black, and Asian teachers. When examining demographic traits – race/ethnicity and sex – of exiting teachers, it is useful to compare these figures to the traits of the teacher workforce overall. For example, as noted earlier in this report, New Jersey's teacher workforce remained around 83% white throughout the study period. When examining exits across the study period, there is a proportional decline in exits among white teachers from 79% to 73%. This decline, shown in Table 3, is accompanied by increases in the proportion of exits among Hispanic (+3.5 percentage points), Black (+1 percentage point), and Asian teachers (+0.9 percentage point). Hispanic and Asian teachers increased in their share of the teacher workforce, which explains their increase in the share of exits. But exits among Black teachers increased while Black teachers' numbers in the teacher workforce declined. Effectively, this means that there are fewer Black teachers in New Jersey's workforce as those who leave are not being replaced. In addition, exits among Hispanic teachers outpaced their increase in the workforce.

Exits by sex remain consistent, with females accounting for between 76% and 81% of exits each year. This is consistent with the overall workforce composition, of which approximately 77% is female.

Table 3: Teacher Exits by Race/Ethnicity and Sex

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
White	78.8%	76.2%	78.7%	78.8%	80.6%	75.8%	74%	73.1%
Black	10.2%	10.6%	9.7%	8.4%	7.5%	10%	10.8%	11.2%
Hispanic, Any Race	7.9%	9.9%	8.4%	8.8%	8.6%	10.3%	11.1%	11.4%
Asian	2.2%	2.4%	2.4%	2.9%	2.8%	2.8%	3.1%	3.1%
Other/Missing Race	0.5%	S	S	S	S	0.7%	0.5%	0.3%
Multiple Races Indicated	0.4%	S	S	S	S	0.04%	0.04%	0.04%
Female	77.9%	78.6%	78.4%	76.6%	81.3%	76.1%	78.6%	76.9%
Male	22.1%	21.4%	21.6%	23.4%	18.8%	23.9%	21.4%	23.1%

Source: NJ SMART SMID extract

Teacher exits by subject area remain relatively constant over time. Roughly one-third of exits each year are by elementary school teachers, though this has increased by about two percentage points over the period. This is consistent with the share of the teachers in elementary schools. Another 16% of exits were by support/resource teachers (who serve special-needs education populations), which stayed relatively consistent over time (see Table 4), while there was a two-percentage-point decrease in the share of middle school teacher exits, from 11% to 9%

Table 4: Teacher Exits by Subject Area

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Elementary School	33.9%	34.5%	34.3%	33.9%	34.9%	33.8%	36.2%	36.2%	34.9%
Middle School	11%	10.3%	10.8%	10%	9.4%	9.7%	10.3%	9%	10%
Art	3.2%	2.7%	3.5%	3.4%	3.8%	2.8%	3.1%	3.6%	3.3%
Business	0.5%	0.8%	0.9%	1%	0.9%	0.9%	0.8%	1%	0.9%
English	8.5%	8.5%	7.9%	8%	8.3%	9.4%	8.5%	8.7%	8.5%
Foreign Languages	3.9%	4.1%	4.6%	4.5%	3.3%	3.8%	2.9%	3.4%	3.7%
Health/Physical Education	5.2%	5%	5.3%	6.4%	5.6%	5%	4.7%	5.1%	5.2%
Family and Consumer Science	0.5%	0.4%	0.7%	0.6%	0.4%	0.3%	0.4%	0.4%	0.4%
Industrial Arts/Vocational Education	2.1%	2.1%	2.1%	2.3%	2.3%	2.5%	2%	2.2%	2.2%
Math	4.6%	6%	5.2%	4.2%	4.4%	4.5%	5.2%	4.8%	4.9%
Music	3.2%	3.3%	3.7%	3.3%	3.3%	3.8%	2.9%	3.5%	3.4%
Science	5%	4.6%	3.1%	4%	4%	4.2%	3.8%	4%	4%
Social Studies	3%	2.2%	2.3%	3.1%	2%	2.9%	3%	2.7%	2.7%
Support/Resource	15.5%	15.6%	15.5%	15.3%	17.6%	16.3%	16.3%	15.5%	16%

Source: NJ SMART SMID extract

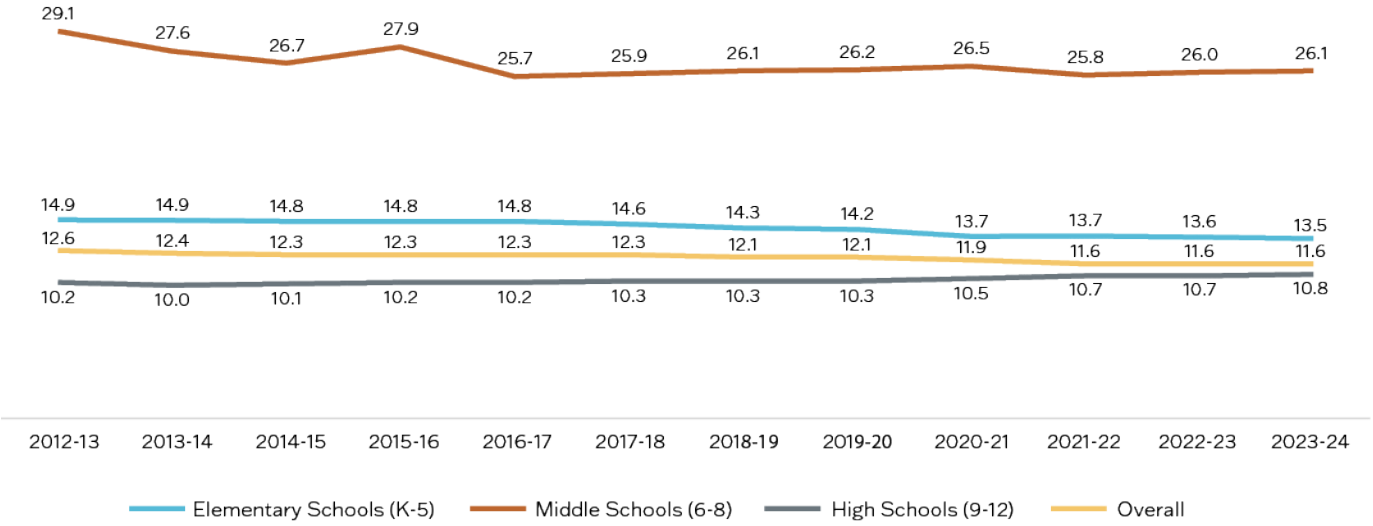
Workforce Projections and High Turnover Areas

To begin to project the future needs of New Jersey's teacher workforce, researchers first calculated STRs – both overall and within grade-level, demographic, and subject-area subgroups – across the 11 years included in this analysis (2013-14 to 2023-24). In these STR calculations, student headcounts are the numerator and teacher FTEs are the denominator.

For the two future school years (2024-25 and 2025-26) for which student data are not yet available, analysts extrapolated from the available data to predict student enrollment and estimate the STR. The analysis of these statistics has two elements. First, examining the trends in STR allows one to see whether and in what groups additional teachers are needed. Second, comparing these (real and projected) STRs to national and state benchmarks helps determine if staffing levels are adequate.

Overall STRs have improved slightly. In terms of the statewide STR, Figure 5 shows a modest decrease in the number of students per teacher FTE in New Jersey's public school system, from 12.4 in 2013-14 to 11.5 in 2023-24. Projections indicate a slight decrease in the next two years to around 11.4. When researchers examined STR trends categorized for elementary (K-5), middle school (6-8), and high school (9-12), a more nuanced picture emerged. The average STR for each level varies from 10.8 students per teacher in high school, compared with 25.4 students per teacher in middle school. In elementary school, the STR is around 13.4 students per teacher. STRs within each of these grade levels are predicted to remain stable in the next two years.

Figure 5: Overall Student-to-Teacher Ratios by Grade Level

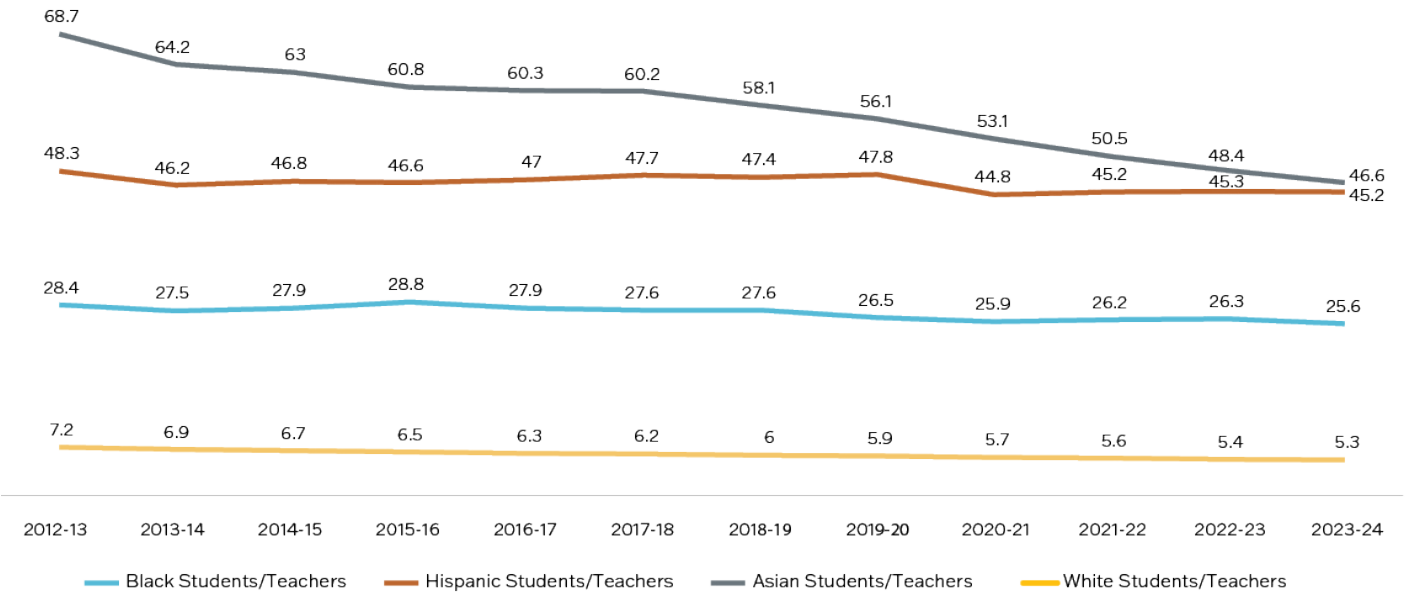


Source: NJ SMART extract

Demographic changes in the student population and teacher workforce have altered STRs by race/ethnicity. Heldrich Center researchers noted earlier in this report that while the proportion of white teachers remained relatively constant over the study period, the proportion of Hispanic and Asian teachers slightly increased, and the proportion of Black teachers declined. Here, by focusing on the STR, researchers examined the changes in the teacher workforce as they relate to demographic changes in New Jersey's student population. This analysis of the STRs compared student headcount by race/ethnicity to the number of teachers of the same race/ethnicity. Figure 6 shows that the STR for white students and teachers declined by 29%, from 6.9 in 2013-14 to 5.3 in 2023-24. The resulting trend is driven by a relatively static number of white teachers combined with a decline in the number of white students.

The STRs for Black and Hispanic students and teachers declined slightly, with the STR for Black students and teachers declining from 27.5 in 2013-14 to 25.6 in 2023-24 and the STR for Hispanic students and teachers dropping from 46.2 in 2013-14 to 45.2 in 2023-24. The STR for Asian students and teachers declined substantially over time from 64.2 in 2013-14 to 46.6 in 2023-24. This decline was driven by the increasing number of Asian teachers in the state.

Figure 6: Student-to-Teacher Ratios by Shared Student and Teacher Race/Ethnicity



Source: NJ SMART extract

Staffing increases are likely needed in multilingual learning and computer science. Heldrich Center researchers examined STR trends in three subject areas – computer science, multilingual learning, and special education. For computer science, they compared headcount enrollment in high schools to the number of teacher FTEs in computer-related job codes.[5] For multilingual learning, they compared the number of students classified as Limited English Proficient with the number of teacher FTEs in multilingual learning job codes.[6] For special education, they compared the number of students classified as special education status to the number of teacher FTEs in resource and support programs.[7]

Over the study period, the STR for computer science increased slightly from 455.1 in 2013-14 to 481.1 in 2023-24; projections indicate that it will decline to 452.4 in 2025-26. The number of computer science FTEs varied over the study period from around 900 to almost 950, dipping to 881 in the 2023-24 school year. While there are five job codes that directly correspond with the definition of computer science, it may be that staff with other job codes are taking on this role without being documented as such. Still, the STRs recorded here indicate a need for increased staffing in this subject area, as researchers note in the appendix, although their calculated STRs are not directly comparable to class size, since subject specialist teachers serve multiple classrooms of students each day. But in class size terms, 16 is at the upper bound of what is recommended by New Jersey state law (N.J. Admin. Code § 6A:14-1.2).

By contrast, the STRs for multilingual learning increased substantially over the study period. In 2013-14, the multilingual learning STR was 25.1; it had grown to 38.9 by 2023-24. The increased STRs are driven by rapid growth in the number of limited English proficient students in the state, which has outpaced otherwise significant growth in the number of FTEs in this subject area. These trends suggest that the hiring of multilingual learning instructors will need to continue to ramp up to meet increasing demand as the state's limited English proficient student population continues to grow.

[5] The job codes in this field are 1962, 2525, 2593, 2712, and 2718.

[6] The job codes in this field are 1485 and 1486.

[7] The job codes in this field are 2405 and 2406.

In terms of special education, the observed STR declined over time – from 16.9 in 2013-14 to 15.3 in 2023-24. Projected student numbers indicate that the STR will decrease further to 14.5 in the 2025-26 school year. Adequate STRs for special education depend on the specific needs of the student population; as stated above, 16 is at the upper bound of what is recommended by New Jersey state law (N.J. Admin. Code § 6A:14-1.2). This suggests that staffing in recent years has increased to meet that threshold.

Table 5: Student-to-Teacher Ratios and Projections for Select Areas

School Year	High School Students to Computer Teacher FTEs	Limited English Proficient Students to Multilingual Learning Teacher FTEs	Special Education Students to Resource Program Teacher FTEs
2013-14	455.1	25.1	16.9
2014-15	483.9	27.8	16.3
2015-16	465.7	31.5	15.7
2016-17	444.2	31.5	15.4
2017-18	439.3	33.1	15.3
2018-19	445.4	33.4	15.5
2019-20	440.7	35.9	15.4
2020-21	441.3	33.3	15.3
2021-22	446.6	36.3	14.9
2022-23	460.1	38.0	15.1
2023-24	481.1	38.9	15.3
2024-25 (projected)	452.4	39.8	14.7
2025-26 (projected)	452.0	40.8	14.5

Source: NJ SMART SMID extract

Teacher Pipeline[8]

Another way of projecting the sufficiency of the teacher workforce is by comparing the rate of entry into the profession (inflow) to the rate of exit from the profession (outflow). Notably, the 2024 New Jersey teacher workforce report showed that of the 4,521 students who enrolled in a New Jersey postsecondary education institution between 2013-14 and 2015-16 and declared education as their major, only about 23% eventually became teachers in New Jersey. Therefore, comparing the inflow to and outflow from the profession can highlight the future needs of New Jersey's teacher workforce. Inflow is described here as the number of provisional teaching certificates conferred in a given year; they define outflow as the number of teachers whose reason for exit was listed as "retirement," "left teaching," or "deceased." Using provisional certifications as an indicator overestimates inflow; not everyone who earns a provisional teaching certification enters employment at a public school. As such, provisional certifications likely represent an upper-bound

[8] The 2024 teacher workforce report presented outflow for all staff and did not limit the analysis to teachers only. This current analysis provides a more accurate depiction of the teacher replacement rate by using only public school teachers in the calculation.

estimate of the potential replacement of exiting teachers. Outflow could be underestimated insofar as some teachers who leave or retire might not report their reason for leaving. From these inflow and outflow measures, researchers derive the rate of replacement as the number of new provisional certifications per exiting teacher.

Table 6 presents this statistic over time and reveals a concerning trend. While in the first four years in which exit data are available (2016-17 to 2019-20), the rate of replacement was greater than 20:1, this rate declined to 10:1 in 2020-21, then increased to 11:1 in 2021-22. The rate then dropped to 5:1 in the 2022-23 school year before rebounding slightly to 9:1 in the most recent year. While this rate remains well above a one-to-one replacement rate, there is a concerning downward trend. In the 2016-17 school year, there were nearly 30 newly certified teachers for every one individual permanently exiting the field—a figure that has declined by approximately two-thirds in recent years.

Table 6: Flows Into and Out of Teaching

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Provisional Certificates	20,584	17,884	15,111	12,900	10,091	11,355	6,583	9,598
Permanent Exits								
Retired	617	559	550	495	895	853	1,093	925
Left Teaching	48	45	59	78	38	85	70	65
Deceased	36	32	27	33	39	39	47	39
Permanent Exits	701	636	636	606	972	977	1,210	1,029
Ratio	29.4	28.1	23.8	21.3	10.4	11.6	5.4	9.3

Source: NJ SMART extract

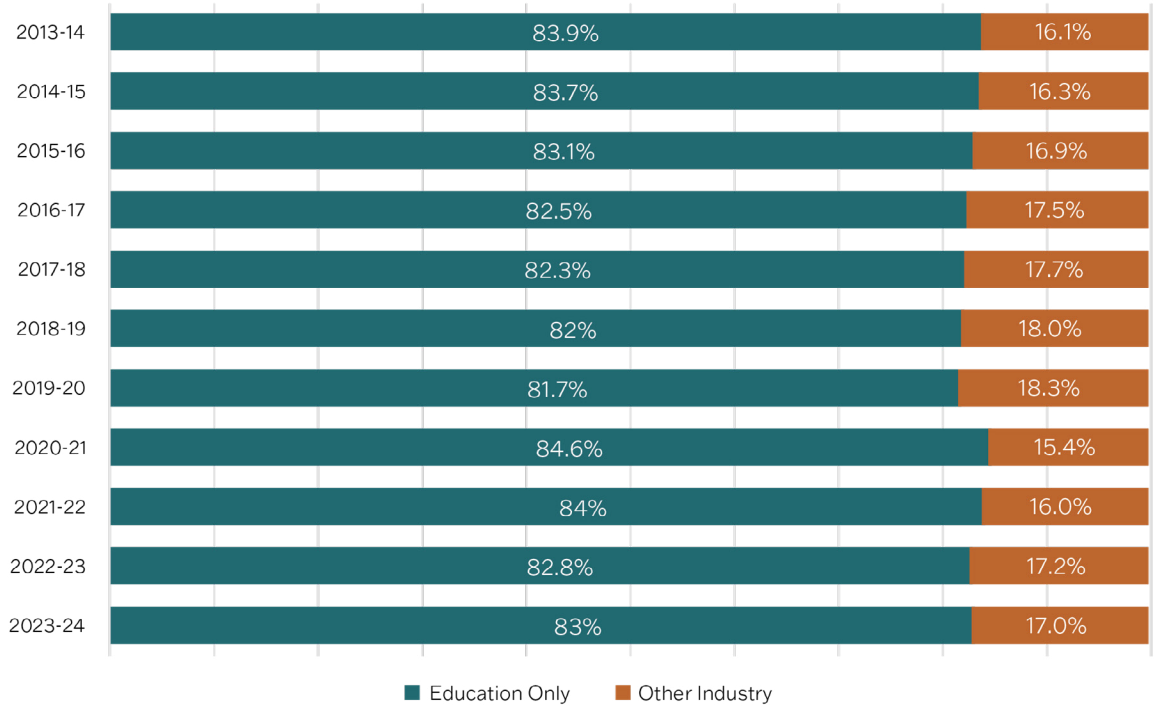
Case Study: Non-Teaching Employment

This section provides an initial overview of supplemental employment held by public school teachers in New Jersey. Stakeholders expressed interest in this topic, particularly concerning whether teachers' salaries were leading some to seek additional employment to make ends meet. This section highlights the proportion of New Jersey's teachers holding employment outside of the education industry, including their workforce experiences and earnings obtained through this supplemental employment. Researchers matched those working in public schools in New Jersey to their quarterly wage records and then assessed the industries of employment. Future work on this topic will be informed by stakeholder feedback and will explore questions such as how supplemental employment affects teacher retention as well as the industries and earnings of those who exit the field.

About 16% to 18% of teachers hold supplemental employment outside the education industry. Figure 7 shows that over time, the proportion of teachers working supplemental employment outside the education industry has remained relatively consistent between 16% and 18%. Future analyses will explore employment within the education industry to determine the proportion of teachers who work supplemental jobs within the education sector. Of those working outside the education industry, many (47%) only do so for one wage quarter per year, and around a quarter of teachers do so throughout the year. This is consistent with seasonal work during school breaks, as most teachers who work outside the education industry work mainly during the first quarter of the school year (July through September) and the last quarter of the school year (April to June).

Among teachers with supplemental employment outside of the education sector, median earnings were around $3,000[9] in the 2023-24 school year. Accommodation and food services, arts, entertainment and recreation, healthcare and social assistance, and other services (except public administration) are the major industries of choice for teachers who hold supplemental work outside of the education industry.

Figure 7: Proportion of Teachers Working Outside of Education Industry



Source: NJ SMART submission data and NJDOL wage and employer data

Those who earn income outside the education industry tend to have lower teaching salaries than those who do not. As indicated by median salary, teachers who do not hold employment outside of the education industry tend to earn about 6% more than their peers who hold employment outside of the education industry. The median teaching salary of those who earned income outside of the education industry was about $76,000 in the 2023-24 school year, compared to the median wage of about $81,000 for those who did not. This earnings differential has decreased over time, from a 9% difference in 2013-14 to a 6% difference in 2023-24. Notably, the average extra wages of about $3,000 that teachers working outside the education industry earn from supplemental employment can be compared to the teaching salary difference of $5,000 between those who only teach and those who earn supplemental wages outside teaching. This comparison suggests that teachers working supplemental jobs are trying to cover the wage differential and earn as much as their colleagues who only earn wages from teaching.

[9] All references to median wage in this report refer to a fuzzy median wage. It is obtained by taking the average of the 45th and 55th percentiles of observation to avoid any risk of data disclosure typically associated with the traditional median (50th percentile).

Conclusion and Next Steps

This second annual report on the state of New Jersey's K-12 teacher workforce presents a high-level descriptive analysis based on over a decade of data for a key segment of the education labor market. Heldrich Center researchers sought to understand how the demographic traits of New Jersey's public school teachers have changed over time, to assess trends in teacher exits, and to project teacher demand and supply into the future. Researchers analyzed data from NJSDS, including information about teachers, teacher certifications, public school students, and earnings outside of teaching. Their analyses yielded the following key findings:

- Overall, the number of teachers (FTEs) in the state remained stable at about 118,000 FTEs, with change year over year between ±1%.
- Some areas have seen more significant changes than others in the number of teachers, with math and science teachers decreasing by around 9% in the study period. Computer science had a 3% decrease, a shift from the 1% increase in the prior year, some of which may be due to the removal of private schools from the analysis.
- The sex and race/ethnic composition of New Jersey's teacher workforce changed little over time. During the study period, between 76% and 77% of the teacher workforce was female, and between 82% and 84% was white.
- The number of teachers exiting their roles remained relatively consistent over time, with a potential decrease in the most recent year. Retirements and unexplained resignations remain the most common reasons for teacher exits.
- Staffing increases are likely needed in multilingual learning and computer science, as STRs in these areas either increased (indicating fewer teachers per student) or remained high.
- The ratio of newly certified teachers to those permanently exiting the profession decreased over time, which may challenge the teacher workforce statewide and in specific localities.
- About 16% to 18% of teachers work supplemental employment outside of the education industry in New Jersey. Many of these teachers were only employed outside of education for a single quarter of the year, and earnings were relatively low.
- Teachers who engage in supplemental employment outside of the education industry tend to earn around 6% less than their peers who do not engage in supplemental work, and their outside earnings, on average, make up for this difference in teaching salary.

References

ACT Inc. (2015). *The conditions of future educators 2015*. https://www.act.org/content/dam/act/unsecured/documents/Future-Educators-2015.pdf

Allegretto, S. (2024). *Teacher pay rises in 2023 – but not enough to shrink pay gap with other college graduates*. Economic Policy Institute. https://www.epi.org/publication/teacher-pay-in-2023/

Bartanen, B., & Kwok, A. (2023). From interest to entry: The teacher pipeline from college application to initial employment. *American Educational Research Journal*, *60*(5), 941-985. https://doi.org/10.3102/00028312231185733

Bryant, J., Ram, S., Scott, D., & Williams, C. (2024). *K-12 teachers are quitting. What would make them stay?* McKinsey & Company. https://www.mckinsey.com/industries/education/our-insights/k-12-teachers-are-quitting-what-would-make-them-stay

Douglas., D., Obadan, A., Palius, M., & Walsh, S. (2024). *New Jersey's teacher workforce landscape: 2024 annual report*. John J. Heldrich Center for Workforce Development, Rutgers University. https://heldrich.rutgers.edu/wp-content/uploads/2024/04/New_JerseyE28099s_Teacher_Workforce_Landscape_2024_Annual_Report.pdf

Putman, H., Hansen, M., Walsh, K., & Quintero, D. (2016). *High hopes and harsh realities: The real challenges to building a diverse workforce*. Brown Center on Education Policy at Brookings. https://www.brookings.edu/wp-content/uploads/2016/08/browncenter_20160818_teacherdiversityreportpr_hansen.pdf

Saenz-Armstrong, P. (2021). *NCTQ state of the states 2021: State reporting of teacher supply and demand data*. National Council on Teacher Quality. https://www.nctq.org/publications/State-of-the-States-2021:-State-Reporting-of-Teacher-Supply-and-Demand-Data

Appendix: Technical Methodology

Heldrich Center researchers completed this analysis by using data from NJDOE's NJ SMART data system, data from NJDOL, and other data contained in NJSDS, which is New Jersey's centralized longitudinal platform for administrative data. This work focused on data that came from the SMID extract, which provided detailed information on staff members in each New Jersey local education agency, certification and endorsement data that provided details on teachers' certifications, aggregate student-level data from the NJ SMART data system, and Unemployment Insurance wage and employer data from NJDOL. Researchers assessed the changes in the teacher workforce in New Jersey by addressing five research questions about the teacher workforce in New Jersey.

Research Questions

1. What are the observed trends in New Jersey's teacher workforce by the number (FTEs) of teachers and by subgroup, including race, sex, age, and subject area?

2. What are the trends in and reasons for exiting the public school teacher workforce in New Jersey by subgroup, including race, age, subject area, and job category?

3. What are the teacher workforce projections for various subject areas, and what subject areas are at higher-than-average risk of teacher turnover?

4. What are the trends in the rate of replacement in the teacher workforce in New Jersey?

5. To what extent are New Jersey's teachers holding employment outside of the education industry? What types of workforce experiences and earnings are obtained through supplemental employment?

Data Analysis

The Heldrich Center addressed these research questions through four main streams of analysis. Researchers first analyzed the current teacher workforce landscape by various characteristics over time, and then assessed the trends and reasons for teacher exits by subgroup, including job categories. Researchers also reviewed K-12 student data, staff data, and certification and endorsement data to make projections about the teacher workforce needs for New Jersey in bilingual education and computer science as well as other subject areas that are at risk of teacher shortages. Finally, to assess the trends in supplemental employment held by public teachers in the state, researchers conducted a case study analyzing whether teachers held employment outside of the education industry throughout the year. The analysis explored the proportion of teachers doing so, examined the primary industries in which they worked, and compared their earnings to the earnings of their peers who do not hold supplemental employment. Provided below is more information about the data sources and how they were used in this analysis.

Data Source: NJDOE

NJ SMART

To analyze the current teacher workforce landscape and pipeline, assess teacher exits by subgroup, and make projections, the Heldrich Center research team used NJ SMART data, which are stored within NJSDS, between the 2013-14 and 2023-24 school years. For each year, teachers were defined using the unique SMID within these data files and were limited to those who held a certificated teaching position (job code between 1000 and 2799) within the local education agency for at least a portion of their time. Full-time administrators, certificated non-teaching positions, and non-certificated staff were not included in this analysis.

Analyzing these staff-level data enabled researchers to understand the roles individuals are serving in their district and to create trends for changes in staffing levels by subject over time. Specifically, they calculated the total FTE for teachers within the job code range of 1000 to 2999. These job codes encompass categories such as elementary school, middle school (grades five to eight), art, business, English, world languages, health/physical education, family and consumer science, industrial arts, mathematics, financial literacy, music, high school science, high school social studies, supplementary instruction, resource program, teacher coach coordinator leader, vocational education, computer science multilingual learning,. See Table A-1 for specific job codes assigned to each subject area.

Table A-1: Crosswalk of Subject Areas and Job Codes

Subject	Job Code(s)
Mathematics	1900 to 1999
Computer Science	1962, 2525, 2593, 2712, 2718
High School Science	2200 to 2299
English	1400 to 1499
Elementary School	1000 to 1999
Middle School	1100 to 1199
Vocational Education	2500 to 2999
World Languages	1500 to 1599
High School Social Studies	2300 to 2399
Health/Physical Education	1600 to 1699
Music	2100 to 2199
Art	1200 to 1299
Multilingual Learning Teacher	1485, 1486
Teach Coach Coordinator Leader	2410, 2412
Resource Program	2405, 2406
Supplementary Instruction	2400, 2401
Business	1300 to 1399
Family and Consumer Science	1700 to 1799
Financial Literacy	2001
Industrial Arts	1800, 1899

Detailed data on race/ethnicity from NJ SMART were combined to develop race/ethnicity variables to enable comparison and limit the impacts of required suppression rules due to low observations of certain racial and ethnic demographics. In doing so, five race/ethnicity identifiers were created: non-Hispanic Asian (Asian), non-Hispanic Black (Black), Hispanic (Hispanic), non-Hispanic white (white), and other. The other category includes teachers identifying as American Indian/Alaska Native and/or Native Hawaiian/Pacific Islander. Similarly, age was divided into categories (less than 30, 30 to 39, 40 to 49, 50 to 59, and 60 or above), and the proportion and median age within each age category was reported. Readers should note that the age variable contained implausible values likely due to random error in data input, so researchers replaced everyone with an age less than 21 years with a missing value.

Researchers analyzed teacher exits in two ways. In the first set of analyses – which includes breakdowns by race, sex, grade level, and subject area, and by reason for exit – researchers assessed all exits from district employment. District exits include permanent exits from teaching like retirement, leaving teaching, and death, as well as potentially non-permanent exits, including employment in other districts (inside or outside New Jersey, in non-public schools or colleges/universities), sabbatical, maternity leave, assuming home duties, prolonged illness, and continuing education. Teacher exits in these analyses were measured as the counts and proportion of people leaving the teaching profession in New Jersey in a school year. For the later analysis of flows into and out of teaching, researchers focused on the ratio of new provisional certifications to permanent exits – those attributed to retirement, death, and intentionally leaving teaching.

Certification and Endorsement Data

Researchers analyzed state teaching certification and endorsement data between 2010 and 2024. Individuals pursuing teaching certifications must fulfill an endorsement that identifies the type(s) of subject area(s) they can teach. Since endorsements can be conferred by NJDOE at any time, all types of endorsements conferred for each calendar year were included. Because individuals may receive multiple endorsements, figures related to endorsements should not be interpreted as the number of new teachers or newly endorsed teachers, but instead as the number of teachers who received the credential that year. However, researchers included provisional endorsement by subject area as a proxy for new endorsements, to facilitate projections and comparisons with teacher exits over time, and to give an idea of areas likely to be at risk.

Researchers used both certification and endorsement data, NJ SMART data, demographic data for K-12 students, and publicly available data on adequate STRs to measure the propensity of teaching staffing levels to "adequately meet teaching needs" or be at "higher-than-average risk" of teacher turnover or program elimination. This measure is operationalized as the STR. The determination of the STR constitutes a pivotal aspect of this analysis, requiring a series of methodological and deliberate steps. Researchers began by identifying student enrollment across different subject areas and aligning them with the corresponding teacher categories within the specific job code range of 1000 to 2999. For each subject area, the STR was calculated by dividing the total number of enrolled students by the FTE count of teachers with the relevant endorsements. This analysis is not meant to describe a typical class size for these teachers but rather to gain an understanding of the number of students relative to the number of certified teachers. Researchers then further categorized the STR, breaking it down by educational levels, such as elementary and middle school, as well as by specialized student groups, including multilingual learning, computer education, and special education.

Data Source: NJDOL

Unemployment Insurance Wage and Employer Records

To analyze supplemental employment among teachers, the research team used Unemployment Insurance wage and employer records within NJSDS. Researchers identified public school teachers in each year of the analysis from the 2013-14 school year to the 2023-24 school year by using their job codes and assigned county codes. Researchers linked Unemployment Insurance wage records and employer records to get the industry classification of employers. They then matched public teachers to the linked Unemployment Insurance wage and employer records based on common identifiers.

To facilitate the matching process, researchers converted wage years to school years. Each school year runs from September to June; quarterly wages are reported based on the quarters in a year. For example, quarter one represents January to March. To align wage year to school year for the 2012-13 school year, the annual wage record was defined by summing the wages from 2012 quarter three through 2013 quarter two, representing wages from July 2012 to June 2013.

About 99% of public school teachers were matched to their Unemployment Insurance wage and employer records. For each matched wage record, researchers defined the industries an individual works in based on their employer's two-digit North American Industry Classification System code and its associated industry sector as listed in NJDOL's 2023 occupational employment and wage estimates for New Jersey. Researchers limited the sample for this analysis to only public school teachers who had a wage record in at least the educational services industry (North American Industry Classification System code 61). Researchers then summed wages by quarter and industry, as some individuals had multiple wage records from different employers within the same industry in the same quarter. The annual wage was calculated by summing wages for the four quarters included in a school year.

Analytic Limitations

Apart from some of the limitations already highlighted, the analysis was confined to state-level estimates, which may overlook local- and/or school-level elements that uniquely affect teachers. By complying with data security and confidentiality requirements associated with NJSDS data use standards, researchers also combined and/or suppressed categories with few records, constraining the depth of the analysis. These practices, while essential for data security and confidentiality requirements, limit the scope of this analysis. Finally, it is important to note that longitudinal data require consistent tracking over time. Any interruptions or inconsistencies in data collection may affect the analysis, so caution should be exercised in interpreting the results in areas where these inconsistencies may be present.

There are two primary limitations to the Unemployment Insurance wage data for the analysis related to teachers' supplemental employment. First, employment data are limited to those who work within New Jersey in jobs covered by New Jersey Unemployment Insurance. As such, they do not account for supplemental employment such as independent contractor or gig work that teachers may take on or any employment outside of the state. In addition, Unemployment Insurance wage records in New Jersey provide the industry but not the occupation of employment, which limits insight into the types of jobs teachers take on outside of education.

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About the Heldrich Center

The 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 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.