

Access to Experienced Teachers in Allegheny County

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Introduction

In February, as part of Research for Action's (RFA) Allegheny County Education Research project (ACER), we examined Allegheny County's Teacher Demographics finding a **stark imbalance** between the percentage of students of color (35.2%) and teachers of color (4.5%) in the county's public schools. In September, we analyzed Teacher Mobility in Allegheny County and found **higher mobility**, or teacher turnover, in county schools with disproportionately higher percentages of students of color and students with economic disadvantage. In this third brief on Allegheny County's teacher workforce, we examine whether experienced teachers are equitably distributed among students in Allegheny County district and charter schools. We find a similar trend, that on average the county's students of color and students with economic disadvantage have less access to experienced teachers.

Why teacher experience matters

Evidence from the field supports the value of teacher experience on student learning. In 2016, [The Learning Policy Institute \(LPI\)](#) released a comprehensive literature review of 30 recent studies that found *teaching experience is positively associated with student achievement gains throughout a teacher's career*. Specifically, LPI's review found:

1. Teachers experience their greatest gains in effectiveness during their initial years of teaching, but gains do in fact continue to be significant as teachers reach their second and even third decades of teaching.
2. Numerous studies confirm that, on average, brand-new teachers are less effective than those with some experience.
3. Students perform better academically and are more likely to do better on other measures of success such as school attendance when taught by more experienced teachers.

How long does it take for a teacher to become "experienced"?

Definitions of teacher experience vary by state and research study. [Most states](#) consider a teacher inexperienced if they have between 1-5 years of experience in the classroom as full-time educator. Pennsylvania's 2015 [plan](#) identified inexperienced teachers as those with one or less years of teaching experience, but the federal Civil Rights Data Collection [definition/indicator](#) for inexperienced teachers includes first or second year teachers.

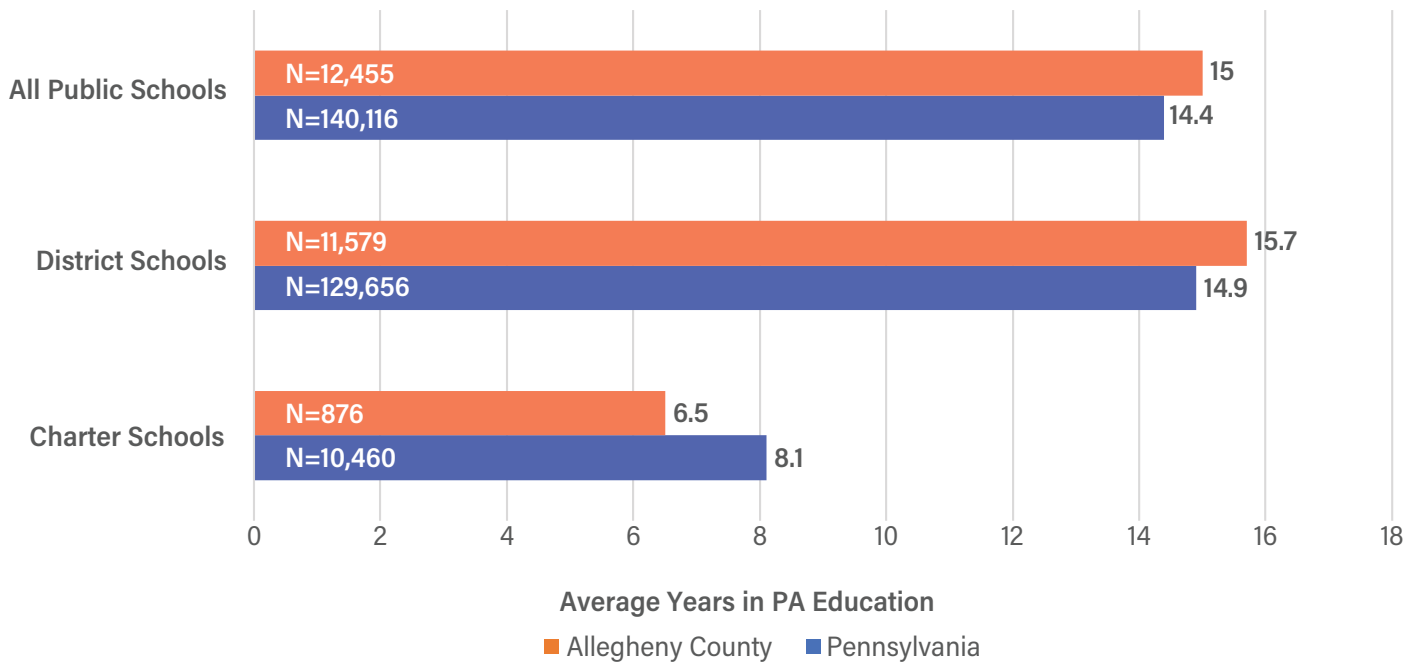
Both federal and state [policies](#) have targeted equitable distribution of experienced teachers as a critical public education reform. Unfortunately, [inequitable access](#) to experienced teachers remains a reality for students across the nation. RFA's [Educational Opportunity Dashboard](#), released in 2020, [found](#) that in U.S. high schools, students of color and students in low-income families were disproportionately taught by inexperienced teachers, mirroring [findings](#) from [previous studies](#). Overall, Pennsylvania students have greater access to experienced teachers, ranking as the 3rd highest access of the 50 states. However, the gaps in access to experienced teachers between students of color and White students and between students eligible and students not eligible for free or reduced-price lunch ranked respectively as the ninth and 19th largest among the 50 states.

In the analysis that follows, we take a closer look at teacher experience in Allegheny County, examining whether equity gaps exist in district and charter schools and between student subgroups.

Teacher experience in Allegheny County

RFA measured teacher experience using the [PDE staffing data](#) variable “Years in PA Public Education” and created tenure bands to compare the proportion of district and charter school teachers in the county and state with different levels of experience.

Figure 1. Teacher experience by school type in 2019-20: Allegheny County vs. Pennsylvania.

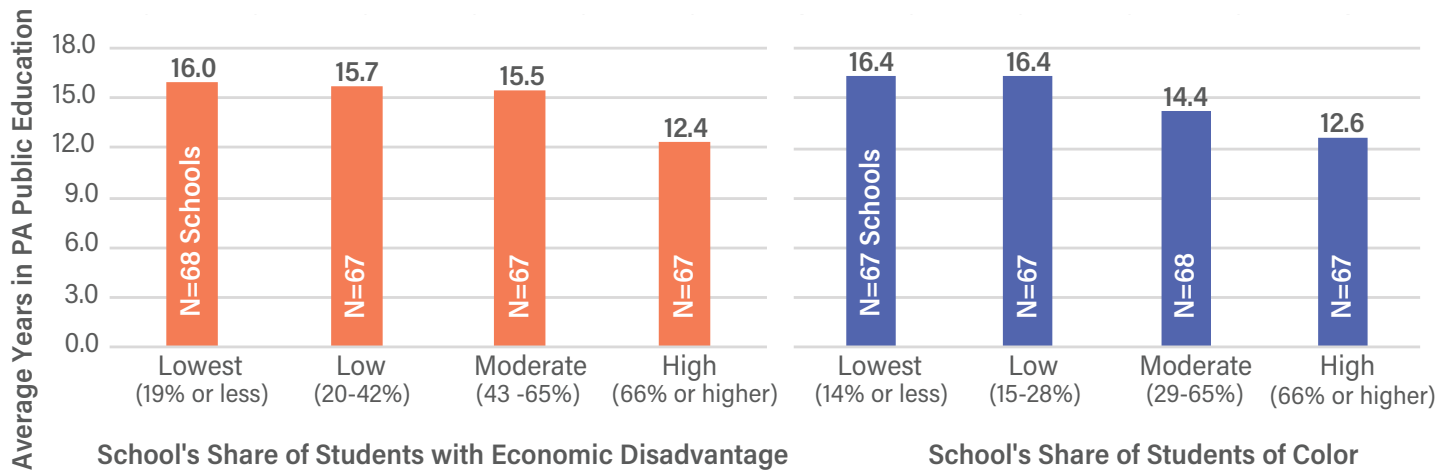


As shown in Figure 1:

- ▶ Allegheny County public school teachers have **slightly more** average years of experience in PA public education (15) than teachers across the state of PA (14.4). The same trend is found within just district schools.
- ▶ The trend is reversed in charter schools, as Allegheny County charter school teachers have **fewer** average years of experience (6.5) compared to charter school teachers statewide (8.1).
- ▶ In both the county and the state, students attending charter schools have **less access** to experienced teachers than students in district schools. Allegheny County district school teachers average over twice the years of experience compared to charter school teachers. And, while only 13% of district teachers had five or less years of average experience, over half (55%) of charter schools teachers had five or less years of experience (see Appendix A1). These findings are consistent with the “charter effect” identified by [PublicSource](#) in 2017, that Allegheny County’s charter schools on average employ less experienced professionals than district-operated public schools.
- ▶ The state, county, and sector averages mask a **wide range** of average teacher experience among Allegheny County schools, with some schools averaging only four years of teacher experience and others as high 21 years. An excel file providing average teaching experience for all schools in the county is available for download [here](#).

In Figure 2, to better understand gaps in student access to experienced teachers, we examine teacher experience in the county’s district and charter schools by comparing quartiles of schools by percentages of students with economic disadvantage and students of color.

Figure 2. Teacher experience in all Allegheny County public schools by student characteristics in 2019-20.



Note: There is considerable overlap in the quartiles of students of color and students with economic disadvantage, with 154 schools (57%) falling in the same quartile for both measures. The greatest overlap is in quartile 4, where 56 schools fall into the 4th quartile of both measures.

- ▶ On average, in 2019-20 teachers working in schools serving higher percentages of students of color and students with economic disadvantage had **less years of experience**.
- ▶ A **similar trend** is observed when restricting the sample to only schools in Pittsburgh Public Schools (See Appendix A2).
- ▶ In 2019-20, schools serving higher percentages of students of color and students with economic disadvantage (quartiles 3 and 4 combined) employed a **greater share** (over 60%) of the county's teachers with five or fewer years of experience (See Appendix A3-4).

Conclusion

Parallel to the nation and state, we found experienced teachers are not evenly distributed across Allegheny County schools. Instead, charter schools, schools with higher percentages of students of color, and schools with higher percentages of students with economic disadvantage are all more heavily staffed by teachers with less experience on average. These trends, along with the lack of [teacher diversity](#) and disparities in [teacher mobility](#) discussed in previous ACER briefs, should be considered by district and charter school leadership when making staffing decisions and crafting policies to recruit and retain educators. These findings can also guide policymakers working to eradicate teacher equity gaps in Allegheny County and across the state.

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About ACER

RFA's Allegheny County Education Research (ACER) project is designed to inform education policy discussions in Pittsburgh and Allegheny County through rigorous, objective policy briefs and research-based commentaries. The goal is to provide accessible and actionable research that helps local education policymakers, practitioners, families, and the community at large better understand what is and is not working for youth and to ultimately contribute to system-wide improvements.

Appendix A. Data tables

A1. Allegheny County teacher experience in PA public education by sector in 2019-20.

Sector	Percent of sector's teachers by years of experience							Total # of teachers
	1-2 years	3-5 years	6-10 years	11-15 years	16-20 years	21-25 years	26 years or more	
Charter N = 23 schools	23.5%	31.9%	24.8%	12.9%	4.3%	1.6%	1.0%	876
District N = 246 schools	4.1%	9.2%	13.8%	20.9%	22.4%	18.4%	11.2%	11,579

A2. Teacher experience in Pittsburgh Public Schools by student characteristics in 2019-20.

Quartile	% Students of Color	Average Years in PA Public Education
1 (N= 14 Schools)	57.1% or less	14.4
2 (N= 13)	57.2-67.3%	15.4
3 (N= 15)	67.4-87.2%	13.6
4 (N=13)	87.3% or higher	11.8
Quartile	% Students with Economic Disadvantage	Average Years in PA Public Education
1 (N= 14 Schools)	57.8% or less	14.5
2 (N=14)	57.9-68.6%	14.6
3 (N=13)	68.7-85.4%	14.1
4 (N=14)	85.5% or higher	12.1

A3. Share of Allegheny County public school teachers by years of experience, in quartiles of schools with similar percentages of students of color in 2019-20.

School Quartiles: By % Students of Color	Share of Allegheny County's Teachers by Years of Experience						
	1-2 years	3-5 years	6-10 years	11-15 years	16-20 years	21-25 years	26 years or more
Quartile 1 – 14.43% or less (67 schools & 3,348 teachers)	16.0%	17.8%	24.4%	28.6%	29.8%	29.3%	32.1%
Quartile 2 – 14.44-28.52% (67 schools & 3,345 teachers)	15.2%	16.9%	26.3%	28.4%	27.8%	30.5%	33.2%
Quartile 3 – 28.53-65.12% (68 schools & 3,065 teachers)	30.6%	26.8%	24.6%	25.4%	25.0%	21.8%	21.5%
Quartile 4 – 65.13% or higher (67 schools & 2,697 teachers)	38.2%	38.5%	24.7%	17.6%	17.4%	18.4%	13.2%
Total Teachers (12,455)	680	1,347	1,820	2,529	2,631	2,141	1,307

Note: Quartile 3 includes seven charter schools and Quartile 4 includes 16 charter schools.

A4. Share of Allegheny County public school teachers by years of experience, in quartiles of schools with similar percentages of students with economic disadvantage in 2019-20.

School Quartiles: By % Students with Economic Disadvantage	Share of Teachers by Years of Experience						
	1-2 years	3-5 years	6-10 years	11-15 years	16-20 years	21-25 years	26 years or more
Quartile 1 – 19.78% or less (68 schools & 3,366 teachers)	18.4%	18.8%	29.8%	27.2%	27.5%	25.1%	38.0%
Quartile 2 – 19.79-42.77% (67 schools & 3,666 teachers)	20.4%	22.6%	27.8%	32.5%	31.2%	33.0%	28.1%
Quartile 3 – 42.78-66.04% (67 schools & 2,779 teachers)	19.7%	20.6%	19.0%	23.2%	24.4%	24.7%	20.4%
Quartile 4 – 66.05% or higher (67 schools & 2,644 teachers)	41.5%	38.0%	23.4%	17.1%	16.9%	17.3%	13.5%
Total Teachers (12,455)	680	1,347	1,820	2,529	2,631	2,141	1,307

Note: Quartile 2 includes two charter schools, Quartile 3 includes five charter schools, and Quartile 4 includes 16 charter schools