



District of Columbia  
Office of the State Superintendent of Education

# DISTRICT OF COLUMBIA TEACHER WORKFORCE REPORT

October 2019



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# Executive Summary

This report shares foundational data on the District of Columbia’s teacher workforce so that organizations across the city can collaborate on issues, policies, and supports that will help public schools recruit, develop, and retain the teachers they need.

The data in this report were collected from 6,922 teachers working across 50 public and charter local education agencies (LEAs)<sup>1</sup> in 229 schools that served 89 percent of all students in the District of Columbia, in the 2018-19 school year.<sup>2</sup> The first section of the report describes the current state of the teaching workforce with a focus on characteristics that are related to teacher effectiveness and student achievement: teacher diversity, experience, and evaluation results.<sup>3</sup>

- *Teacher Diversity:* Teacher racial diversity is important for all students and especially for students of color, who comprise 90 percent of students in the District.<sup>4</sup> DC teachers are more racially diverse than teachers nationally: In the 2018-19 school year, at least 62 percent of DC teachers were teachers of color,<sup>5</sup> compared to roughly 29 percent of teachers nationwide in the 2015-16 school year.<sup>6</sup> However, the teacher population of the District is not fully reflective of the student population, an incongruity that is particularly true in the Hispanic/Latino population in wards 1 and 4.
- *Teacher Experience:* Research suggests that teachers improve as they gain more experience, but improvements plateau beyond year five. In DC, one in 10 teachers (11 percent) were in their first or second year of teaching, while the majority (58 percent) had more than five years of experience.
- *Teacher Effectiveness:* In DC, LEAs have the autonomy to define what effective teaching looks like at their LEA through their teacher evaluation rating system. In this report, teacher evaluation results are aggregated across many different LEA evaluation systems and used as an indicator of the overall effectiveness of the teacher workforce. While these distinct systems

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<sup>1</sup> Local education agency (LEA) is an entity that operates public elementary and secondary schools. DC Public Schools (DCPS) is its own LEA and each charter network is its own LEA. Each LEA creates its own set of policies and helps ensure the on-the-ground implementation of federal and state policies.

<sup>2</sup> The data used for this report comes from LEAs that are part of the Staffing Data Collaborative, a partnership between OSSE and TNTP. For more information visit <https://osse.dc.gov/publication/dc-staffing-data-collaborative>.

<sup>3</sup> Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. (2017). The Long-Run Impacts of Same-Race Teachers. *IZA Discussion Paper Series, 10630*. Retrieved from <http://ftp.iza.org/dp10630.pdf>.

<sup>4</sup> While many facets of diversity are critical to students’ experiences in school, this report focuses on race, in part due to the prominence of research around its importance and because data related to other types of teacher diversity (e.g., language of origin, socioeconomic status) are limited. For an overview of some of the research related to teacher racial diversity, see [The State of Teacher Diversity](#) (The Shanker Institute).

<sup>5</sup> Teachers of color includes teachers who identify as Black/African American, Hispanic/Latino, Asian, Native American, or More than one Race.

<sup>6</sup> U.S. Department of Education (2019). *A Slightly More Diverse Public School Teaching Workforce*. <https://nces.ed.gov/blogs/nces/post/a-slightly-more-diverse-public-school-teaching-force>

allow individual LEAs to tailor evaluation systems to their local visions and contexts, the resulting evaluation data is challenging to interpret as the bar for effective teaching looks different at each LEA. In the 2017-18 school year in DC, almost three in four teachers (73 percent) received an evaluation rating Effective or higher (as defined by the LEA), while 17 percent received a rating below Effective.<sup>7</sup>

This report also examines workforce trends—namely teacher supply and demand—that influence schools’ ability to recruit and retain an effective and diverse teacher workforce. These high-level trends stem from a range of interrelated talent systems, policies, and practices.

**Teacher demand** refers to the number of positions that need to be filled in the city. Any open position can be costly to LEAs, and unfilled vacancies negatively impact students, as these positions are often filled by long-term substitutes or underprepared late hires.<sup>8</sup>

- *Overall demand:* Although 20 percent of all teaching positions were open between the end of the 2017-18 school year and the beginning of the 2018-19 school year, the majority of these positions were filled by Oct. 5, DC’s enrollment audit date. Only 2 percent of positions remained vacant on this date.
- *Subject-specific vacancies:* Some subjects are harder to fill than others. The subject areas with the highest number of unfilled vacancies were Elementary and Special Education.
- *Vacancies by Ward:* Ward 7 had the highest rate of unfilled vacancies with 3 percent of positions vacant on Oct. 5, as compared to 2 percent or less in all other wards.

**Teacher supply** refers to the number of teachers who fill open positions and the programs that prepare them for work in the classroom.

- *Sources of supply:* There are numerous sources of supply for teachers in DC. Among teachers who filled open positions in the 2018-19 school year, about half (54 percent) were experienced teachers who came from outside of the city, 28 percent transferred from another LEA within DC, and 18 percent were new to teaching.
- *Local Educator Preparation Providers (EPPs):* Local EPPs represent one source of talent for DC’s LEAs, though far fewer teachers come directly from EPPs than from other school systems. Local EPPs under-produced completers in a few high-demand subjects such as math and over-produced in a few low-demand subjects such as social studies.
- *Diversity of the Supply:* The racial diversity of new hires roughly mirrored the racial diversity of the broader teacher workforce in DC.
- *Effectiveness of the Supply:* New hires received lower evaluation results, on average, compared to all teachers in the city.

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<sup>7</sup> Ten percent of 2018-19 teachers did not receive a rating in the 2017-18 school year.

<sup>8</sup> Levin, Mulhern, and Schunck. (2005). *Unintended Consequences: The Case for Reforming the Staffing Rules in Urban Teachers Union Contracts*. New York: TNTP.

Demand for teachers is largely driven by two factors:

- *Student Enrollment:* Enrollment in the city has increased 3 percent annually between the 2014-15 school year and the 2018-19 school year, which has increased the need for teachers. Over the same time period, the total number of teaching positions in the city increased by 2 percent annually.
- *Teacher Retention:* When teachers leave, new teachers must be hired. DC's within-school retention rate (70 percent) was slightly lower than benchmarks attained by other national or urban school systems. However, retention rates for teachers rated Effective or higher (78 percent) were much higher than for those rated below Effective (48 percent). The most common reasons teachers cited for deciding to leave their schools included dissatisfaction with school culture or leadership as well as personal reasons; the least frequent reason listed was compensation.

Improvements in the quality of the teacher workforce require coherent efforts to prepare, recruit, select, develop, and retain teachers. Government agencies, LEAs, schools, EPPs, and other support organizations need to take a coordinated approach to developing an effective, well-trained, and well-supported teaching force that reflects the diversity of the students they serve. The data included in this report can support conversations about the talent priorities in the city.

# Introduction

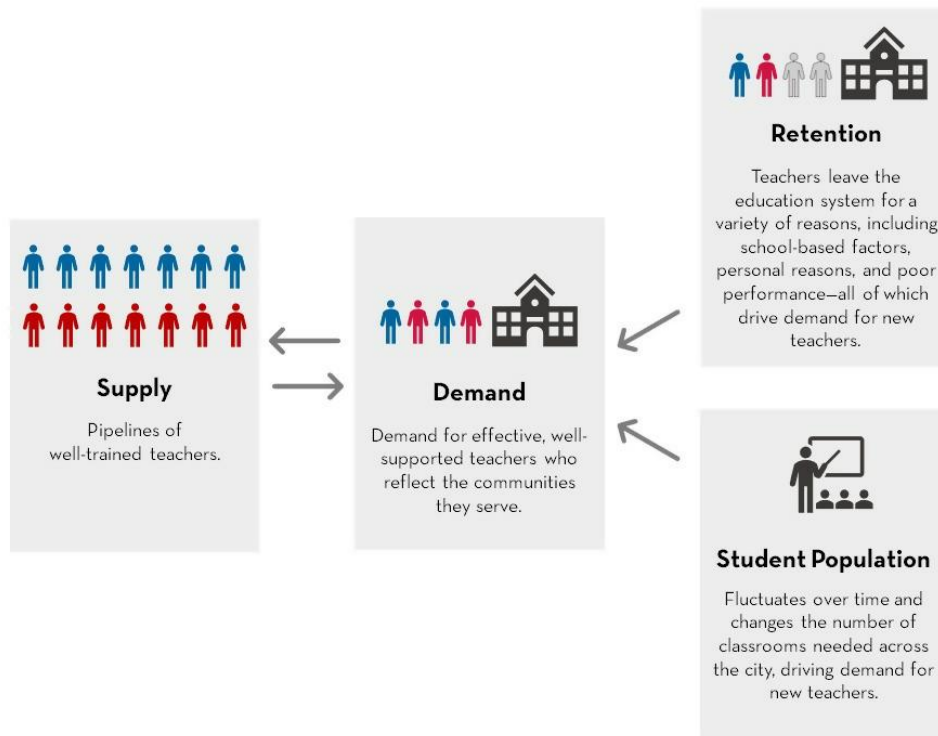
The Office of the State Superintendent of Education (OSSE) is committed to collecting and sharing actionable data to inform policy decisions, empower partners, and communicate transparently with the public.<sup>i</sup> This priority is what drove OSSE to launch the DC School Report Card and produce data reports related to student attendance, student discipline, and student health and well-being.<sup>ii</sup>

This report is part of OSSE's effort to expand the release of actionable data regarding teacher talent. The teacher workforce is DC schools' most important resource, as research has shown that teacher quality is the most influential school-level contributor to student achievement.<sup>iii</sup> DC policy authorizes the autonomy of each LEA to make personnel decisions. Each LEA has its own system of collecting data on its teachers, limiting the availability of comparable data about the city's educators. Over the past several years, OSSE has been working in close collaboration with LEAs to collect high-quality data from across the city, and OSSE now has comparable talent data across a majority of LEAs.

This report shares data on DC's teacher workforce so that organizations across the city can prioritize issues, policies, and supports that will help schools recruit, develop, and retain effective teachers.<sup>iv</sup> The topics and data points in this report were derived in the fall of 2018 directly from stakeholder engagement and input.

The first section of the report describes the current state of the teaching workforce with a focus on characteristics that are related to teacher effectiveness and student achievement: evaluation results, experience, and teacher diversity.<sup>v</sup>

The remainder of the report describes workforce trends that affect whether DC schools are staffed with the teachers they need. The graphic below represents an overview of the interconnected forces impacting teacher talent: Demand for teachers is driven by the needs of the student population and teacher retention; the supply of available teachers to fill that demand is made up of both experienced teachers moving between schools and new teachers entering the workforce. Coherent improvement strategies likely involve efforts across this talent continuum—from teacher preparation to teacher retention.



This report is comprised of three sections related to the city’s talent needs:

- **Educator Snapshot** describes who is teaching in DC’s schools. It compares teacher characteristics such as experience levels and race/ethnicity to the characteristics of the students they serve.
- **Teacher Supply and Demand** explains how many teachers are needed, how well LEAs are currently able to fill vacancies, and how those teachers are supplied to DC schools.
- **Drivers of Demand** explores two drivers of demand:
  - *Student Population Growth*: Demonstrates future enrollment shifts and how they influence the demand for teachers.
  - *Retention*: Explores retention trends, explains how mobility influences demand, and describes which teachers leave and why.

The report weaves in themes of diversity and equity throughout. It is imperative that all students have access to effective, diverse teachers who support them so that they can reach their potential, and this report explores whether talent resources are equitably distributed across the city. Specifically, there is a focus on the talent assets and challenges within and across wards. The report also examines whether the diversity of educators reflects the diversity of the students and families in the District, an inquiry motivated by research findings that suggest the importance of teacher racial diversity for all students, especially for students of color (who comprise the majority of students in the District).<sup>vi</sup>



We hope the data in this report will support the citywide conversation about talent priorities in DC and inspire collaborative efforts to address them. Data-informed talent priorities can support city agencies, organizations, and individuals in their efforts to do the following:

- Invest strategically in talent efforts and initiatives;
- Provide coherent support to LEAs and schools that will help them attract, develop, and retain effective educators; and
- Monitor priorities over time to understand if workforce trends are improving.

## About the Data

The data utilized in this report were collected from 50 of the 68 total LEAs in the city in the fall of 2018. These 50 LEAs included 91 percent of all schools in the District, and these schools served 89 percent of all students during the 2018-19 school year. Most of the data in this report reflects data submitted in fall 2018 and teachers employed as of Oct. 5, 2018, unless otherwise noted.<sup>vii</sup>

Data trends in this report are, for the most part, displayed in aggregate, meaning they are not displayed for individual LEAs or schools, because the purpose of the report is to provide a macro-level view of DC's teacher labor force in order to inform statewide practices and policies. However, data are delineated by key characteristics such as ward.<sup>viii</sup>

Appendix A contains information about data sources used in this report as well as technical information about the data.

## Educator Snapshot

Figure 1 provides an overview of the teacher workforce in DC, including their characteristics and the schools where they teach.

Figure 1. 2018-19 school year educator landscape

# DC EDUCATOR LANDSCAPE

## 6,796 teachers

93,016 students

229 schools

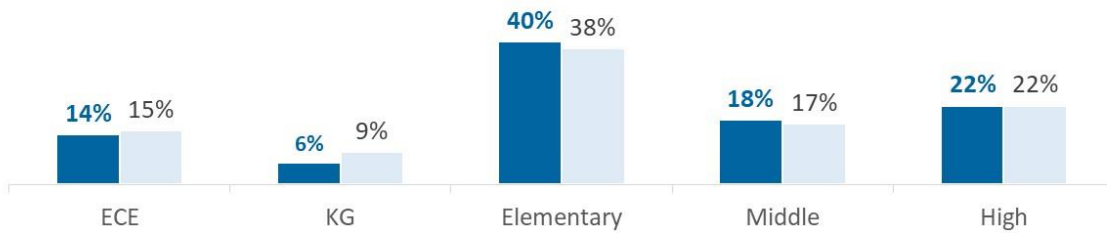
8 wards

### TEACHERS & STUDENTS

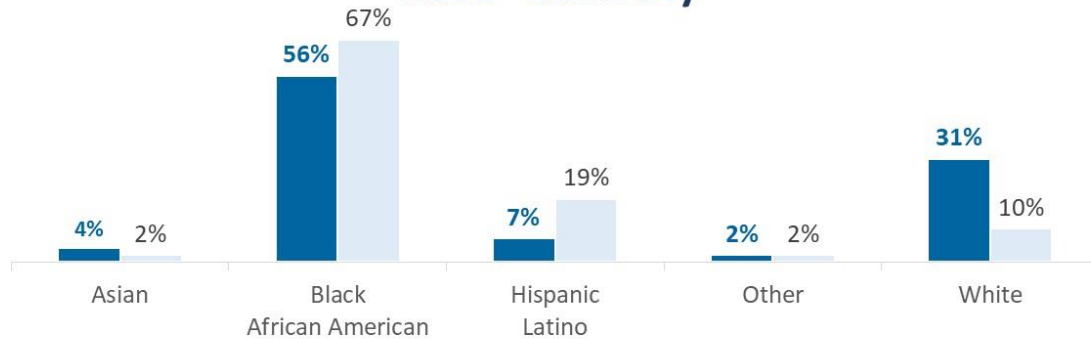
2018-19: teacher data  
2017-18: student data\*

Teachers Students

#### Grades



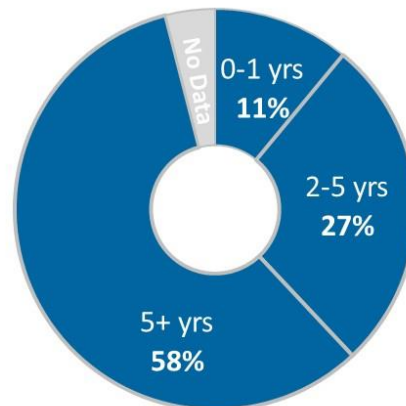
#### Race - Ethnicity



#### Teaching Positions & Subjects

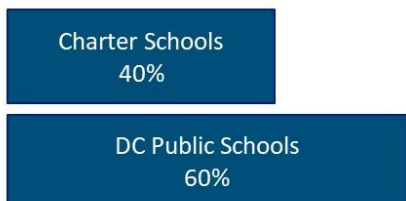
- 26% Elementary Education
- 17% Special Education
- 12% Early Childhood Education
- 7% English
- 7% Math
- 31% Other Positions & Subjects

#### Teaching Experience



This difference in years is due to data availability at the time of reporting. See Appendix A for data source details.

## Teachers' School Types



## Wards



Source: DC Office of Planning  
<https://planning.dc.gov/page/neighborhood-planning-01>

Ward	Teachers	Students
1	12%	12%
2	4%	4%
3	8%	8%
4	15%	15%
5	16%	17%
6	14%	12%
7	14%	13%
8	18%	18%

## Ward Characteristics

2 Wards with the most ...

	Teachers with 0-1 years of experience	At Risk* at RISK	English Learners Learners	with Disabilities WITH DISABILITIES
Ward 1	9%	31%	28%	11%
Ward 2	7%	30%	9%	10%
Ward 3	7%	10%	10%	10%
Ward 4	10%	41%	29%	15%
Ward 5	12%	43%	8%	16%
Ward 6	9%	45%	4%	18%
Ward 7	11%	65%	2%	22%
Ward 8	15%	70%	0%	17%

\*Students who are at risk are those who qualify for Temporary Assistance for Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP), have been identified as homeless during the academic year, who under the care of the Child and Family Services Agency (CFSA or "foster care"), or who are high school students at least one year older than the expected age for their grade.

## Student and Teacher Diversity

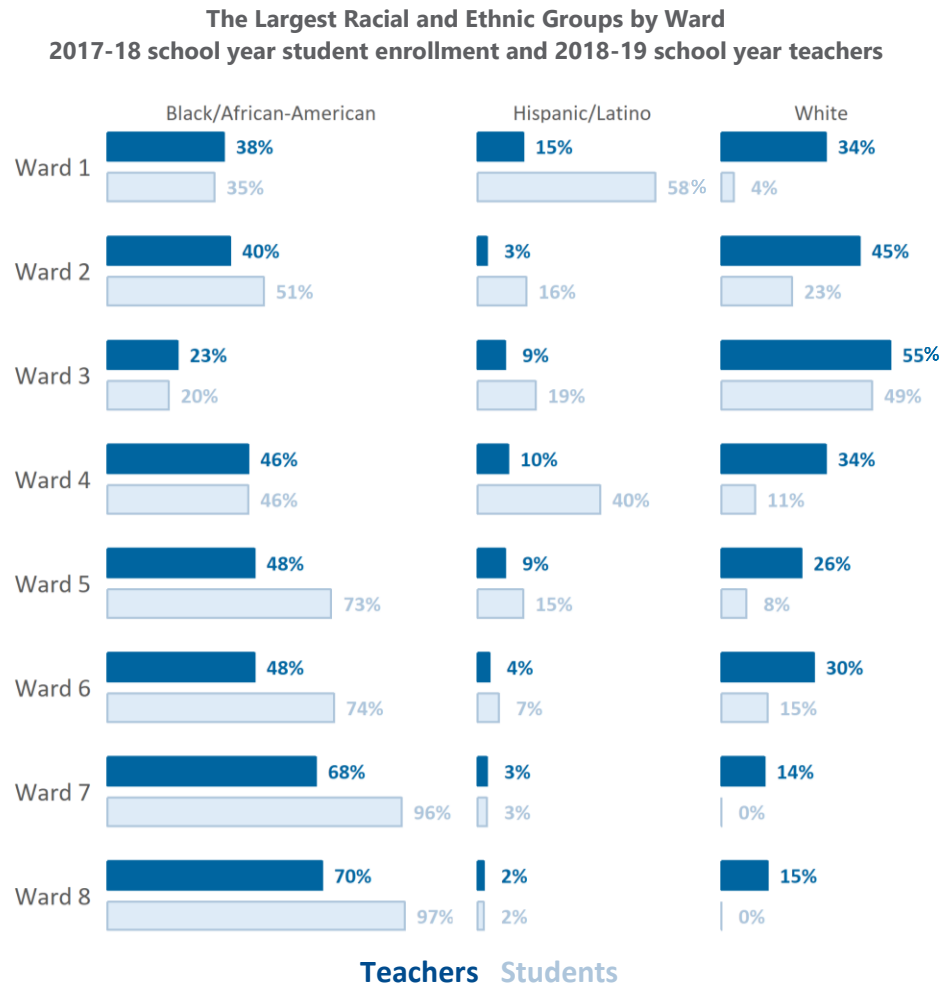
The goal of teacher talent policies is to build a diverse workforce of effective teachers in DC. A growing body of research supports the importance of a diverse teaching workforce for all students, but especially for students of color. It is important to expose students to diversity across a variety of characteristics (race, gender, language of origin, religion, socioeconomic status, etc.), since teachers often serve as role models who exemplify professional and academic success across different identities. Research has focused in particular on the importance of racial diversity, finding that teachers of color have, on average, higher expectations of students of color; these higher expectations can lead to a lower likelihood of suspension and dropout for Black/African American and Hispanic/Latino students.<sup>ix</sup> In addition to a variety of assets that teachers of color bring to the classroom, research also suggests that they are more likely than white teachers to teach in high-poverty schools, where strong talent is most needed.<sup>x</sup>

Figure 1 displays the racial demographics of the teacher workforce compared to the student population. While the teacher population is not perfectly reflective of the student population, DC employs a much greater percentage of teachers of color (62 percent) than other urban school systems across the country where 29 percent are teachers of color.<sup>xi</sup> The percentage of teachers who identify as Black/African American in DC (56 percent) is much higher than the percentage who identify as Black/African American nationally (7 percent), while the percentage of teachers who identify as Hispanic/Latino in DC (7 percent) is similar to the national benchmark (9 percent).<sup>xii</sup>

Still, there are opportunities for the teacher workforce in DC to become more reflective of the student population. For example, 56 percent of teachers identify as Black/African American compared to 67 percent of students who do so. Similarly, only 7 percent of teachers are Hispanic/Latino, compared to 19 percent of students. This difference is pronounced in specific wards: In wards 1 and 4, 15 percent and 10 percent of teachers are Hispanic/Latino, respectively, but 58 percent and 40 percent of students are Hispanic/Latino (See Figure 2). Additionally, citywide, only 16 percent of teachers are males of color, while roughly 45 percent of students are. (See Appendix B for a breakdown of the teacher population by race and gender.)

The racial demographics of teachers are similar in DCPS and charter LEAs, and there are no major differences by grade span. (See Appendix B for tables showing teacher race data by sector and grade span.)

Figure 2. The largest racial and ethnic groups by ward, 2017-18 school year student enrollment and 2018-19 school year teachers



Note: Statistics of all racial and ethnic groups by ward can be found in Appendix B.

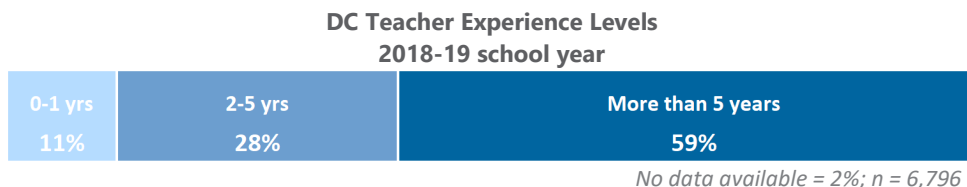
DC also serves populations of students who require specialized staff: 11 percent of students are English learners (ELs), and 16 percent are classified as students with disabilities (SWDs). These percentages are roughly on par with national figures: In 2016, 10 percent of students nationally were ELs, and 13 percent of students were classified as SWDs.<sup>xiii</sup>

### Teacher Experience

Research suggests that teachers improve the most in their first year of teaching and then reach a plateau after three to five years.<sup>xiv</sup> In other words, more experienced teachers tend to be more effective than new teachers, but there are not major student academic performance returns for additional experience beyond five years. A balanced workforce would ensure that students are not taught by new teachers year after year, but that some new teachers are entering the pipeline to replenish those who leave or retire. Figure 3 displays teacher experience in numbers of years for DC, focusing on novice (zero to one year of experience), early career (two to five years of experience), and experienced teachers (six or more years of experience). National teacher experience data is reported in different categories, but

the data suggest that DC may have a slightly less experienced teacher workforce than average. Nationally, 10 percent of teachers had fewer than three years of teaching experience in the 2015-16 school year, and 61 percent of teachers had 10 or more years of experience.<sup>xv</sup>

Figure 3. Teacher experience levels, 2018-19 school year



Experience levels differ across wards. Ward 8 has the highest percentage of novice teachers (15 percent), while wards 2 and 3 have the lowest percentage of novice teachers (both 7 percent). (See Appendix B for a table of experience by ward.)

Teachers in DC Public Schools (DCPS) have more experience, on average, than teachers in charter LEAs: 68 percent of DCPS teachers have six or more years of experience, compared to 42 percent of teachers in the charter sector. (See Appendix B for a table of experience by sector.)

### Teacher Effectiveness

Research has shown that when it comes to raising student achievement, no in-school factor matters more than the quality of the teacher leading the class.<sup>xvii</sup> Figure 4 shows teacher evaluation ratings across the city, based on the evaluation systems that LEAs have developed (See Sidebar: Considerations in Measuring Teacher Effectiveness). When submitting staff roster data, LEAs were directed to enter their teacher evaluation ratings using the following four categories: “Highly Effective,” “Effective,” “Minimally Effective,” and “Ineffective.”<sup>xviii</sup>

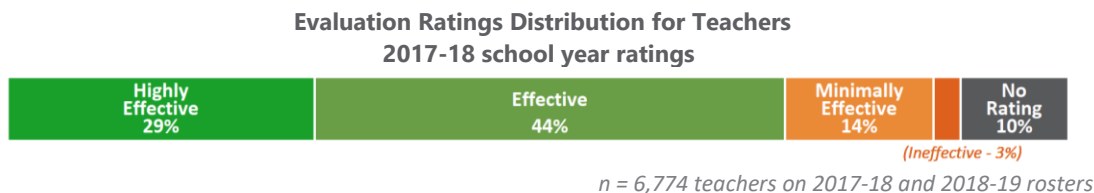
### Considerations in Measuring Teacher Effectiveness

A decade of research suggests that the best way to measure teacher quality is through evaluation systems that include multiple measures such as observations, student surveys, and student growth.<sup>xvi</sup> LEAs across the city have adopted multi-measure evaluation systems with the goal of developing teachers’ instructional skills and competencies, and most DC LEAs have teacher evaluation systems that do meaningfully differentiate teacher performance. However, LEAs in DC have the flexibility to select measures and evaluation tools that are aligned to their local visions and contexts. As a result, an “Effective” rating at one LEA does not have the same meaning as it does at other LEAs.

This report cites the percentage of teachers across all LEAs receiving each evaluation rating. It also examines the effectiveness of new hires and whether teachers with higher evaluation ratings are leaving their schools at similar rates to those with lower evaluation ratings.

The included evaluation data illustrate teacher performance trends at a high-level and reflect local interpretations of teacher performance, as opposed to a consistent assessment of teacher quality across the city.

Figure 4. Evaluation ratings distribution for teachers, 2017-18 school year ratings



## Teacher Supply and Demand

The following section focuses on the demand for teachers—how many positions need to be filled each year across the city—and the teacher supply—how many teachers are available to fill open positions and the programs that prepare teachers for work in the classroom.

Together, these workforce trends determine whether each classroom is staffed with a teacher on the first day of school. LEAs dedicate considerable time and resources each year to recruiting and hiring new staff. More importantly, vacancies that remain unfilled at the start of the school year negatively impact students, as research suggests that these positions are often filled with long-term substitutes or underprepared late hires.<sup>xix</sup>

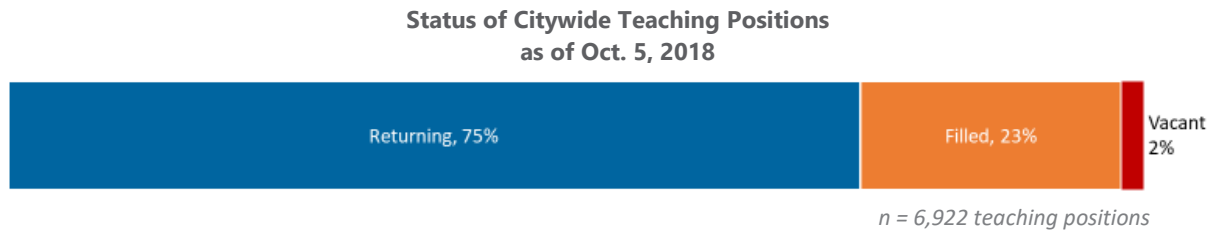
### Demand Across the City

The data in this section show teacher demand across the city, broken down by subject area and ward, to examine the extent to which schools are successful at filling open positions each year. Open positions that were both filled and unfilled by the Oct. 5 enrollment audit date are considered in this analysis because they represent the total number of positions that needed to be filled between the end of the 2017-18 school year and the beginning of the 2018-19 school year. The data represent a snapshot of the status of teaching positions on Oct. 5; there were likely positions filled in the six weeks after the start of the school year that are counted here as filled vacancies.

Demand in this report is defined as any teaching position that needed to be filled between spring of the 2017-18 school year and the fall of the 2018-19 school year.<sup>xx</sup> The following terminology is used in this section:

- **Returning teachers** (blue): of total demand, these positions that were filled with teachers who taught at the same school in the prior year.
- **Total open positions**: the remaining open teaching positions that LEAs needed to fill between the end of the 2017-18 school year and the beginning of the 2018-19 school year, regardless of whether they ultimately filled them. Open positions are split into two categories:
  - o **Filled positions** (orange): This is the subset of open positions that were filled by new hires or within-LEA transfers between the end of the 2017-18 school year and Oct. 5, 2018.
  - o **Vacant Positions** (red): This is the subset of open positions that were NOT filled on Oct. 5, 2018.

Figure 5. Status of citywide teaching positions as of Oct. 5, 2018



Out of 6,922 teaching positions, about 25 percent were open between the end of the 2017-18 school year and the fall of the 2018-19 school year. However, by Oct. 5, only 2 percent ( $n = 126$ ) of positions remained vacant, suggesting that there were roughly enough teachers available in the region to fill most positions. Even so, about one in three schools (36 percent,  $n = 79$ ) and one in three LEAs (36 percent,  $n = 18$ ) had at least one vacant position on Oct. 5. Vacancies on Oct. 5 may have resulted from challenges in staffing specific roles, early-year resignations, or schools adding new positions after the start of the school year.

#### Demand by Subject Area

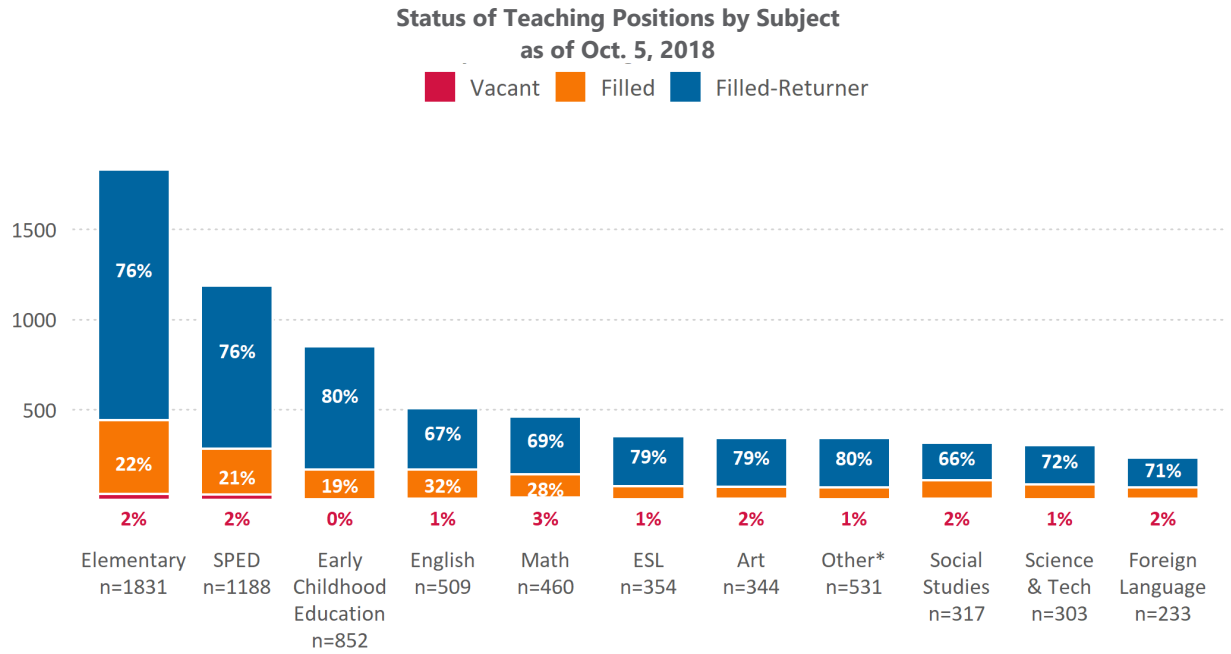
While most positions were filled by Oct. 5, there were more open positions in some subject areas. Figure 6 shows vacant and filled positions by subject area as a percent of total positions, and Figure 7 shows the number of total open positions and vacant positions in each subject.

In DC, the two subject areas with the highest demand for teachers in the 2018-19 school year were Elementary and Special Education, meaning that these two subject areas had the largest quantity of positions that needed to be filled. These two subject areas also made up the largest segment of the teacher workforce, in part because there are more elementary schools than middle or high schools, and positions in secondary schools are departmentalized by content area, whereas elementary positions are typically not. For the 2018-19 school year, 24 percent of all elementary positions and 22 percent of all special education positions had to be filled due to teachers leaving their school or new positions being created. Overall, 25 schools (11 percent of all schools) had at least one elementary vacancy and 23 schools (10 percent of all schools) had at least one special education vacancy on Oct. 5.

These trends were consistent with historical analyses of DC teacher shortages. The most frequently reported shortage areas over the past 20 years, from 1998-2018, were Special Education, Mathematics, Elementary, and English Language Arts.<sup>xxi</sup>

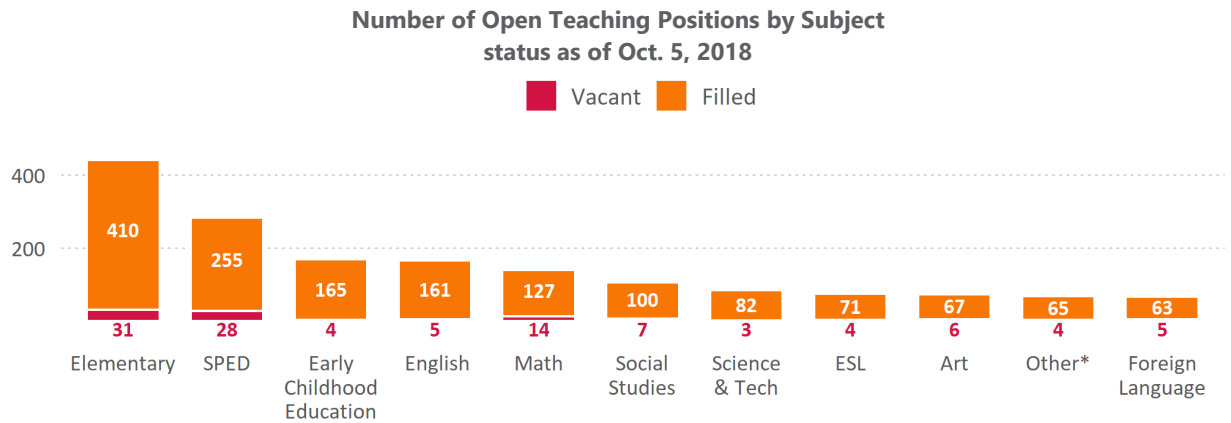


Figure 6. Status of teaching positions by subject as of Oct. 5, 2018



\*See Appendix A for subject areas included in 'Other' and definitions of each subject group.

Figure 7. Number of open teaching positions that needed to be filled for the 2018-19 school year



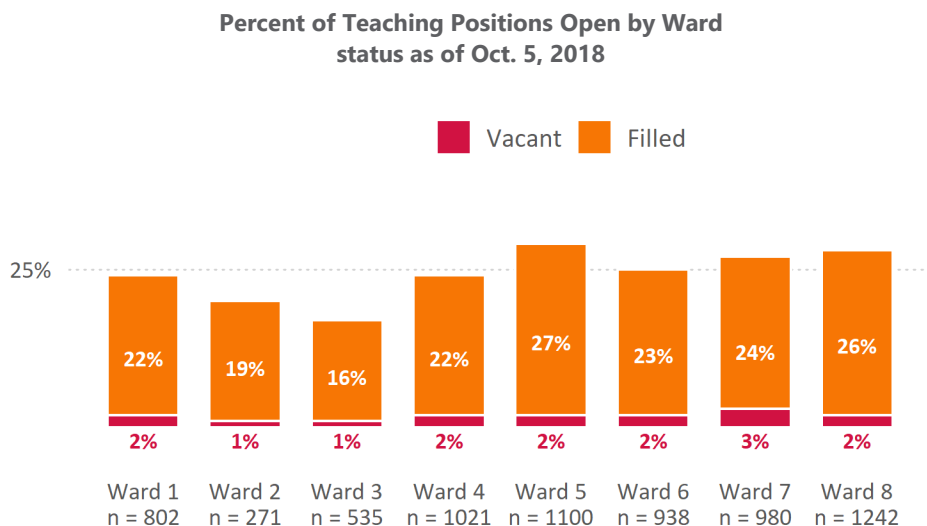
\*See Appendix A for subject areas included in 'Other' and definitions of each subject group.

### Geographic Area

An examination of demand by ward offers insight into the places where the most hiring resources are needed and/or the areas that are most impacted by unfilled vacancies. Demand varied by ward in the 2018-19 school year, and wards with the smallest at-risk populations had fewer open positions than wards with the largest at-risk populations. (See Figure 1 for the percent of at-risk students by Ward.) Specifically, Ward 3 had the smallest percentage of total open positions (17 percent), while more than 25 percent of positions were open in wards 5, 7, and 8. Ward 7 had the most unfilled vacancies, with 3 percent (n= 28) of all Ward 7 positions vacant as of Oct. 5. Within Ward 7, Special Education was the

subject area of greatest need with a 5 percent vacancy rate representing 11 vacant Special Education positions. (See Appendix B for a table of filled and vacant positions by ward and subject.)

Figure 8. Percent of teaching positions open by ward, 2018-19 school year



## Teacher Supply

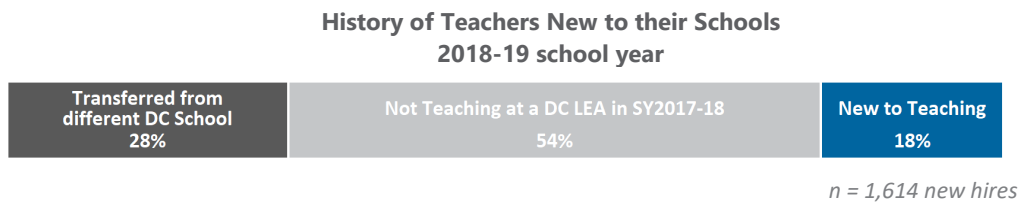
While most DC schools were able to fill most positions prior to Oct. 5, filling positions is only half of the equation: It is just as critical that positions are filled with diverse, effective teachers who have the content knowledge necessary to be successful in the subject they are teaching.

This section starts with an overview of the various sources of supply for new hires in DC and then focuses specifically on the supply of teachers coming from DC-area EPPs. Because only a portion of new hires come directly from DC preparation programs, the report then describes all new hires in the 2018-19 school year, focusing on characteristics that matter for student success, such as their experience levels, racial diversity, and effectiveness. New hires in this section refers to teachers who were new to their schools in the 2018-19 school year and includes teachers who transferred between schools at their LEA.

### Sources of Teacher Supply

More than half (54 percent) of new hires for the 2018-19 school year had some teaching experience but were not teaching at a DC LEA in the 2017-18 school year, meaning they either came from a private school, a school outside of DC, or were previously on leave from teaching. Another 28 percent of new hires were transfers—22 percent transferred schools within their LEA, and 6 percent transferred between DC LEAs. Only 18 percent of teachers hired during the 2018-19 school year were new to teaching, having recently completed an EPP or other formal education (within or outside of DC) or switched careers.

Figure 9. History of teachers new to their schools in the 2018-19 school year



### DC Educator Preparation Providers (EPPs)

Most new hires entered their positions with some previous teaching experience and did not come directly from EPPs. However, about one in five new hires in the 2018-19 school year were new to the profession, meaning that EPPs—within and outside of DC—play an important role in supporting staffing of DC’s schools. The data in this section will describe the supply of teachers from DC EPPs.<sup>xxii</sup>

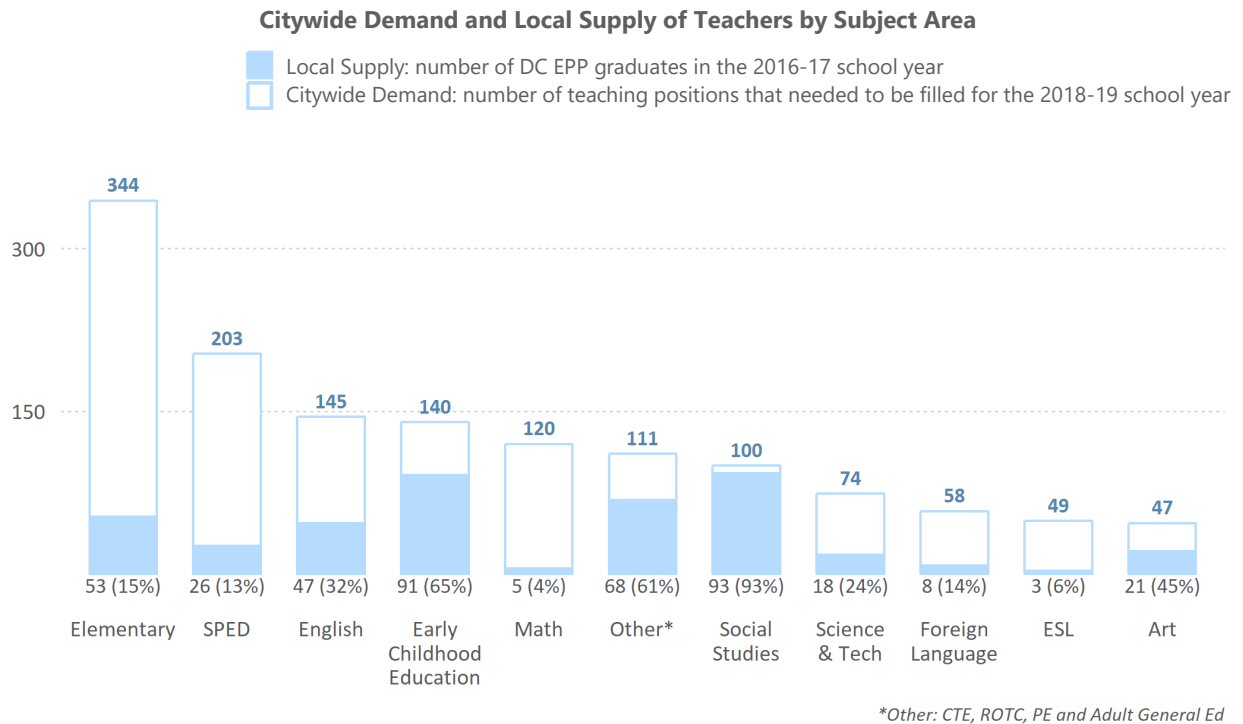
As of 2017, there were 13 EPPs in DC. (See Appendix A for a list of programs.) In the 2016-17 school year, EPPs in DC produced a total of 433 graduates which would be enough teachers to fill about 31 percent of all open 2018-19 school year positions. Only a portion of local EPP completers go on to work in DC schools, and EPPs outside of DC are also a source of new teachers. Still, examining the make-up of DC EPP graduates and enrollees by subject and race can help describe the available supply of new teachers in the city.

### Educator Preparation Program Completers by Subject

Figure 10 compares the number of EPP completers in the 2016-17 school year to the number of open teaching positions in DC schools in the 2018-19 school year in each subject area.<sup>xxiii</sup> EPP graduates do not fill most open positions; as depicted in Figure 9, most positions are filled by experienced teachers. However, comparing open positions to EPP completers broadly demonstrates how the supply of local graduates compares to the demands of DC LEAs. EPPs are under-producing graduates in a few high-demand subjects (e.g., math) while over-producing completers in a few low-demand subjects (e.g., social studies).

In the previous section, Elementary and Special Education were identified as the two highest demand subjects. EPPs produced 53 elementary completers in the 2016-17 school year, representing 15 percent of open 2018-19 school year positions. They also produced 26 special education completers in the 2016-17 school year, representing 13 percent of open 2018-19 school year positions. Meanwhile, EPPs produced 93 social studies completers, representing about 93 of 2018-19 school year open social studies positions.

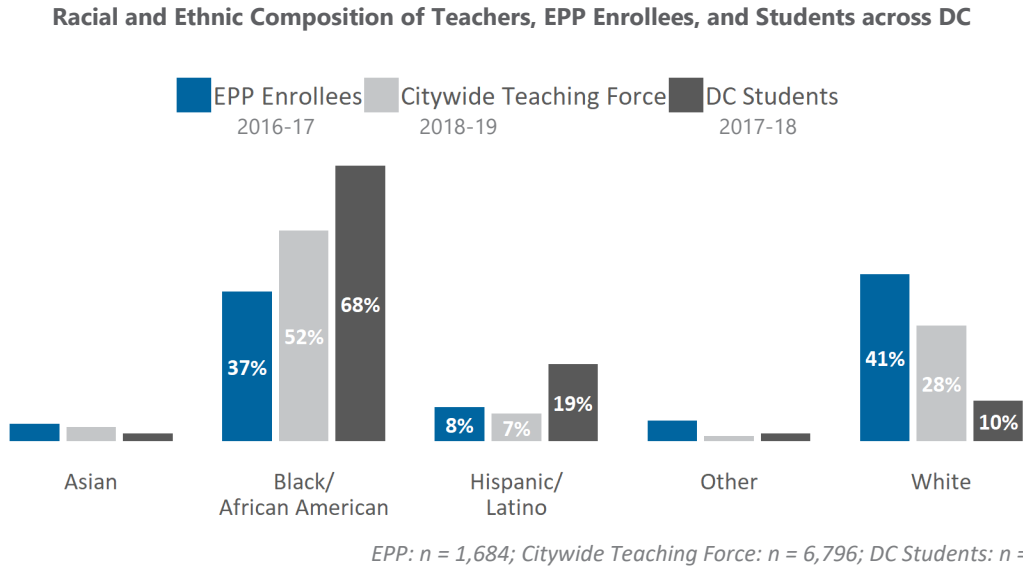
Figure 10. Citywide demand and local supply of teachers by subject area



### Educator Preparation Program Enrollees by Race

The racial demographics of individuals who were enrolled in DC EPPs in the 2016-17 school year provides a snapshot of the diversity of the local supply of new teachers. DC EPP enrollees were less racially diverse than the current teacher workforce. Specifically, 41 percent of EPP enrollees were White, as compared to 28 percent of current teachers and 10 percent of current students. Only 8 percent of EPP enrollees were Hispanic/Latino, which would not help to alleviate the shortage of Hispanic/Latino teachers in the city (only 7 percent of current teachers were Hispanic/Latino, compared to 19 percent of students). The racial demographics of enrollees in Alternative Preparation Programs were similar to enrollees in Traditional Preparation Programs in DC.

Figure 11. Racial and ethnic composition of teachers, EPP enrollee, and students across DC



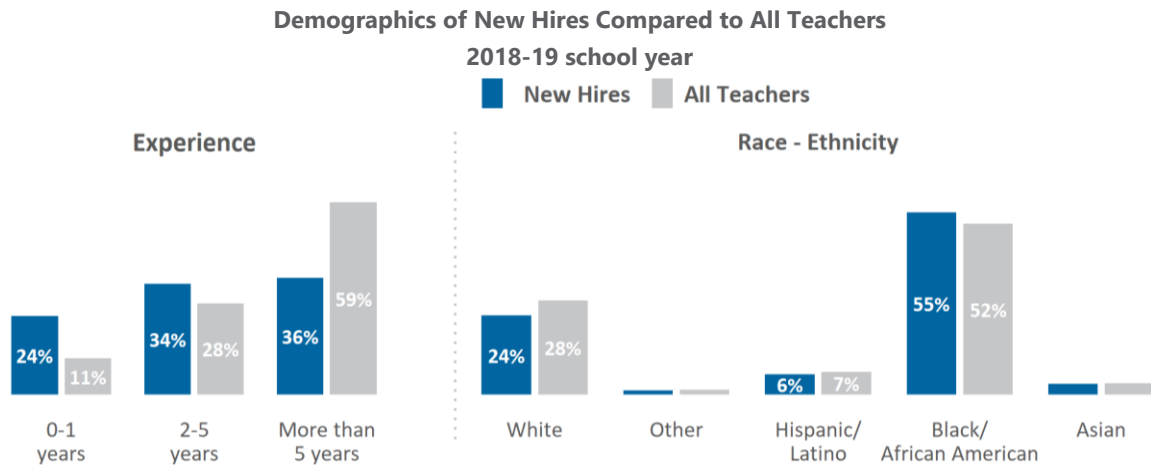
### Experience and Diversity of New Hires

Most new hires in DC are not coming directly from EPPs but are bringing some teaching experience with them. This reality matters because new teachers tend to face a learning curve during their first few years in the classroom.<sup>xxiv</sup> This next section explores characteristics of *all* new hires who are new to their school, including those who transferred from other schools or LEAs.

In the 2018-19 school year, LEAs were more likely to hire experienced teachers (with six or more years of experience) than novice teachers (with zero to one year of experience), a finding that is consistent with the source of talent as depicted in Figure 9.<sup>xxv</sup>

The racial diversity of new hires roughly mirrored the racial diversity of the broader teacher workforce. Specifically, 24 percent of new teachers were White (compared to 28 percent of all teachers), 55 percent were Black/African American (compared to 52 percent of all teachers), and 6 percent were Hispanic/Latino (compared to 7 percent of all teachers). As a result, new hires reinforced existing diversity trends within the District

Figure 12. New teacher demographics, 2018-19 school year



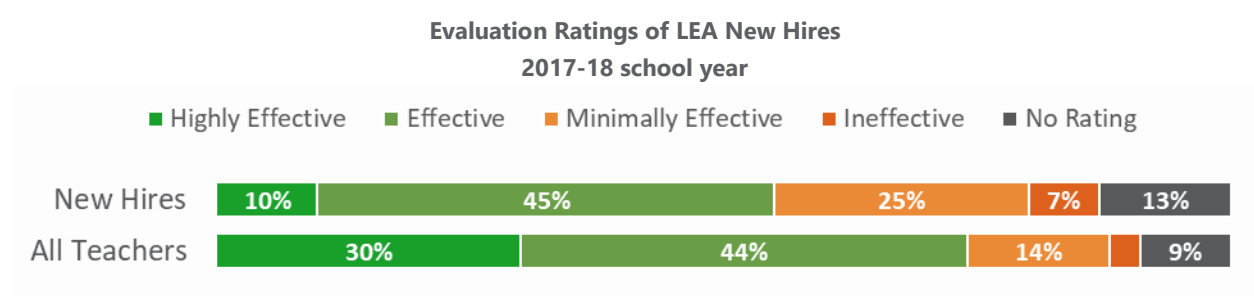
New Hires: n = 1,265 ; All Teachers n = 6,796  
 \*Other: "American Indian/Alaskan Native," "Other," "Pacific Islander/Native Hawaiian," "Two Or More Races"  
 Note: Teachers missing the displayed demographic are not shown, but are included in the denominator

### Effectiveness of New Hires

On average, teachers who were hired into open positions in the 2017-18 school year were less likely to receive the highest evaluation rating and more likely to receive a rating below Effective, compared to the larger teacher population.<sup>xvii</sup>

There are a few possible explanations for the differences in effectiveness between new hires and all teachers. First, all new hires face a learning curve when they begin working at a school, and they need time to internalize LEA and school-specific instructional expectations. Additionally, newly hired teachers are less experienced, on average, than returning teachers, and teachers tend to improve as they gain more experience, particularly in the first few years.

Figure 13. Evaluation ratings of teachers newly hired to LEAs in the 2017-18 school year



New Hires: n = 1,265; All Teachers n = 6,796

# Drivers of Demand

Open teaching positions can result either from growth in the size of the student population, or from attrition of prior-year staff, both of which will require LEAs to hire more teachers. In this section, we will examine each of those drivers and the way that they affect teacher demand.

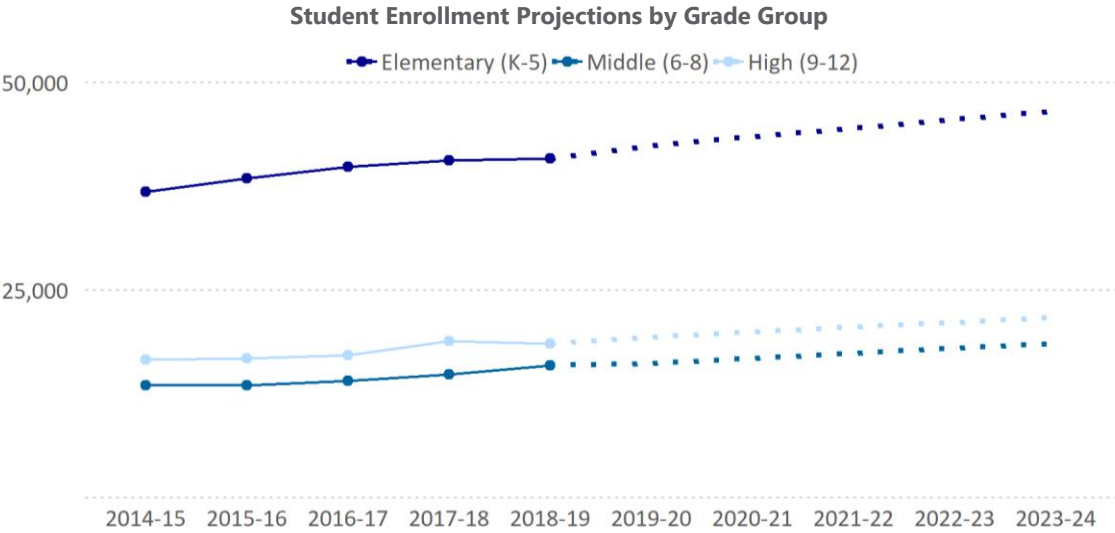
## Growth

Figure 14 and Figure 15 focus on growth in student enrollment, extrapolating from trends and thus offering future projections that can forecast how demand for teachers might change.<sup>xxvii</sup>

Between the 2014-15 school year and the 2018-19 school year, enrollment in public schools in DC grew by about 3 percent annually. If the population continues to grow at the same pace, the city will serve about 11,545 more students by 2023-24 than it did in the 2018-19 school year.

Over the past four years, from the 2015-16 school year to the 2018-19 school year, the total number of teaching positions in the city grew by 386 positions, averaging 2 percent growth annually and 5 percent growth over four years.<sup>xxviii</sup> If student enrollment continues on the same linear trend and the student/teacher ratio remains constant, the number of teaching positions in the city is projected to grow by 673 positions over the next four years, from the 2018-19 school year to the 2022-23 school year.

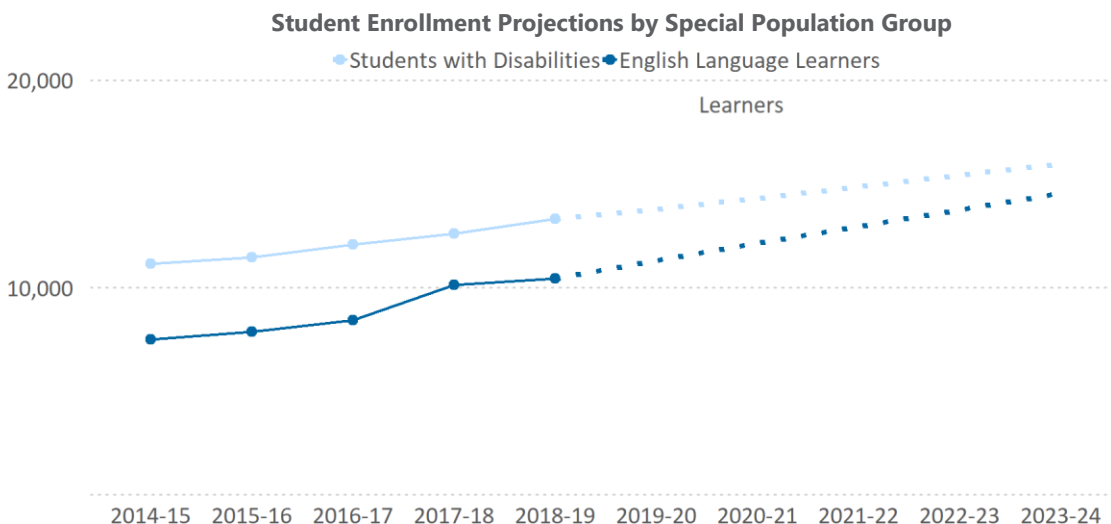
Figure 14. Student enrollment projections by grade group



Enrollment has increased even more substantially among SWDs and ELs. Between the 2014-15 school year and the 2018-19 school year, the number of SWDs in the city increased by 5 percent annually, and if this group continues to grow at this rate, an additional 2,642 students will have this classification by the 2023-24 school year. The number of students who are ELs has increased by 9 percent annually, with a projected addition of 4,130 students by the 2023-24 school year. These data have implications regarding the need for teachers over the next five years; it is likely that there will be an increased need

for teachers who are qualified and prepared to teach students with disabilities and students who are identified as ELs.

Figure 15. Student enrollment projections by special population group



## Retention

The other major driver of teacher demand (outside of growth in student population) is teacher attrition: teachers leaving their schools, LEAs, or the profession altogether. Teacher retention, particularly retention of effective teachers, drives down the overall demand for teachers and reduces the strain on schools and LEAs to fill positions each year. On the other hand, some attrition may be beneficial, as is the case when consistently ineffective teachers who have been unable to improve their practice leave. For example, an external research study of attrition in DCPS found that, on average, generally low-performing leavers were replaced with teachers who were more effective than their predecessors.<sup>xxix</sup>

## Overall Retention

For this report, teacher retention was calculated by matching teachers in 2017-18 school year staff rosters to teachers on 2018-19 school year rosters.<sup>xxx</sup> Teachers are considered retained if they remain on the same school roster from fall of the 2017-18 school year to fall of the 2018-19 school year.<sup>xxxi</sup>

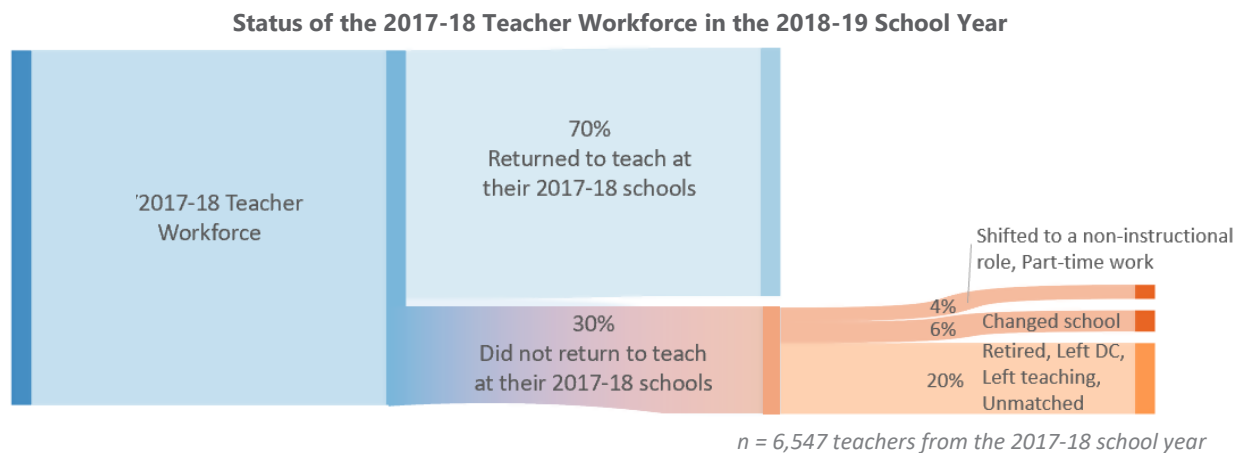
Overall, schools retained 70 percent of their teachers between the 2017-18 school year and the 2018-19 school year. The other 30 percent were teachers who left their schools, and they fell into one of three groups:

- Six percent of teachers transferred schools, either within the same LEA (5 percent) or between LEAs (one percent).
- Four percent shifted into non-instructional roles (e.g., school leader, instructional coach) or transitioned to part-time teaching.



- 19 percent of teachers could not be identified in the 2018-19 school year rosters, meaning they either retired or otherwise left the teaching profession, took a teaching role outside of public and charter schools in DC, or could not be matched for any other reason.

Figure 16. Status of the 2017-18 teacher workforce in the 2018-19 school year



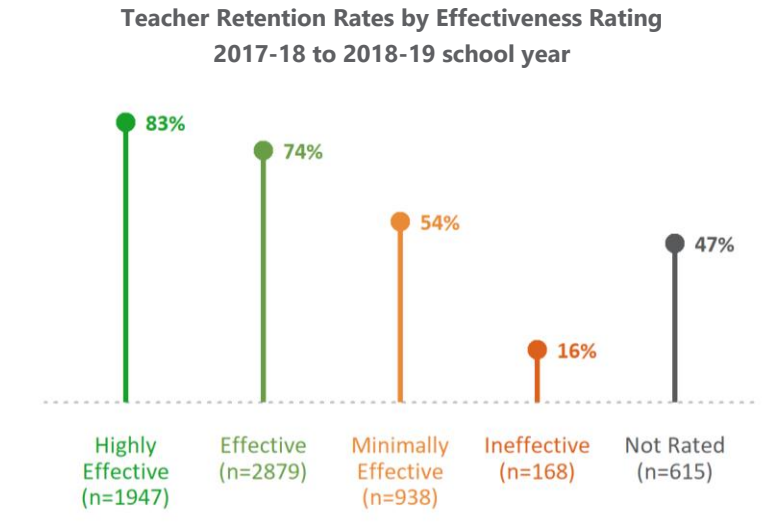
A 2018 report examining teacher turnover published by the DC State Board of Education (SBOE) found a similar teacher retention rate of 75 percent across public and charter schools in the District. The SBOE report relied on aggregate teacher retention data reported by charter LEAs, whereas the analysis in this report draws on individual teacher-level data from multiple years of LEA staff rosters ensuring that retention calculations are consistent across all schools.<sup>xxxii</sup>

While it's challenging to compare these numbers to external benchmarks due to data timing and differences in methodology, some evidence suggests that DC teacher retention rates may be slightly lower than other cities across the country. For example, a study of 16 large urban districts found that 81 percent of teachers remained at their schools after one year, compared to 70 percent in DC.<sup>xxxiii</sup> National figures suggest that about 84 percent of public school teachers remained at the same school between 2011-12 and the 2012-13 school year.<sup>xxxiv</sup>

### Differential Retention

Ideally, schools will retain their Effective teachers, while exiting consistently Ineffective teachers so that the workforce is ultimately composed largely of Effective teachers. Citywide, we see that Effective teachers are retained at considerably higher rates than Ineffective teachers.

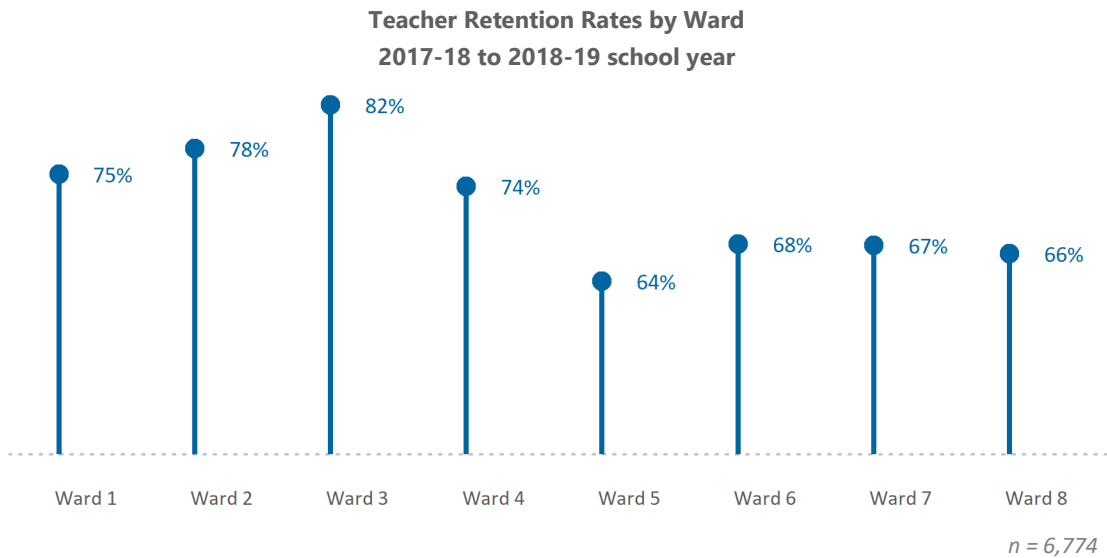
Figure 17. Teacher retention rates by effectiveness rating 2017-18 to 2018-19 school year



### School Characteristics Impacting Teacher Retention

Teacher retention rates from the 2017-18 school year to the 2018-19 school year differed by ward. Teachers in wards 1, 2, 3 and 4 were the most likely to stay at their schools, while teachers in wards 5, 6, 7 and 8 were least likely to stay.

Figure 18. Teacher retention rates by ward 2017-18 to 2018-19 school year



## Teacher Characteristics Impacting Teacher Retention

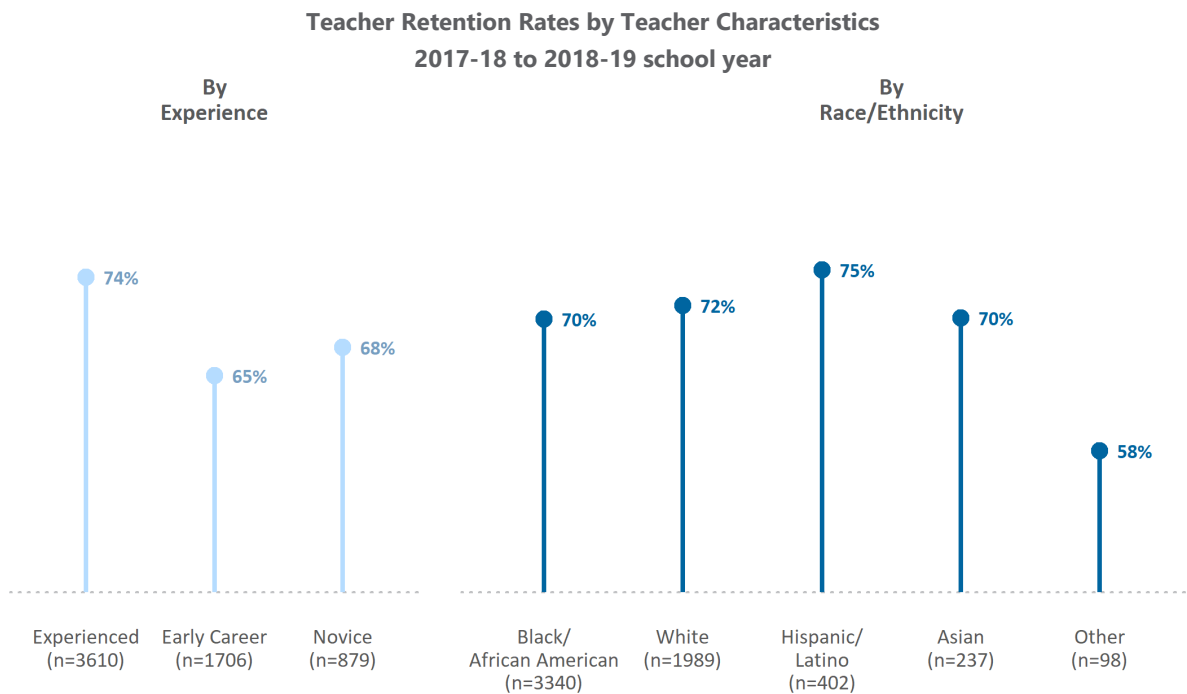
Different demographic groups of teachers are prone to leaving at different rates, as they experience their roles and schools differently. Figure 19 examines retention by teacher experience and teacher race/ethnicity.

Experienced teachers (with six or more years of experience) had slightly higher retention rates (74 percent) than less experienced teachers.

Retention rates did not differ substantially by race among the largest race groups. Specifically, 70 percent of Black/African American teachers, 72 percent of White teachers, and 75 percent of Hispanic/Latino teachers were retained in their schools. This trend suggests that retention rates are not exacerbating differences in race/ethnicity between the teacher and student population. It also differs from the national trend: nationally, White teachers have higher retention rates than teachers of color.<sup>xxxv</sup>

Subject- and grade-specific retention rates could not be calculated for this report due to changes in subject area categories in federal data collection between the 2017-18 school year and the 2018-19 school year.

Figure 19. Teacher retention rates by teacher characteristics 2017-18 to 2018-19 school year



## Reasons Teachers Leave

Teachers leave their schools for a variety reasons: Some exit based on performance, others are promoted, and others change careers or retire. Overall retention patterns suggest there is some mobility between schools as well as departures from the DC teaching workforce. This section explores the reasons teachers leave their school using their responses on the Insight Survey. (See Appendix A for a description of the Insight survey.)

As of fall 2018, 30 percent of respondents said they planned to leave their schools after the current or next school year.<sup>xxxvi</sup>

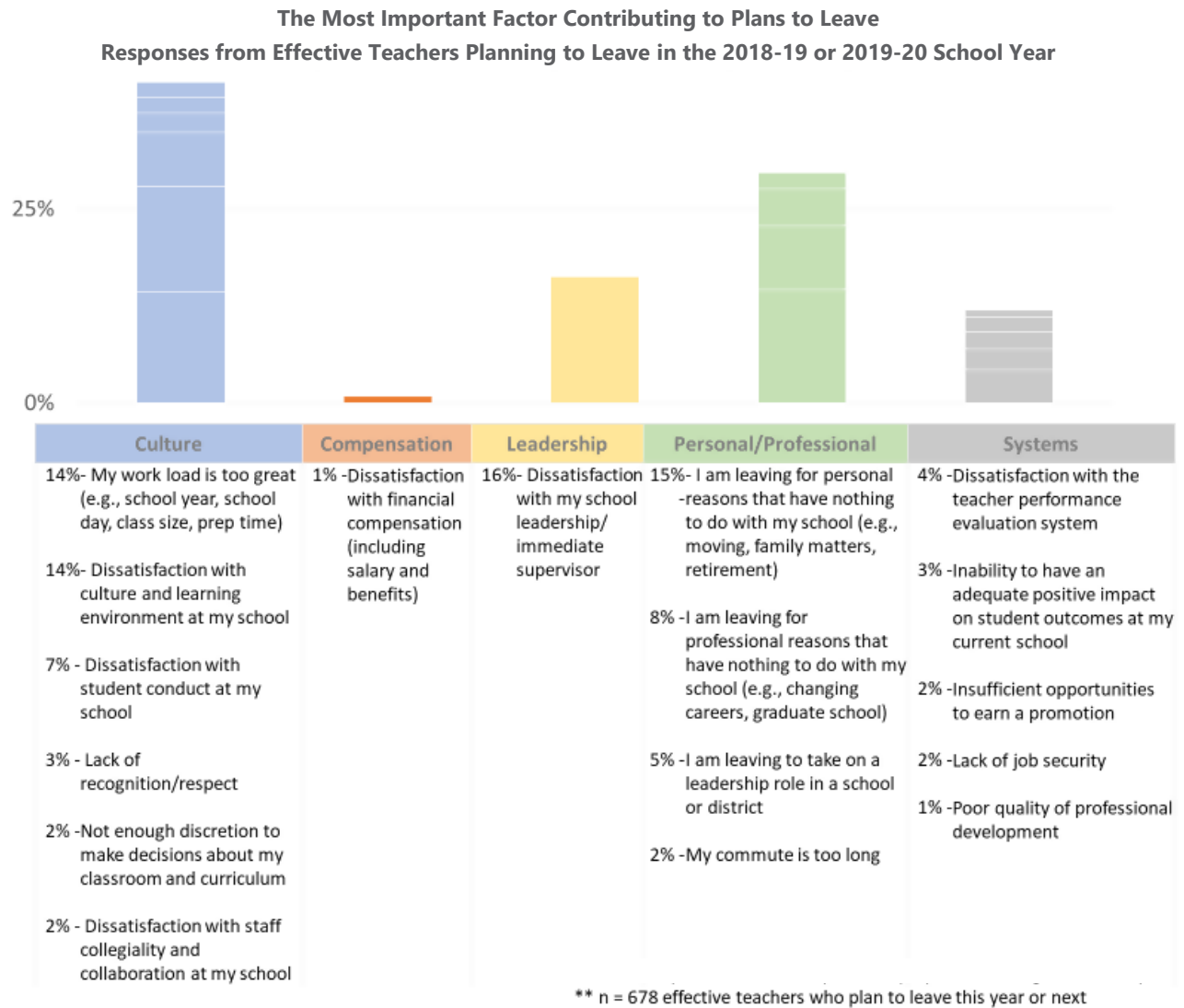
Figure 20. How long teachers planned to stay at their school, fall 2018



*n = 4,988 teacher responses to fall 2018 Insight Survey question-  
“How long do you plan to stay at your school?”*

Of Effective teachers who plan to leave teaching after the current or next school year, more than half (58 percent) said their top reason involved working conditions related to either school culture or leadership. (See Figure 21.) Only 1 percent cited compensation as their primary reason. These findings are consistent with other research, which suggests that the primary reasons teachers leave—especially from high-poverty schools—are related to working conditions.<sup>xxxvii</sup> For example, a report about retention among Highly Effective teachers in DCPS found that compensation was ranked 20<sup>th</sup> on the list of factors that high-performers cited for leaving their schools, whereas leadership, workload, and culture were ranked much higher.<sup>xxxviii</sup>

Figure 21. Reasons effective teachers plan to leave their schools, fall 2018



## Conclusion

The data in this report showcase major trends in the educator workforce in DC’s public and public charter LEAs. The data can be used to prioritize issues, policies, and supports that will help schools recruit, develop, and retain Effective teachers. It can also provide a baseline for future reporting so that the city can monitor its efforts to support LEAs in addressing talent challenges in the workforce.

# Appendix A. Methods

## Definitions and Business Rules by Report Section

### Educator Snapshot

**Teachers:** The “Federal Role” field in LEA staff roster data submissions was used to filter for teachers. Teacher roles include Teacher, Secondary; Teacher, Pre-Kindergarten; Teacher, Kindergarten; Teacher, Elementary; and Teacher, Adult. OSSE defines a teacher as: A school-based employee who instructs any core or non-core academic subject. Examples include general or special education teachers instructing students in the “core” subject areas of English language arts, math, science, and social studies, as well as non-core subjects such as arts, foreign language, and physical education. Teachers do not include student support professionals (e.g., speech therapists or social workers), counselors, librarians, coaches, principals, special education coordinators, program coordinators, deans, office staff, custodians or any other non-instructional personnel. Additionally, only staff with a total of at least .8 Full Time Equivalency (FTE) dedicated to teaching roles are included as teachers in this report.

**Teaching Subjects and Grade Bands:** The following is a list of the subject area options provided to LEAs in their 2018-19 school year roster data submissions and the categories developed for reporting purposes in this report. Grade band data was also provided by LEAs in the same groupings used in this report (Pre-K, Kindergarten, Elementary grades 1-5, Middle grades 6-8, Secondary grades 9-12). Subject areas and grade band options were changed between the 2017-18 school year and the 2018-19 school year data collections and, therefore, could not be combined to analyze teacher retention.

#### **ART**

Art: General Art  
Art: Dance  
Art: Music: Instrumental/Vocal  
Art: Performing Arts  
Art: Visual Arts

#### **ECE**

Early Childhood

#### **ELEMENTARY**

Elementary

#### **ENGLISH**

English Language Arts  
Literature  
Speech  
Reading

#### **ESL**

Bilingual Education  
English as a Second Language

#### **OTHER**

Career and Technical Education (CTE) - General  
CTE: Culinary Arts  
CTE: Computer Science  
CTE: Digital Media  
CTE: Engineering  
CTE: Entrepreneurship  
CTE: Hospitality Management  
CTE: Mass Media  
CTE: Automotive Technology  
Health and Physical Education  
Home Economics  
ROTC

#### **SCIENCE & TECH**

Science: General Science  
Science: Biology  
Science: Chemistry  
Science: Environmental Science  
Science: Earth and Space  
Science: Life Science  
Science: Physics  
Technology Education

## **FOREIGN LANGUAGE**

Foreign Languages: Spanish  
Foreign Languages: French  
Foreign Languages: Latin  
Foreign Languages: American Sign Language  
Foreign Languages: Mandarin Chinese  
Foreign Languages: Japanese  
Foreign Languages: Other

## **SOCIAL STUDIES**

Business Education  
Humanities  
Social Studies  
Geography  
Government  
Economics

## **MATH**

General Mathematics  
Mathematics: Algebra 2/Trigonometry  
Mathematics: Calculus/Pre-Calculus  
Mathematics: Geometry  
Mathematics: Algebra 1 and 2  
Mathematics: Statistics

**Teacher Effectiveness:** For the purposes of this report, performance evaluation ratings assigned to teachers by their LEA were employed as a measure of teacher effectiveness. As discussed earlier in the report, evaluation systems are not consistent across LEAs, and they do not all include the same metrics, expectations, and/or number of ratings categories. While some LEAs consider student outcomes in their performance ratings, others do not. Performance evaluation ratings are an imperfect measure of effectiveness, but they provide some information about the quality of a teacher as perceived by their LEA.

LEAs were directed to submit their teacher evaluation ratings using the four categories included in this report: “Highly Effective,” “Effective,” “Minimally Effective,” and “Ineffective.” The following guidance was provided for LEAs that use a different scale for their evaluation systems. When the data was aggregated, any values that did not match the options provided were transformed using this guidance or left blank if the appropriate category was unclear:

***What if my LEA uses a rating scale that does not match the drop-down options?*** Translate the values in your LEAs scale to the drop-down options.

- Ineffective: Teachers who do not show effectiveness in any areas. This is the lowest rating for teachers. Other common terms are “Unsatisfactory” or “Not Proficient.”
- Minimally Effective: Teachers who are not quite Effective, but demonstrate some Effective traits, or could be developed to be Effective. Other common terms are “Developing,” “Not Quite Effective,” or “Somewhat Effective.”
- Effective: Teachers who meet the bar for effective teaching at your LEA. Other common terms are “Satisfactory” or “Proficient.”
- Highly Effective: The strongest teachers at your LEA.

**Teacher Diversity:** In this report, teacher diversity is mainly a function of racial diversity. Breakdowns by gender and race are also included in Appendix B. There are many other aspects of diversity that may be

important and beneficial to students and schools that current data collection efforts do not include such as a teacher’s economic background, ethnicity, religion, native language, education, or career experiences.

Teacher race categories provided in the LEA staff roster data collection template included American Indian/Alaskan Native; Asian; Black/African American; Hispanic/Latino; Two or More Races; Pacific Islander/Native Hawaiian; White/Caucasian; Other; and Unknown. In this report, Unknown and blank or ‘NA’ data are included as “Not Reported.” The term “Teachers of Color” in this report includes American Indian/Alaskan Native, Asian, Black/African American, Hispanic/Latino, Two or More Races, Pacific Islander/Native Hawaiian, and Other. In the landscape graphic, “Other” includes Other; American Indian/Alaskan Native, Two or More Races, and Pacific Islander/Native Hawaiian.

**Teacher Experience:** Teacher experience is reported by LEAs as the number of years of teaching experience for each staff member. Teachers who started teaching in the 2018-19 school year have zero years of experience. In this report, teacher experience has been grouped into three categories: novice (zero to one year of experience), early career (two to five years of experience), and experienced teachers (six or more years of experience).

#### Teacher Supply and Demand

**Teaching Positions:** Total teaching positions were calculated by combining the total number of teachers and the number of vacant teaching positions reported on LEA staff rosters. Only positions with at least .8 FTE were counted in this report. Positions were counted as open if LEAs reported that the teacher was a “New Employee” to the LEA, hired between spring 2018 and fall 2018, the position was filled with an employee marked as an “Internal Transfer” meaning the teacher transferred between schools at the LEA, or the position was reported as a vacancy on Oct. 5.

**New Hires:** In the Supply section of this report, “new hires” refers to all teachers who are new to their school on the 2018-19 school year rosters. This includes teachers who transferred schools within their LEA.

**Local Educator Preparation Providers (EPPs):** The following is a list of EPPs based in DC as of the 2016-17 school year (see data source information below). All enrollees and completers from these EPPs are included in this report.

Program	Program Type
American University	Traditional
Capital Teaching Residency KIPP DC	Alternative, not IHE-based
Catholic University of America	Traditional
Center for Inspired Teaching	Alternative, not IHE-based
Gallaudet University	Traditional
George Washington University	Traditional
George Washington University	Alternative, IHE-based
Howard University	Traditional
Teach for America-Metro DC	Alternative, not IHE-based



Teach-Now Graduate School of Education	Alternative, IHE-based and not IHE-based
Trinity Washington University	Traditional
University of the District of Columbia	Traditional
Urban Teachers-DC	Alternative, not IHE-based

## Drivers of Demand

**Enrollment Projections:** Enrollment projections are based on historical enrollment audit data from the last five years (see student data sources below). A line of best fit was created based on any fluctuations in enrollment, and this line was extended out for the next five years to extrapolate possible future enrollment.

**Teaching Position Projections:** Historical teacher count data was provided by OSSE and includes the sum of all FTE teaching positions at public and charter schools in the city; this count is different from the teacher roster data calculations throughout the rest of the report (see data sources below). Teaching position projections assume that the 2018-19 school year student/teacher ratio will remain constant over the next five years. The number of projected teaching positions is calculated using student enrollment projections divided by the student/teacher ratio.

**Teacher Retention:** Retention in this report focuses on teachers who continued teaching at the same school from fall of the 2017-18 school year to fall of the 2018-19 school year. Teachers in the 2017-18 school year staff roster were matched with teachers in the 2018-19 school year staff roster using a combination of teacher characteristics. Additionally, LEAs marked every current year staff member as a Leaver, Returner, or Transfer, a list which was used to verify the matches between rosters. Rosters represent teacher staff as of Oct. 5 each year, which means that retention is calculated from fall to fall. Retention data were grouped into the following categories: Returners—teacher who were at the same school both years; Changed role—teachers who were at the same school both years, but moved into a non-teaching role; Changed school—teachers who were matched to roster at a different school in the 2018-19 school year at the same or a different LEA; Not found—teachers who were on a 2017-18 school year roster, but could not be found on any DC LEA the 2018-19 school year rosters.

## Data Sources

**LEA Staff Roster data:** OSSE collects staffing data annually from LEAs across the District, focusing on teacher characteristics and teaching vacancies in city schools. Staff roster data collected for the 2017-2018 school year and for the 2018-19 school year are utilized throughout the report. LEAs submitted the 2018-19 school year rosters in October 2018, and the rosters reflect all teachers employed as of Oct. 5.

**Student data:** Statistics related to students in this report came from two public data sources. The description of the student population in the Landscape section of the report is based on OSSE's DC School Report Card (<https://osse.dc.gov/dcschoolreportcard>) data file which includes 2017-18 school year numbers for all students, pre-K through adult. The student enrollment data in the Growth section is based on OSSE's enrollment audit data files (<https://osse.dc.gov/enrollment>) from 2014-15 through the 2018-19 school year. Enrollment audit numbers represent a point-in-time snapshot as of Oct. 5 each

year. Enrollment audits do not include pre-K or adult students, but do include the 2018-19 school year and have been consistently calculated over the past five years; they are, therefore, preferable for calculating projections.

**Title II EPP data:** OSSE collects data annually from educator preparation providers about their programming, enrollees, and completers. The Title II data in this report is from the 2016-17 school year, as more recent data is not yet available (<https://title2.ed.gov/Public/Home.aspx>). These data were used to calculate the race and subject area graphs of EPP completers included in the Teacher Supply and Demand section of this report.

**Teacher Survey Data (Insight):** This report also includes data from the Insight Teacher Survey—a nationally normed survey administered by TNTP, a third-party vendor—to teachers twice a year, which provides feedback to school and LEA leaders so they can improve instructional culture practices in specific, concrete ways. In DC, 228 schools take the Insight Survey. The average response rate of teachers across all schools was approximately 75 percent. The survey includes important information about whether and why teachers are planning to leave their schools. Data from the fall 2018 survey administration are included in the Retention section of this report.

### Data limitations

There are several limitations to the data and resulting analysis in this report.

- The accuracy of teacher roster data depends on how accurately LEAs were able to report information about their staff. LEAs use a variety of staffing data systems that capture and report data in different ways. Efforts were made during the data collection process to check data submissions and follow up as necessary, but some incomplete or inaccurate data may still be present. Complete roster data used in this report was collected from 50 LEAs out of 68 total LEAs in the city. These 50 LEAs include 91 percent of all schools in the District, schools that serve 89 percent of all students.
- Teacher quality is a complex construct that cannot be fully represented by discreet data points. Teacher race, experience, and evaluation ratings are used throughout this report to address the overall quality of the teacher workforce in DC. However, while these are important indicators of quality that are readily available in the data, they do not fully capture teacher quality.

## Appendix B. SY18-19 Teacher Population Detailed Demographics

Note that any counts where a group of teachers is fewer than 10 is suppressed (indicated by “n<10”). There may also be some secondary suppression where totals and percentages are not shown as to further protect the identity of teachers.

*Table 1. Teachers by race and gender*

Race	Female	Male
Black/African American	2,640 (39%)	881 (13%)
White	1,436 (21%)	499 (7%)
Hispanic/Latino	331 (5%)	135 (2%)
Asian	188 (3%)	49 (1%)
Other	69 (1%)	24 (0%)
Not Reported	413 (6%)	125 (2%)

*Table shows the percentage of teachers of each race and gender*

*Table 2. Teachers by experience level and ward*

Ward	Experienced	Early Career	Novice	No Data
1	496 (62%)	210 (26%)	73 (9%)	23 (3%)
2	173 (64%)	73 (27%)	18 (7%)	7 (3%)
3	364 (68%)	126 (24%)	37 (7%)	8 (1%)
4	603 (59%)	258 (25%)	106 (10%)	54 (5%)
5	591 (54%)	332 (30%)	136 (12%)	41 (4%)
6	581 (62%)	255 (27%)	82 (9%)	20 (2%)
7	556 (57%)	267 (27%)	112 (11%)	45 (5%)
8	606 (49%)	376 (30%)	187 (15%)	73 (6%)

*Table shows the percentage of teachers at each experience level within each ward*

Table 3. Teachers by race and ward

Ward	American Indian/Alaskan Native	Asian	Black/African American	Hispanic/Latino	Other	Pacific Islander/Native Hawaiian	Two or More Races	Unknown	White/Caucasian
1	n<10	44 (5%)	302 (38%)	120 (15%)	n<10	n<10	n<10	56 (7%)	270 (34%)
2	n<10	NA	109 (40%)	n<10	0 (0%)	0 (0%)	n<10	18 (7%)	122 (45%)
3	n<10	24 (4%)	125 (23%)	50 (9%)	0 (0%)	n<10	0 (0%)	42 (8%)	293 (55%)
4	n<10	45 (4%)	466 (46%)	101 (10%)	n<10	0 (0%)	n<10	56 (5%)	346 (34%)
5	n<10	48 (4%)	532 (48%)	104 (9%)	13 (1%)	n<10	17 (2%)	96 (9%)	287 (26%)
6	n<10	24 (3%)	453 (48%)	33 (4%)	n<10	0 (0%)	10 (1%)	130 (14%)	283 (30%)
7	n<10	20 (2%)	663 (68%)	25 (3%)	n<10	0 (0%)	n<10	117 (12%)	141 (14%)
8	n<10	22 (2%)	865 (70%)	24 (2%)	n<10	n<10	n<10	135 (11%)	186 (15%)

Table shows the percentage of teachers of each race or ethnicity within each ward

Table 4. Teachers by experience level and sector

Sector	Novice	Early Career	Experienced	No Data
Charter	411 (15%)	1,021 (37%)	1,172 (42%)	188 (7%)
DCPS	341 (8%)	877 (21%)	2,819 (68%)	93 (2%)

Table shows the percentage of teachers at each experience level within each sector

Table 5. Teachers by race and sector

Sector	Black/African American	White	Hispanic/Latino	Asian	Other	Not Reported
Charter	1,471 (53%)	674 (24%)	177 (6%)	95 (3%)	79 (3%)	296 (11%)
DCPS	2,054 (50%)	1,263 (31%)	289 (7%)	142 (3%)	15 (0%)	367 (9%)

Table shows the percentage of teachers of each race within each sector

## Appendix B. SY18-19 Open Positions Detailed Tables

Table 6. Open positions by ward and subject

Ward	Status	Art	ECE	Elementary	English	ESL	Foreign Language	Math	Other	Science & Tech	Social Studies	SPED
1	Filled - New Employee	8 (19%)	8 (14%)	22 (18%)	25 (30%)	20 (17%)	12 (32%)	20 (26%)	10 (21%)	10 (22%)	17 (38%)	24 (21%)
	Vacant on Oct. 5	1 (2%)	1 (2%)	2 (2%)	1 (1%)	1 (1%)	1 (3%)	3 (4%)	2 (4%)	0 (0%)	0 (0%)	1 (1%)
	Total Positions	42	57	120	82	119	38	77	48	46	45	113
2	Filled - New Employee	3 (19%)	5 (19%)	17 (22%)	5 (25%)	2 (14%)	0 (0%)	6 (32%)	0 (0%)	3 (23%)	3 (20%)	6 (14%)
	Vacant on Oct. 5	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (16%)	0 (0%)	0 (0%)	1 (7%)	0 (0%)
	Total Positions	16	27	78	20	14	11	19	11	13	15	43
3	Filled - New Employee	2 (7%)	0 (0%)	28 (16%)	12 (32%)	4 (13%)	7 (23%)	5 (14%)	4 (13%)	4 (10%)	6 (19%)	16 (21%)
	Vacant on Oct. 5	1 (4%)	0 (0%)	1 (1%)	1 (3%)	0 (0%)	0 (0%)	2 (5%)	0 (0%)	0 (0%)	0 (0%)	2 (3%)
	Total Positions	28	16	173	38	31	31	37	31	39	31	78
4	Filled - New Employee	7 (16%)	22 (23%)	50 (18%)	14 (23%)	33 (22%)	12 (25%)	17 (28%)	9 (22%)	11 (29%)	15 (35%)	30 (21%)
	Vacant on Oct. 5	0 (0%)	1 (1%)	7 (3%)	0 (0%)	3 (2%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	3 (2%)
	Total Positions	44	96	274	62	151	48	60	41	38	43	145
5	Filled - New Employee	10 (22%)	31 (21%)	88 (29%)	31 (39%)	6 (35%)	12 (38%)	17 (25%)	13 (20%)	12 (26%)	15 (32%)	43 (23%)
	Vacant on Oct. 5	0 (0%)	1 (1%)	4 (1%)	1 (1%)	0 (0%)	2 (6%)	0 (0%)	0 (0%)	0 (0%)	4 (9%)	1 (1%)
	Total Positions	45	150	308	80	17	32	67	64	47	47	187
6	Filled - New Employee	10 (18%)	21 (16%)	71 (26%)	15 (26%)	4 (24%)	6 (26%)	14 (25%)	8 (21%)	11 (29%)	10 (23%)	41 (21%)
	Vacant on Oct. 5	1 (2%)	0 (0%)	3 (1%)	0 (0%)	0 (0%)	0 (0%)	4 (7%)	0 (0%)	0 (0%)	1 (2%)	5 (3%)
	Total Positions	55	128	270	57	17	23	55	39	38	44	198
7	Filled - New Employee	9 (19%)	22 (15%)	36 (16%)	28 (33%)	2 (50%)	3 (16%)	31 (41%)	13 (24%)	16 (41%)	18 (36%)	48 (23%)
	Vacant on Oct. 5	1 (2%)	0 (0%)	6 (3%)	2 (2%)	0 (0%)	0 (0%)	1 (1%)	2 (4%)	2 (5%)	0 (0%)	11 (5%)
	Total Positions	47	143	229	85	4	19	76	55	39	50	210
8	Filled - New Employee	17 (29%)	56 (24%)	98 (26%)	30 (36%)	0 (0%)	10 (33%)	17 (25%)	8 (15%)	15 (36%)	16 (39%)	46 (22%)
	Vacant on Oct. 5	2 (3%)	1 (0%)	8 (2%)	0 (0%)	0 (0%)	1 (3%)	1 (1%)	0 (0%)	1 (2%)	1 (2%)	4 (2%)
	Total Positions	58	232	377	84	1	30	68	54	42	41	210

Table shows the percentage of total positions within each ward and in each subject that were filled by a new employee or vacant as of Oct. 5

Table 7. Open positions by school grade levels served

Grade Level	Status	Positions
Early Childhood Education	Filled—New Employee	179 (19%)
	Vacant on Oct. 5	2 (1%)
	Total Positions	942
Kindergarten (K)	Filled—New Employee	73 (18%)
	Vacant on Oct. 5	412
	Total Positions	620 (23%)
Elementary (Grades 1-5)	Filled—New Employee	6 (1%)
	Vacant on Oct. 5	2,640
	Total Positions	371 (32%)
Middle (grades 6-8)	Filled—New Employee	17 (1%)
	Vacant on Oct. 5	1,170
	Total Positions	327 (23%)
High School (grades 9-12)	Filled—New Employee	12 (0%)
	Vacant on Oct. 5	1,427
	Total Positions	179 (19%)

Table shows the percentage of total positions within each grade level that were filled by a new employee or vacant as of Oct. 5

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- <sup>i</sup> For an overview of OSSE’s data priority, see the [2019-2023 Strategic Plan](#).
- <sup>ii</sup> DC School Report Cards can be found here: <https://dcschoolreportcard.org/>. Other data reports produced by OSSE can be found here: <https://osse.dc.gov/page/data-and-reports-0>
- <sup>iii</sup> Kane, Kerr & Pianta. (2014). *Designing Teacher Evaluation Systems: New Guidance from the Measures of Effective Teaching Project*. San Francisco, CA: Josey Bass.
- Teacher Experience: What Does the Research Say?, TNTP (2012), [https://tntp.org/assets/documents/TNTP\\_FactSheet\\_TeacherExperience\\_2012.pdf](https://tntp.org/assets/documents/TNTP_FactSheet_TeacherExperience_2012.pdf).
- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2005). Teachers, Schools, and Academic Achievement. *Econometrica, Econometric Society, vol. 73(2)*, pages 417-458, 03. The Brookings Institution. (2006). *Identifying Effective Teachers Using Performance on the Job*. Washington, DC: Gordon, R., Kane, T. J., & Staiger, D. O.
- <sup>iv</sup> In this report, we use evaluation ratings as a proxy for teacher effectiveness, though these data are imperfect. See the sidebar about measuring teacher effectiveness and the data glossary for more information about the evaluation data used in this report.
- <sup>v</sup> Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. (2017). The Long-Run Impacts of Same-Race Teachers. *IZA Discussion Paper Series, 10630*. Retrieved from <http://ftp.iza.org/dp10630.pdf>.
- <sup>vi</sup> While many facets of diversity are critical to students’ experiences in school, this report focuses on race, in part due to the prominence of research around its importance and because data related to other types of teacher diversity (e.g., language of origin, socioeconomic status) are limited. For an overview of some of the research related to teacher racial diversity, see [The State of Teacher Diversity](#) (The Shanker Institute).
- <sup>vii</sup> Data from 2017-18 is used to examine trends over time and year-over-year retention. Teachers are counted as positions with a federal role including the word “Teacher” and staffed at least .8 FTE.
- <sup>viii</sup> While the data in this report are not displayed for specific LEAs or schools, some LEA- and school-specific talent data is available on the [DC School Report Card](#) website.
- <sup>ix</sup> Gershenson, S., Hart, C. M. D., Lindsay, C. A., & Papageorge, N. W. (2017). The Long-Run Impacts of Same-Race Teachers. *IZA Discussion Paper Series, 10630*. Retrieved from <http://ftp.iza.org/dp10630.pdf>. TNTP. (2018). *The Opportunity Myth*. New York, NY: TNTP. Grissom, J., & Redding, C. (2016). Discretion and disproportionality: Explaining the underrepresentation of high-achieving students of color in gifted programs. *AERA Open, 2(1)*. (18 January 2016); Lindsay, C. & Hart, C. (2017). Exposure to same-race teachers and student disciplinary outcomes for black students in North Carolina. *Educational Evaluation and Policy Analysis*. (1 March 2017); Dee, T. (2004). Teachers, race, and student achievement in a randomized experiment. *Review of Economics and Statistics, 86(1)*, 195-210.
- <sup>x</sup> Ingersoll, R. (2015). What do the national data tell us about minority teacher shortages? *The State of Teacher Diversity*. Washington, DC: The Albert Shanker Institute.
- <sup>xi</sup> Teachers of color includes teachers who identify as Asian, Black/African American, Hispanic/Latino, Native Indian/Alaskan Native, Pacific Islander/Native Hawaiian, Two or More Races, and Other. It does not include teachers for whom race data is not reported and those who prefer not to state their race, so the actual percentage of teachers of color might be slightly higher than reported. Ingersoll, R. (2015). What do the national data tell us about minority teacher shortages? *The State of Teacher Diversity*. Washington, DC: The Albert Shanker Institute.
- <sup>xii</sup> U.S. Department of Education (2019). *A Slightly More Diverse Public School Teaching Workforce*. <https://nces.ed.gov/blogs/nces/post/a-slightly-more-diverse-public-school-teaching-force>
- <sup>xiii</sup> U.S. Department of Education (2019). *Digest of Education Statistics*. Online Tables: [https://nces.ed.gov/programs/digest/current\\_tables.asp](https://nces.ed.gov/programs/digest/current_tables.asp)
- <sup>xiv</sup> Teacher Experience: What Does the Research Say? TNTP (2012), [https://tntp.org/assets/documents/TNTP\\_FactSheet\\_TeacherExperience\\_2012.pdf](https://tntp.org/assets/documents/TNTP_FactSheet_TeacherExperience_2012.pdf).
- Harris & Sass (2007). Teacher training, teacher quality, and student achievement. CALDER Working Paper 2. Clotfelter, Ladd, and Vigdor. (2006). “Teacher-student matching and the assessment of teacher effectiveness.” National Bureau of Economic Research.
- <sup>xv</sup> NCES Fast Facts: Teacher Qualifications, <https://nces.ed.gov/fastfacts/display.asp?id=58>
- <sup>xvi</sup> Kane, Kerr & Pianta. (2014). *Designing Teacher Evaluation Systems: New Guidance from the Measures of Effective Teaching Project*. San Francisco, CA: Josey Bass.

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<sup>xvii</sup> Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2005). Teachers, schools, and academic achievement. *Econometrica, Econometric Society*, vol. 73(2), pages 417-458, 03. The Brookings Institution. (2006). *Identifying Effective Teachers Using Performance on the Job*. Washington, DC: Gordon, R., Kane, T. J., & Staiger, D. O.

<sup>xviii</sup> Some LEAs use different names for their categories. For example, some LEAs may use terminology such as “Meeting Expectations” or “Proficient” instead of “Effective.” LEAs have decided how to translate their categories into the scale shown in Figure 4.

<sup>xix</sup> Levin, Mulhern, and Schunck. (2005). *Unintended Consequences: The Case for Reforming the Staffing Rules in Urban Teachers Union Contracts*. New York: TNTP.  
<https://tntp.org/assets/documents/UnintendedConsequences.pdf>

<sup>xx</sup> The percentage of open positions related in this section of the report does not align with teacher attrition rates later in the report for two reasons: 1) Positions were counted as open if they were filled with a new employee between spring 2018 and fall 2018, whereas teacher retention was calculated by comparing fall 2017 rosters to fall 2018 rosters. Positions that were filled with a new hire during the 2017-18 school year are not counted as open positions. 2) Open positions were calculated at the LEA-level, whereas teacher retention is calculated at the school level, so teachers who transferred schools within an LEA not considered new employees and the positions they moved into are not included as open.

<sup>xxi</sup> McVey & Trinidad. (2019). *Nuance in the Noise: The Complex Reality of Teacher Shortages*. Washington, DC: Bellwether Education Partners.

<sup>xxii</sup> Note that DC’s Educator Preparation Providers are not the only suppliers of teachers to the city. There are EPPs in surrounding areas, including Virginia and Maryland. DC also attracts educators from around the country. This section focuses on local programs because they fall under the governance of DC agencies. The data in the pipeline figures comes from Title II, which collects data directly from Educator Preparation Providers. The most recent year of data is from the 2016-17 school year, whereas the roster data included in this report is from 2018-19.

<sup>xxiii</sup> This graph is not intended to suggest that completers actually filled positions, but to compare supply and demand. Note that completers from 2016-17 were likely not seeking jobs prior to the 2018-19 school year.

<sup>xxiv</sup> TNTP (2012). *Teacher Experience: What Does the Research Say?*  
[https://tntp.org/assets/documents/TNTP\\_FactSheet\\_TeacherExperience\\_2012.pdf](https://tntp.org/assets/documents/TNTP_FactSheet_TeacherExperience_2012.pdf).

<sup>xxv</sup> The percent of teachers who are novice is slightly higher than the percentage of teachers who are “new to teaching” (reported in Fig. 9) because the novice designation includes teachers with zero to one year of experience, whereas the “new to teaching” designation only includes teachers with zero years of experience.

<sup>xxvi</sup> Evaluation rating data for teachers who were hired in 2018-19 was not yet available for this report, so ratings of teachers hired in the 2017-18 school year are used here to examine teaching performance among new hires.

<sup>xxvii</sup> Enrollment projections are based on historical enrollment data from the last five years. A line of best fit is created based on any fluctuations in enrollment, and this line is extended out for the next five years to predict future enrollment.

<sup>xxviii</sup> Historical teacher counts were provided by OSSE and do not exactly align with the 2018-19 school year teacher roster data included in the rest of this report. These teacher counts include a total of all FTE teaching positions at all DC LEAs.

<sup>xxix</sup> Adnot, Dee, Katz, & Wyckoff. (2016). *Teacher Turnover, Teacher Quality, and Student Achievement in DCPS*. CALDER Working Paper No. 153. Washington, DC: CALDER, AIR. This report compares the effectiveness of new hires to the effectiveness of those who have left. The data included in the Teacher Supply and Demand section of this report are different because they compare the effectiveness of new hires compared to the effectiveness of *all* teachers.

<sup>xxx</sup> Teachers in the 2017-18 staff roster were matched with teachers in the 2018-19 school year staff roster using a combination of teacher characteristics. Additionally, LEAs marked every current year staff member as a Leaver, Returner, or Transfer, which helped to verify the matches between rosters. However, the matching process may overestimate the percent of teachers who are leavers, either because some individuals could not be matched in the following year and/or they transferred to a school that is not included in the dataset. Rosters represent teacher staff as of Oct. 5 of each year, which means that retention is calculated from fall to fall, although teachers may have left at any point during the school year.

<sup>xxxi</sup> The number of teachers in the 2017-18 school year is used as the denominator when calculating retention rates. Note that this report examines school-level retention, not LEA-level retention, meaning teachers that transfer between schools in the same LEA are not counted as retained.



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<sup>xxxii</sup> Levy. (2018). *Teacher and Principal Turnover in Public Schools in the District of Columbia*. Washington, DC: SBOE.

<sup>xxxiii</sup> Papay, Bacher-Hicks, Page, & Marinell. (2017). *The Challenge of Teacher Retention in Urban Schools: Evidence of Variation from a Cross-Site Analysis*. Attrition rates vary considerably between districts. The data in this report span 15 years (1998-99 – 2012-13), none of which overlap with the years included in this report (2017-18 to 2018-19).

<sup>xxxiv</sup> NCES. *Digest of Education Statistics 2014*. [https://nces.ed.gov/programs/coe/pdf/coe\\_slc.pdf](https://nces.ed.gov/programs/coe/pdf/coe_slc.pdf)

<sup>xxxv</sup> Carver-Thomas. (2018). *Diversifying the Teaching Profession: How to Recruit and Retain Teachers of Color*. Learning Policy Institute. [https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying\\_Teaching\\_Profession\\_REPORT\\_0.pdf](https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying_Teaching_Profession_REPORT_0.pdf).

<sup>xxxvi</sup> In DC, 228 schools take the Insight Survey, including some schools that are not part of the Staffing Data Collaborative. The average response rate of teachers across all schools was approximately 75 percent.

<sup>xxxvii</sup> Simon & Johnson. (2013). *Teacher Turnover in High Poverty Schools: What we Know and Can Do*. Teachers College Record, 117 (3). <https://pdfs.semanticscholar.org/6210/6fb22387ad72a41d26403ec6851b2f0fd71c.pdf>

<sup>xxxviii</sup> TNTP. (2012). *Keeping Irreplaceables in DC Public Schools: Lessons in Smart Retention*. [https://tntp.org/assets/documents/TNTP\\_DCIrreplaceables\\_2012.pdf](https://tntp.org/assets/documents/TNTP_DCIrreplaceables_2012.pdf)