

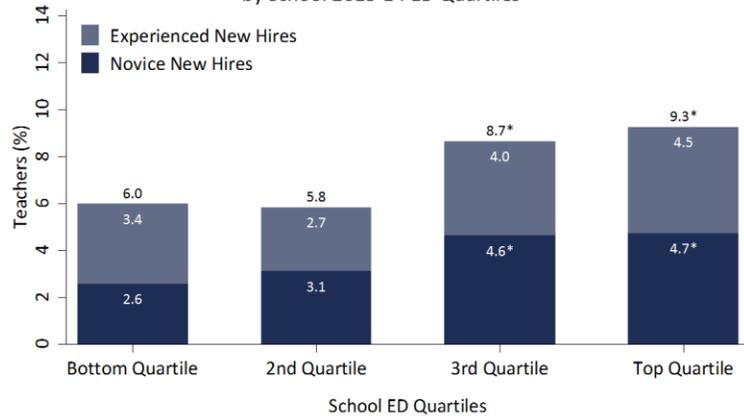
'The Set': What are the most significant "teacher equity" gaps in Delaware?

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Monthly Data Briefs from the Delaware Department of Education's Teacher and Leader Effectiveness Unit (TLEU)

A considerable body of research has documented the disparity in access to effective teaching that exists between poor and minority students as compared to their more affluent and non-minority peers. The U.S. Department of Education has recently called on states to develop plans to ensure that all students have equitable access to excellent educators. This brief considers how rates of first-year teachers, teacher turnover, experienced teacher class assignments, and teacher evaluation results—all indicators of "teacher equity"—vary according to student characteristics in Delaware.

Share of Teachers Who Are New Hires
by School 2013-14 ED Quartiles



*Significantly different from the bottom quartile value, at the 95 percent confidence level.
Notes: Sample includes 7,599 teachers with teacher job codes in comprehensive, vocational, and magnet schools. Data are from the 2013-14 school year. All data are from Delaware Department of Education records.

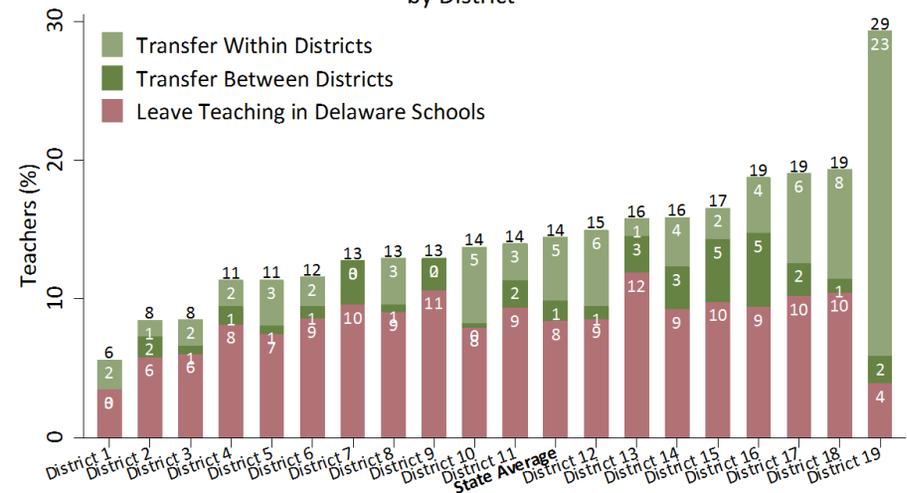
The proportions of new hires and first-year teachers in Delaware schools are related to school composition of economically disadvantaged students.

- *Poorer schools exhibit higher shares of newly hired teachers:* Newly hired teachers in Delaware constitute about 9 percent of the workforce in schools above the state median in economically-disadvantaged (ED) students composition, compared to roughly 6 percent in those schools with below the median.
- *Novice teachers are more common in poorer schools:* Novice teachers are roughly twice as common in schools in the top quartile of ED students (poorest) as they are in schools in the bottom quartile (most affluent). Research has shown that, on average, first-year teachers are less effective than more experienced teachers.

Teacher turnover varies considerably across schools and districts in Delaware.¹

- *Teachers leave Delaware schools at different rates across districts:* Four districts exhibited an out-of-state turnover rate of 6 percent or less, whereas 6 districts recorded rates of 10 percent or higher.
- *Differences in turnover are even more apparent when teacher transfers are included.* In the three highest turnover districts in the state, roughly one in five teachers left their school before the 2013-2014 school year; the three lowest turnover districts in the state had turnover rates less than half this amount.²
- *Schools with the greatest shares of minority students have higher turnover:* In schools with the greatest share of minority students (top quartile) the turnover rate was 18.6 percent compared to 10.7 percent in schools in the bottom quartile.

Average Teacher Turnover
by District

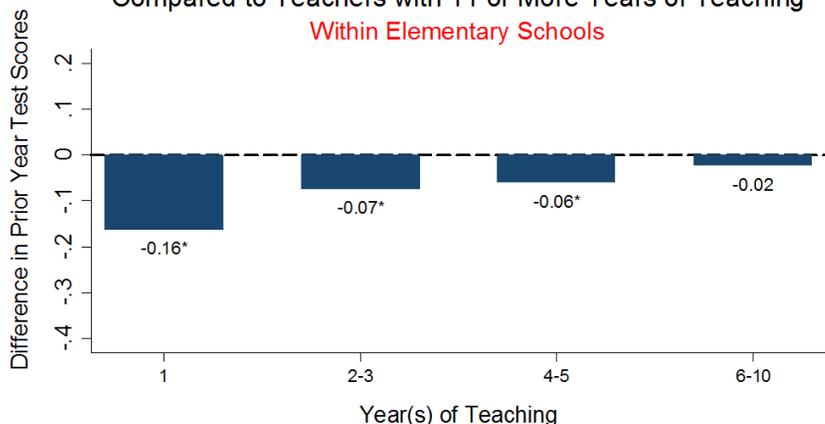


Notes: Sample includes 7,682 teachers with teacher job codes in comprehensive, vocational, and magnet schools. Data are from the 2012-13 school year. Retention analysis is based on one-year retention rates. All data are from Delaware Department of Education records.

Notes: 1. For more information on teacher turnover in Delaware schools, see <http://tinyurl.com/mff95br>. 2. The high rate of within district transfer in District 19 is largely due to school restructuring.

Difference in Average Prior Math Performance of Students Assigned to Early-Career Teachers Compared to Teachers with 11 or More Years of Teaching

Within Elementary Schools



*Significantly different from zero, at the 95 percent confidence level.
 Notes: Sample includes comprehensive and magnet school teachers with teacher job codes and their students in grades 4 and 5 with prior year test scores in the 2006-07 through 2011-12 school years, with 3,576 teacher years, 76,169 student years, 1,162 unique teachers, and 50,712 unique students. Test scores are normalized to have an average of zero and a standard deviation of one, and are shown in standard deviation units. All data are from Delaware Department of Education records.

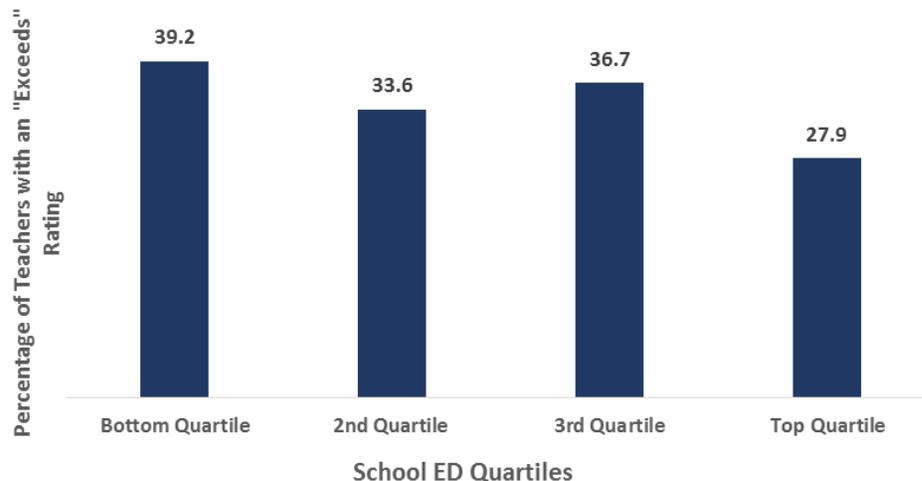
Disparities in access also exist when looking within Delaware schools.

- Students who are most academically prepared are more likely to be placed with the most experienced teachers within schools: Student of teachers with 6 or more years of experience have prior mathematics achievement nearly one-tenth of a standard deviation (s.d.)³ higher than students in the same school who are placed with teachers having 5 or fewer years of experience.
- First-year teachers are placed with the students who are least academically prepared: When we look across schools students of first-year teachers have average prior achievement which is 0.30 s.d lower than students of teachers with the most experience. Although less pronounced, we see this same pattern within schools where students of first-year teachers have average prior achievement which is 0.16 s.d. lower than students of teachers with 11 or more years of experience.

How do Measure A ratings compare across schools?

- Students in the poorest schools have less access to teachers who are rated as “Exceeds” on Measure A (the student growth measure based on the state math and English assessment): Over 39 percent of teachers working in schools in the bottom quartile of ED rates (most affluent) are rated as “Exceeds,” compared to only 28 percent of teachers in the top quartile (poorest).
- Differences across school minority compositions are even more pronounced: Performing similar analyses across school minority composition shows that 47.1 percent of teachers receive an “Exceeds” rating in Measure A in schools in the bottom quartile of minority composition, compared to only 29.5 percent in the top quartile.

Measure A Ratings by School 2013-2014 ED Quartiles



Notes: 3. To put this into perspective, the black-white achievement gap is roughly one-half to three-quarters of a s.d., depending on the grade level, subject, and assessment used.