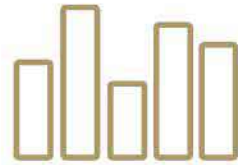


# A. Delaware Educator Diagnostic: Analysis of the First State's Workforce



STRATEGIC **DATA** PROJECT

# Delaware Educator Diagnostic: An Analysis of The First State's Workforce

[www.gse.harvard.edu/sdp](http://www.gse.harvard.edu/sdp)



STRATEGIC DATA PROJECT

# MISSION

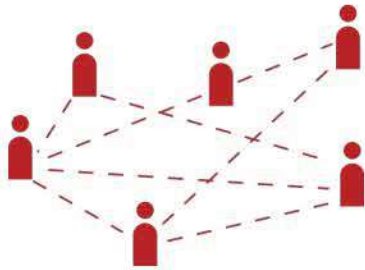
*Transform the use of data in  
education to improve student  
achievement.*



# Core Strategies

## 1. Fellows

Place and support **data strategists** in agencies



who will influence policy at the local, state, and national levels.

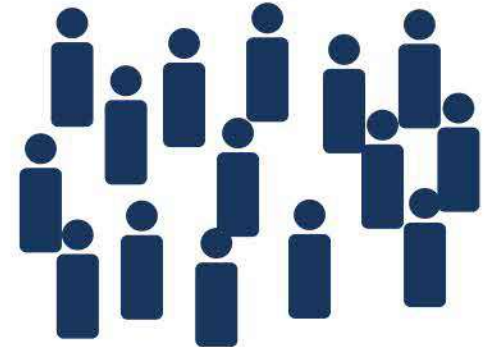
## 2. Diagnostic Analyses



Create **policy- and management-relevant standardized analyses** for districts and states.

## 3. Scale

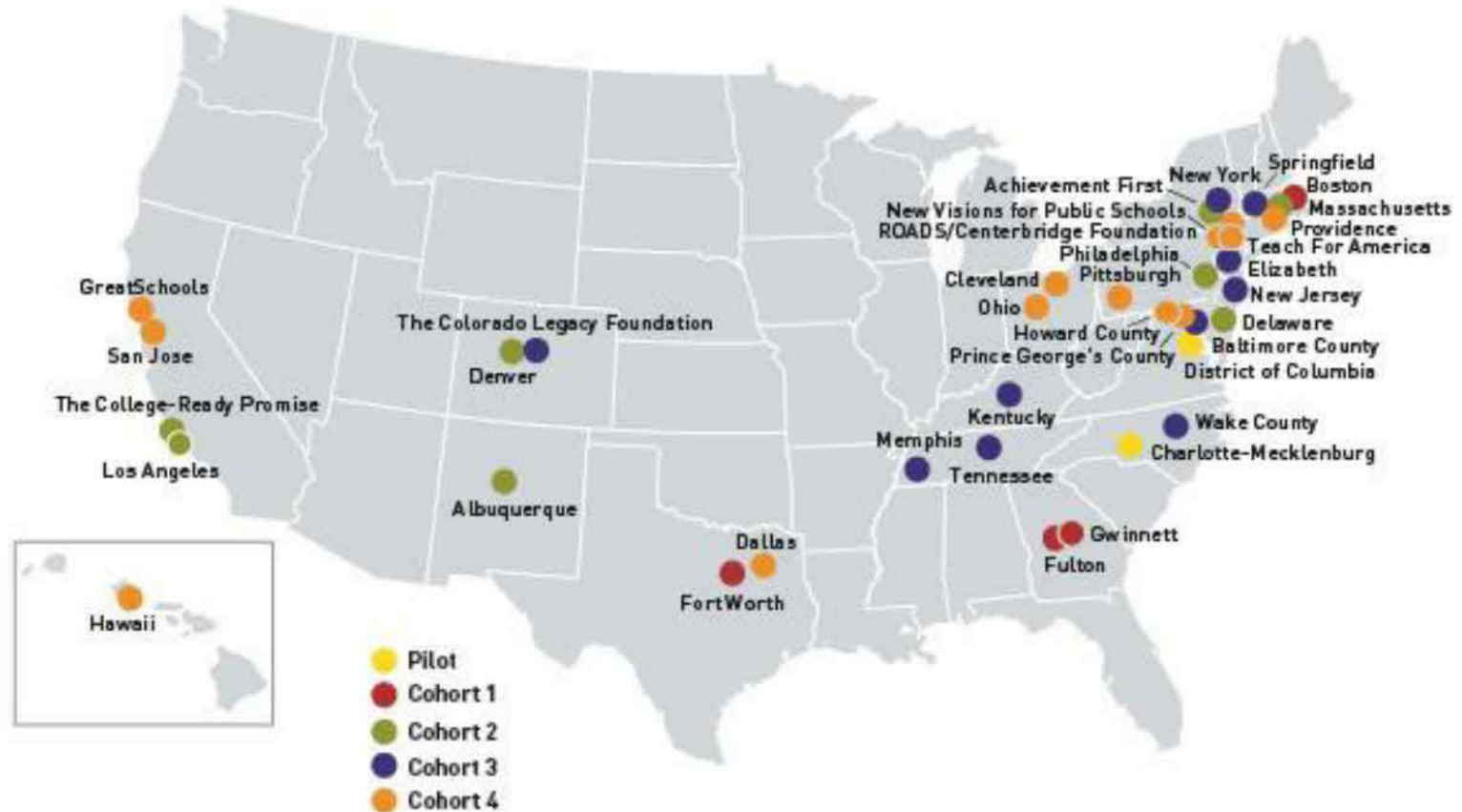
Improve the way data is used in the education sector.



Achieve broad impact through wide dissemination of analytic tools, methods, and best practices.

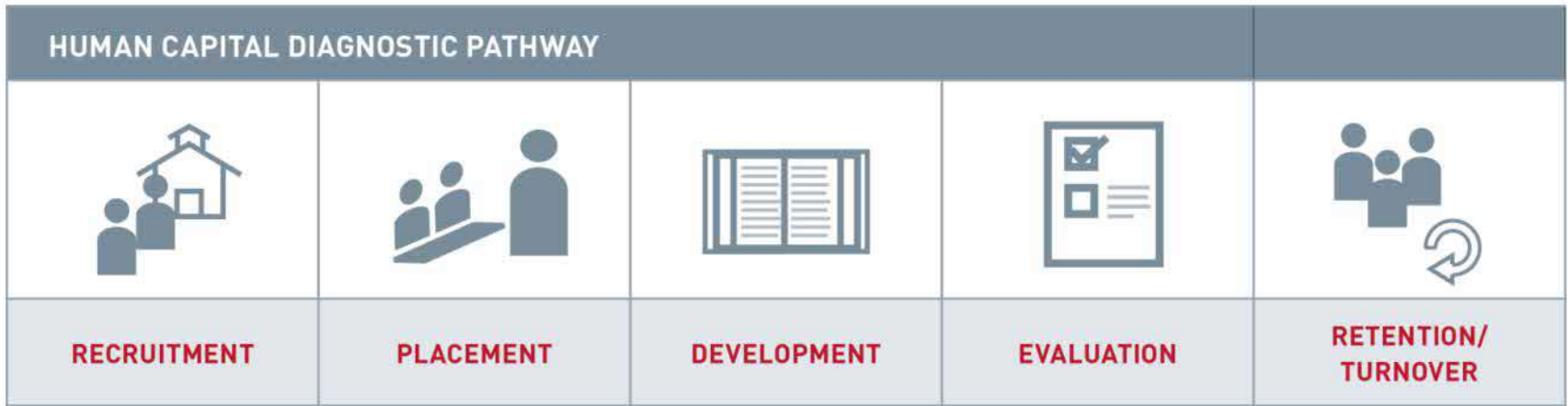


# The SDP Family





# Educator Diagnostic Pathway

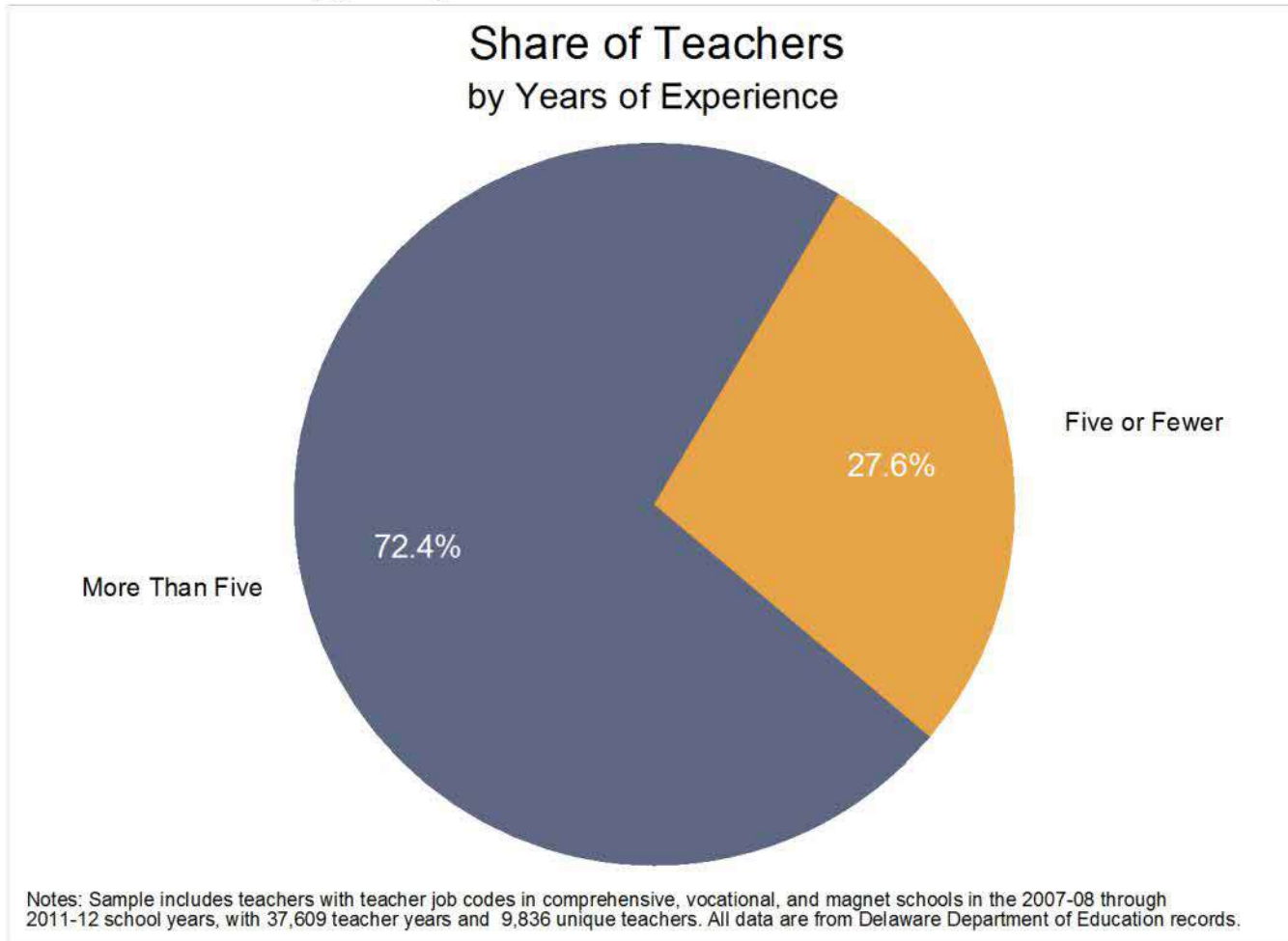




# RECRUITMENT



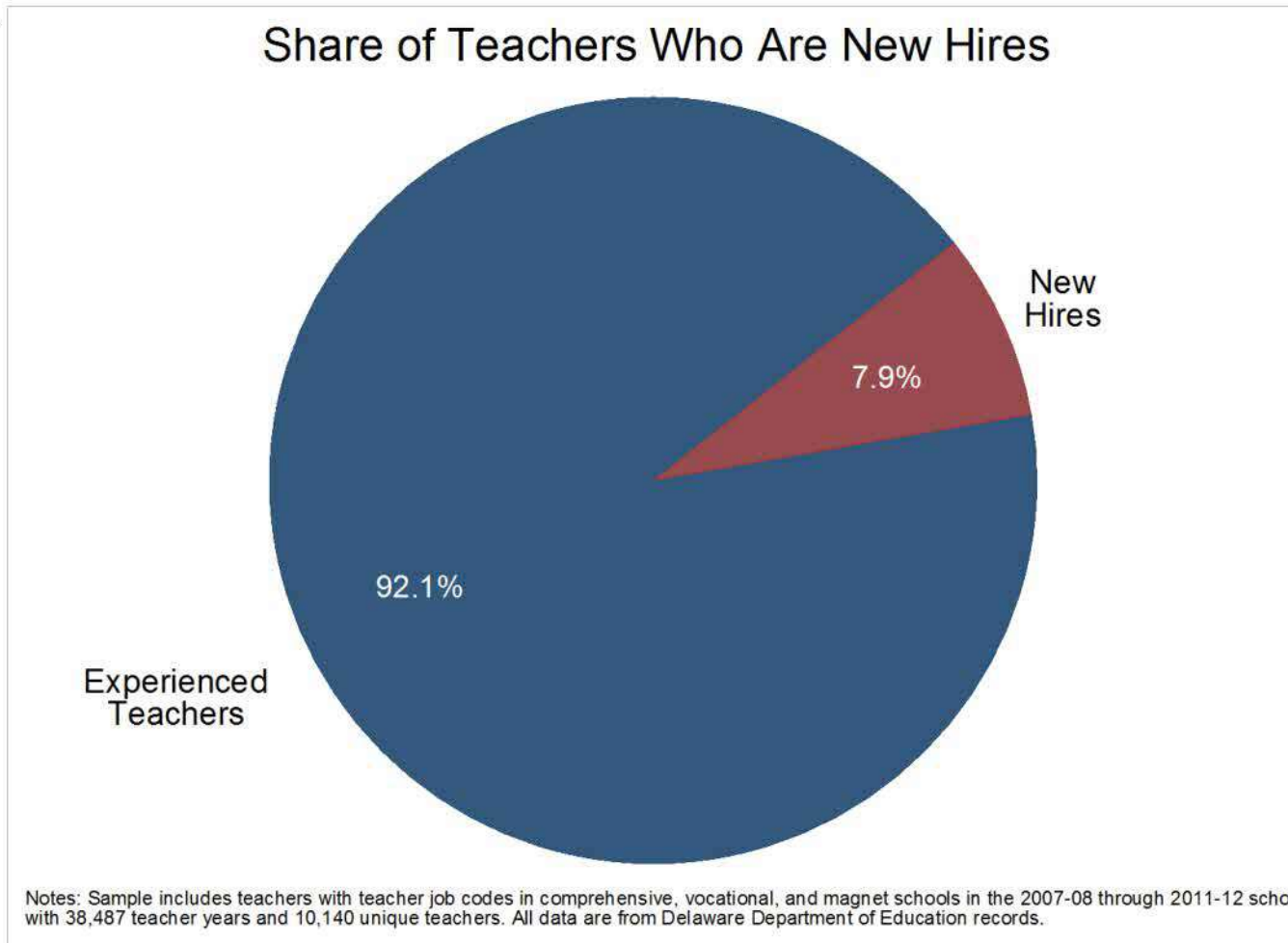
# More than a quarter of teachers have five or fewer years of teaching experience





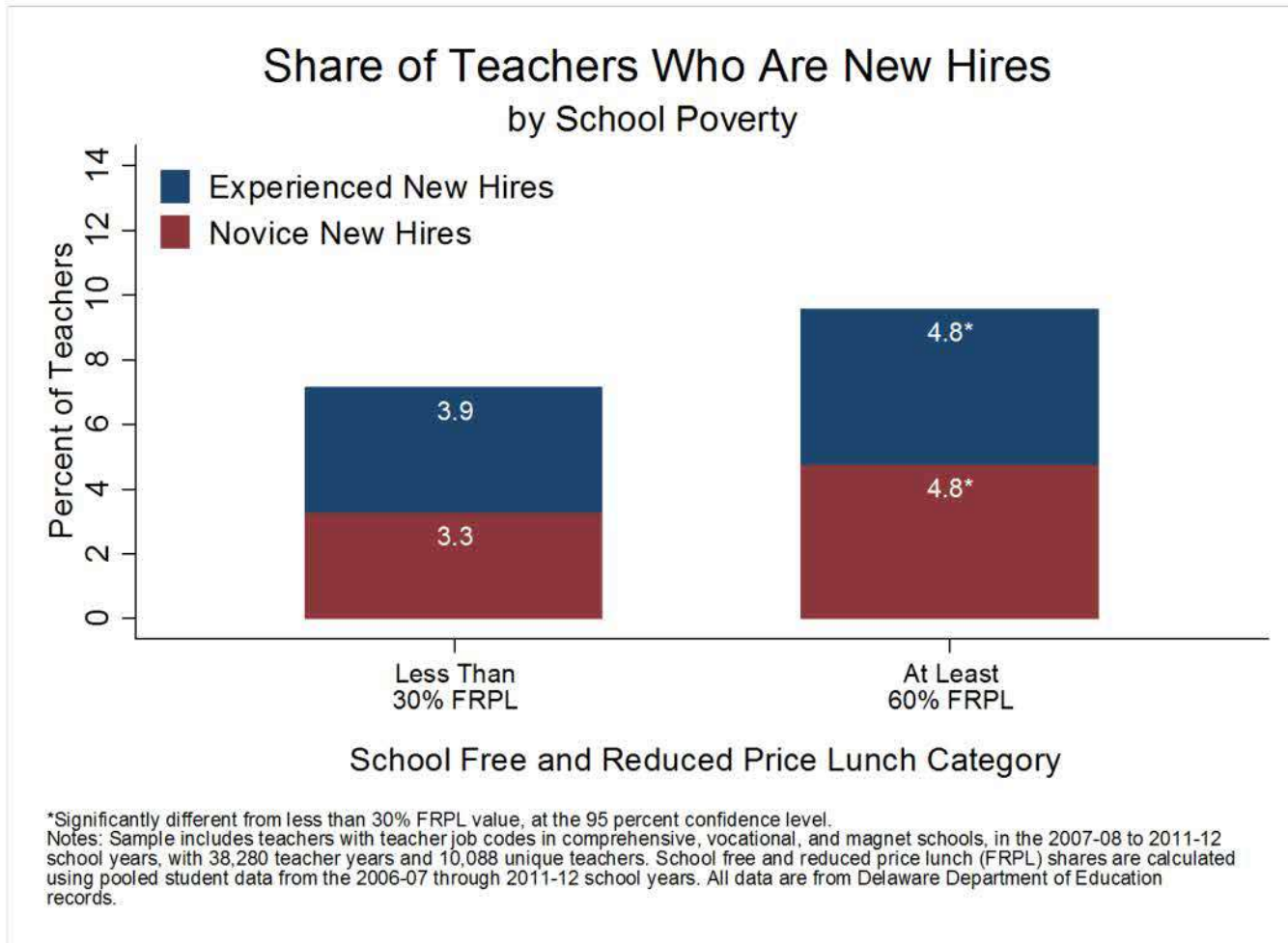


# Fewer than one in twelve teachers are new hires each year





# High-poverty schools have larger shares of new hires than low-poverty schools





# Teacher characteristics differ markedly between high- and low-poverty schools

## Teacher Characteristics by School Poverty Level

	State Average	Average for High-Poverty Schools (≥60% FRPL)	Average for Middle-Poverty Schools (30-59% FRPL)	Average for Low-Poverty Schools (<30% FRPL)	Difference between High- and Low-Poverty Schools
Percent Male	23.9	13.8	26.8	24.7	-11.0*
Percent African American	10.4	13.1	10.4	7.9	5.2*
Percent Hispanic	1.6	2.4	1.4	1.3	1.1*
Percent White	87.0	83.9	87.1	89.9	-6.0*
Percent Novice	3.9	4.9	3.8	3.3	1.6*
Average Years Experience	12.4	11.2	12.7	12.9	-1.7*

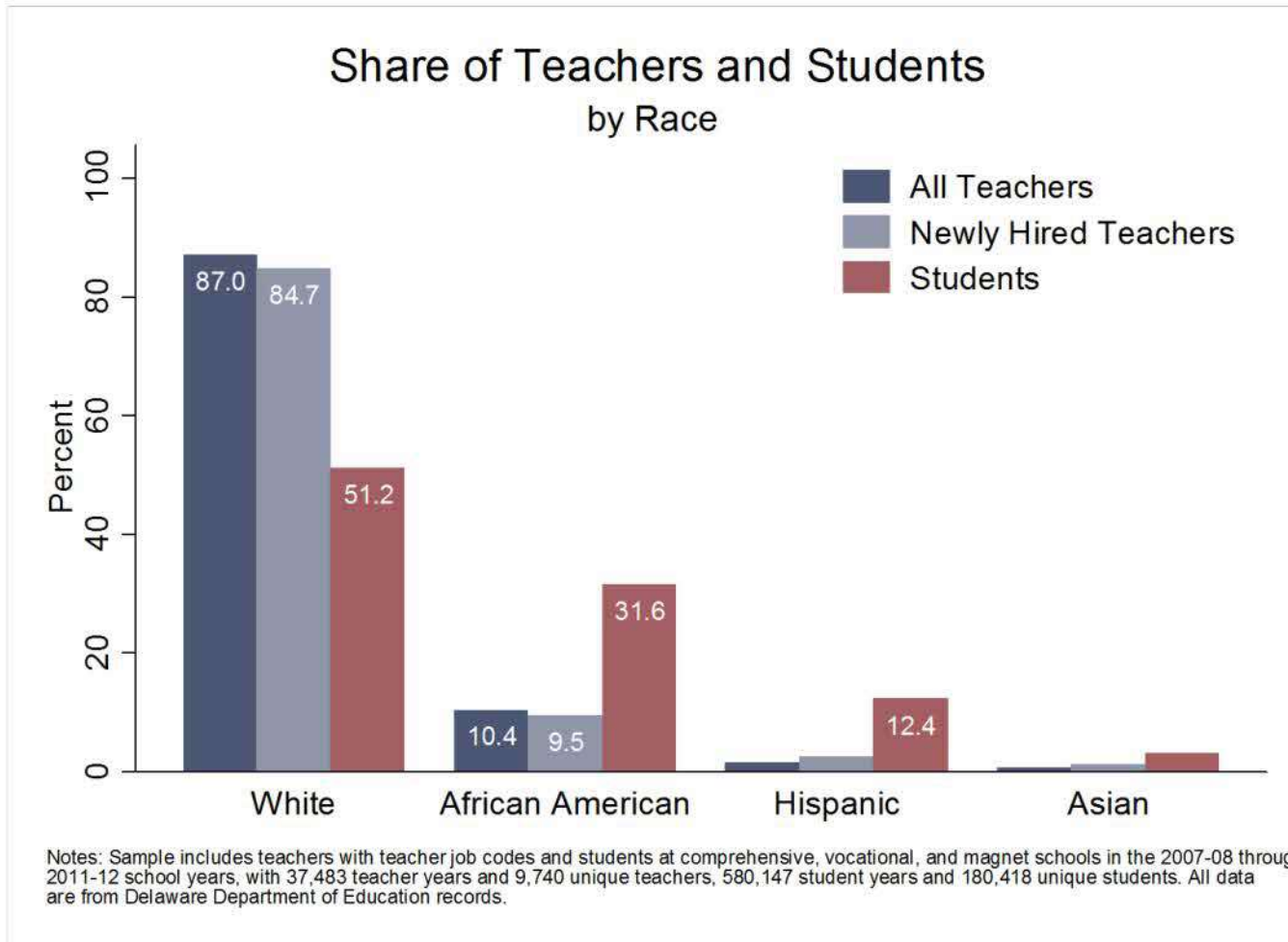
\*Difference is statistically significant at the 95 percent confidence level.

Notes: Sample includes teachers with teacher job codes in comprehensive, vocational, and magnet schools in the 2007-08 through 2011-12 school years, with 38,280 teacher years and 10,088 unique teachers. High-/middle-/low-poverty schools category includes 44/104/33 unique schools. School free and reduced price lunch (FRPL) shares are calculated using pooled student data from the 2006-07 through 2011-12 school years. All data are from Delaware Department of Education records.





# Teachers are less likely to be minority than students

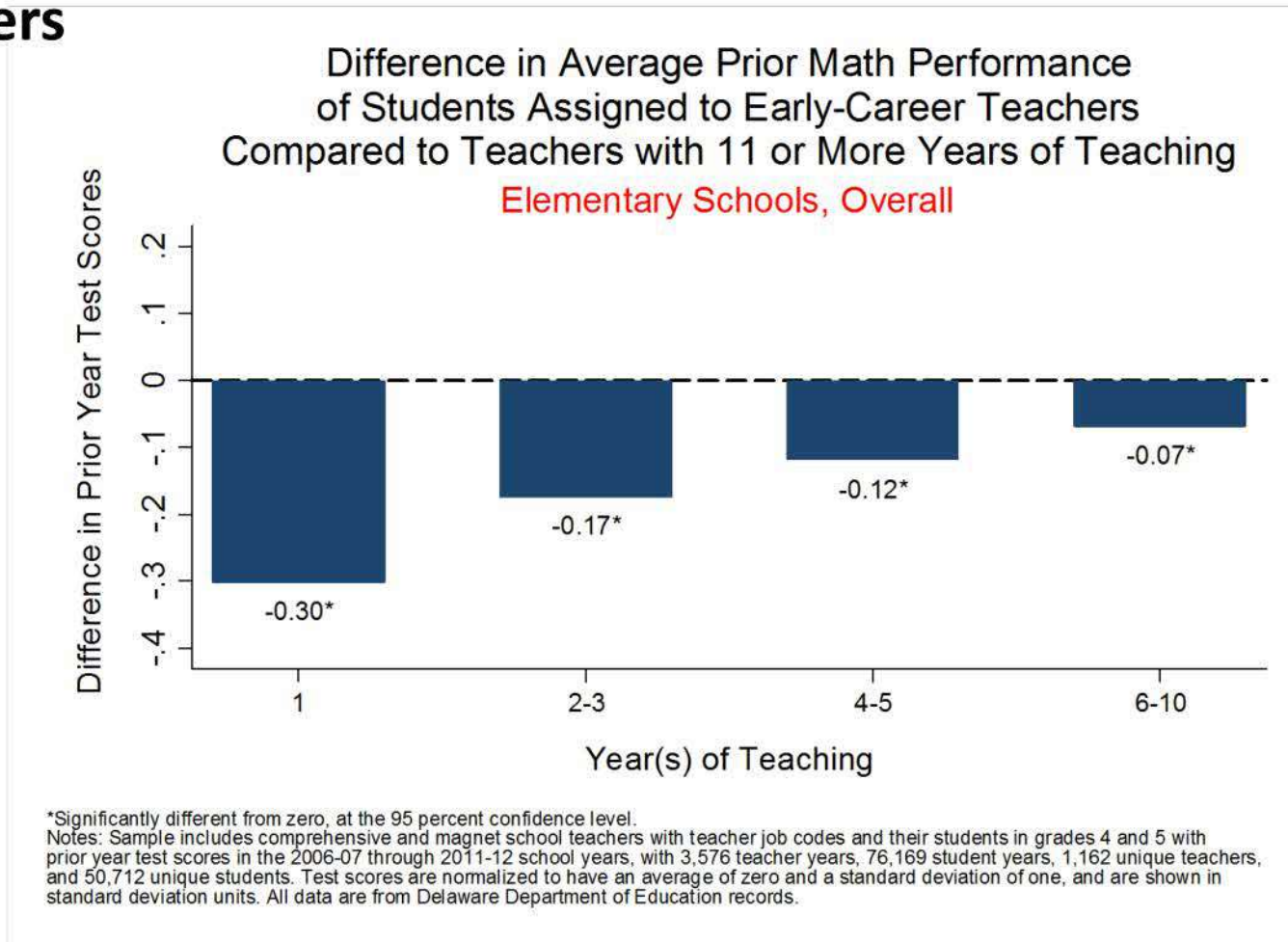




# PLACEMENT

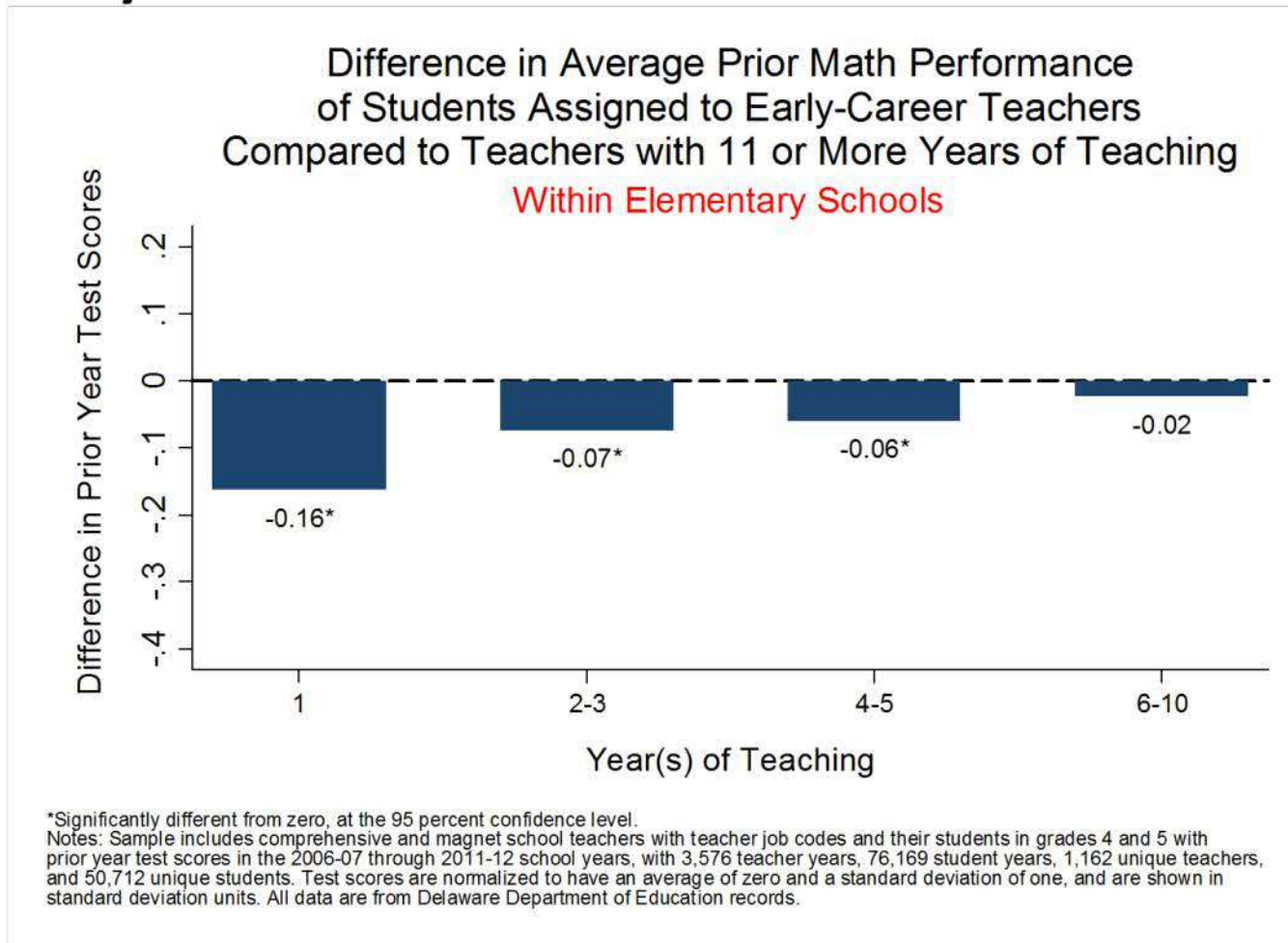


# The least academically prepared elementary students are more likely to be placed with the most inexperienced teachers



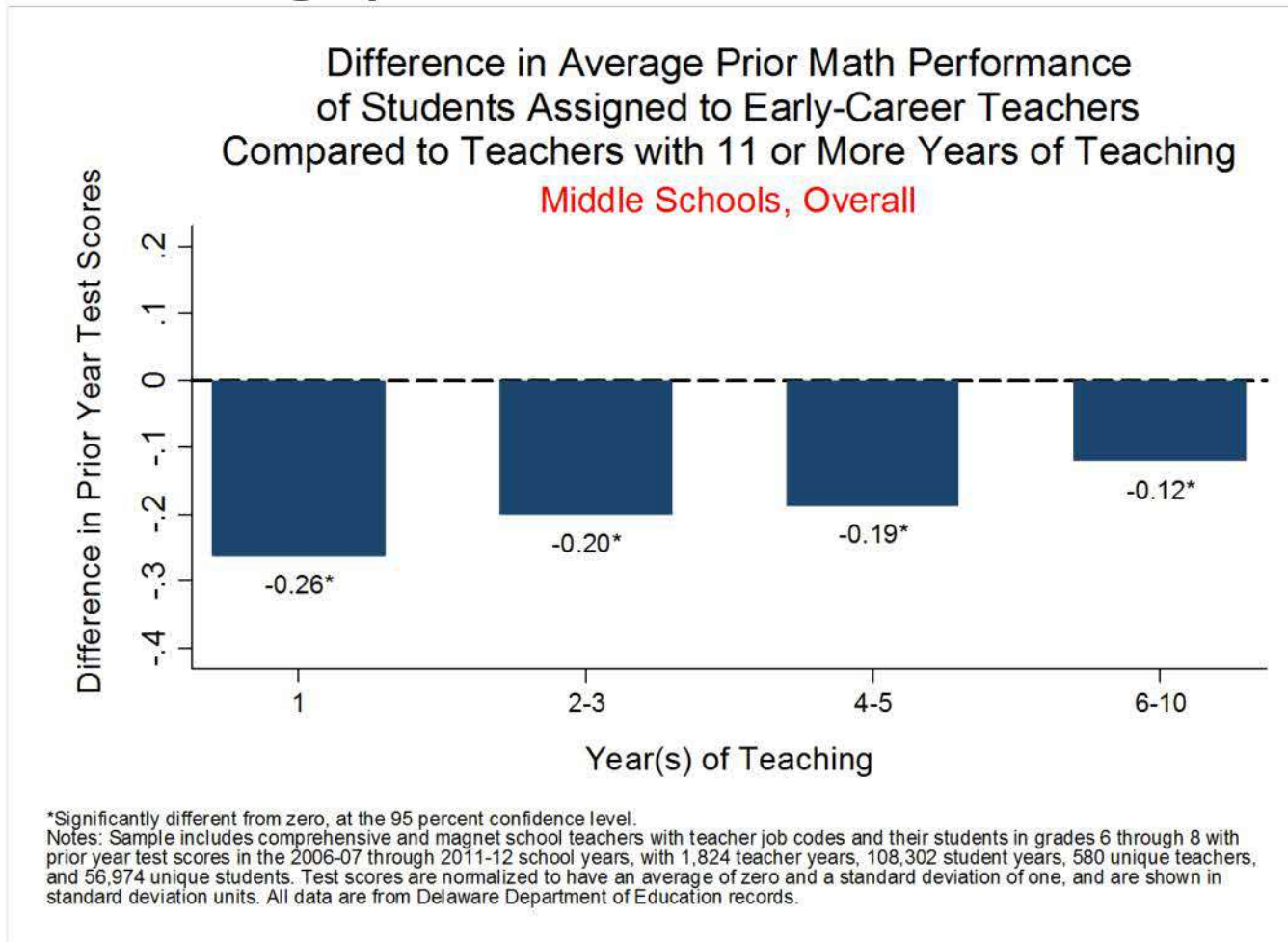


## This is also true when we look at student placement within elementary schools





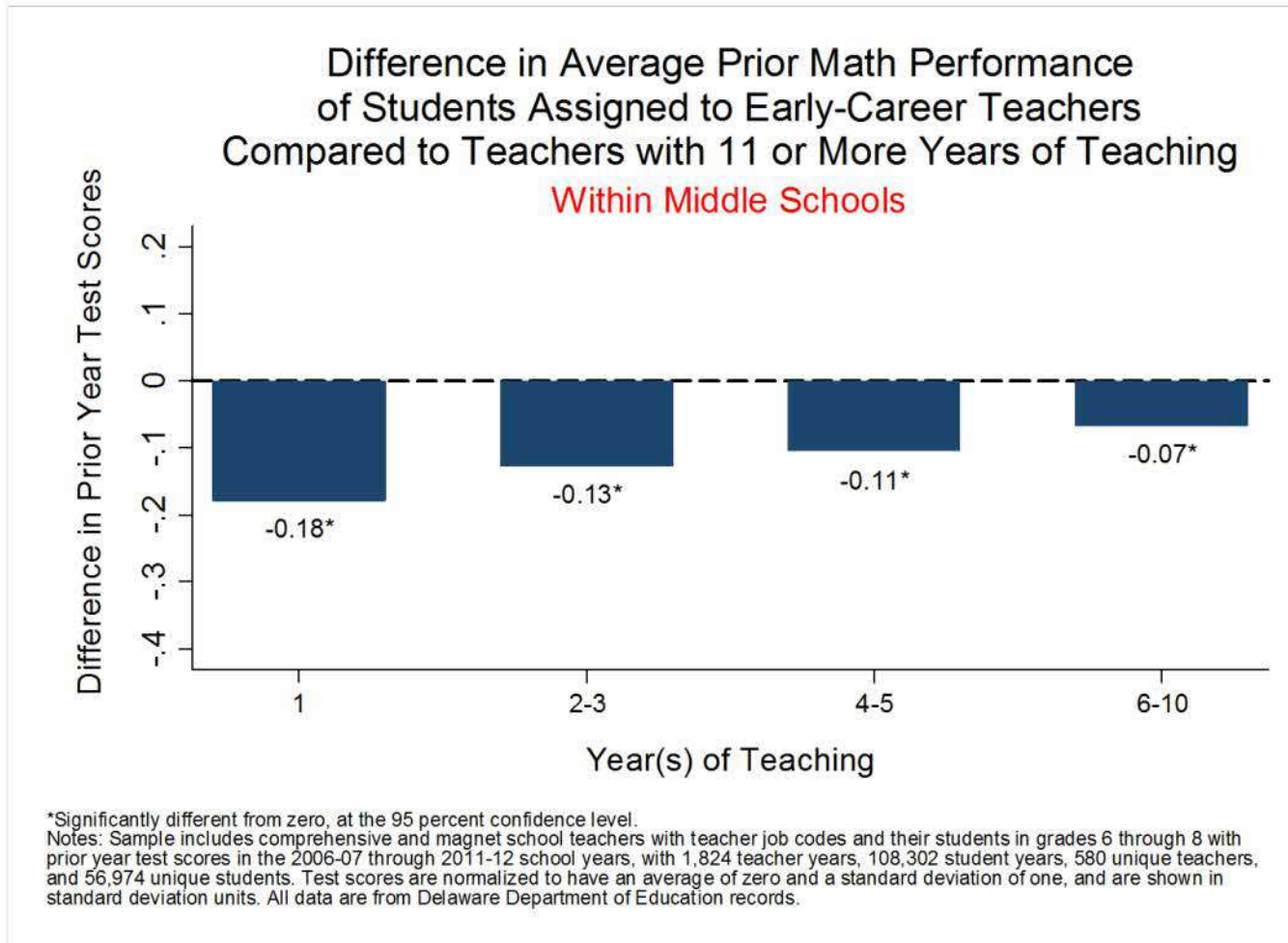
# In middle schools, inexperienced teachers also have students with lower average prior test scores







## These differences also exist within middle schools

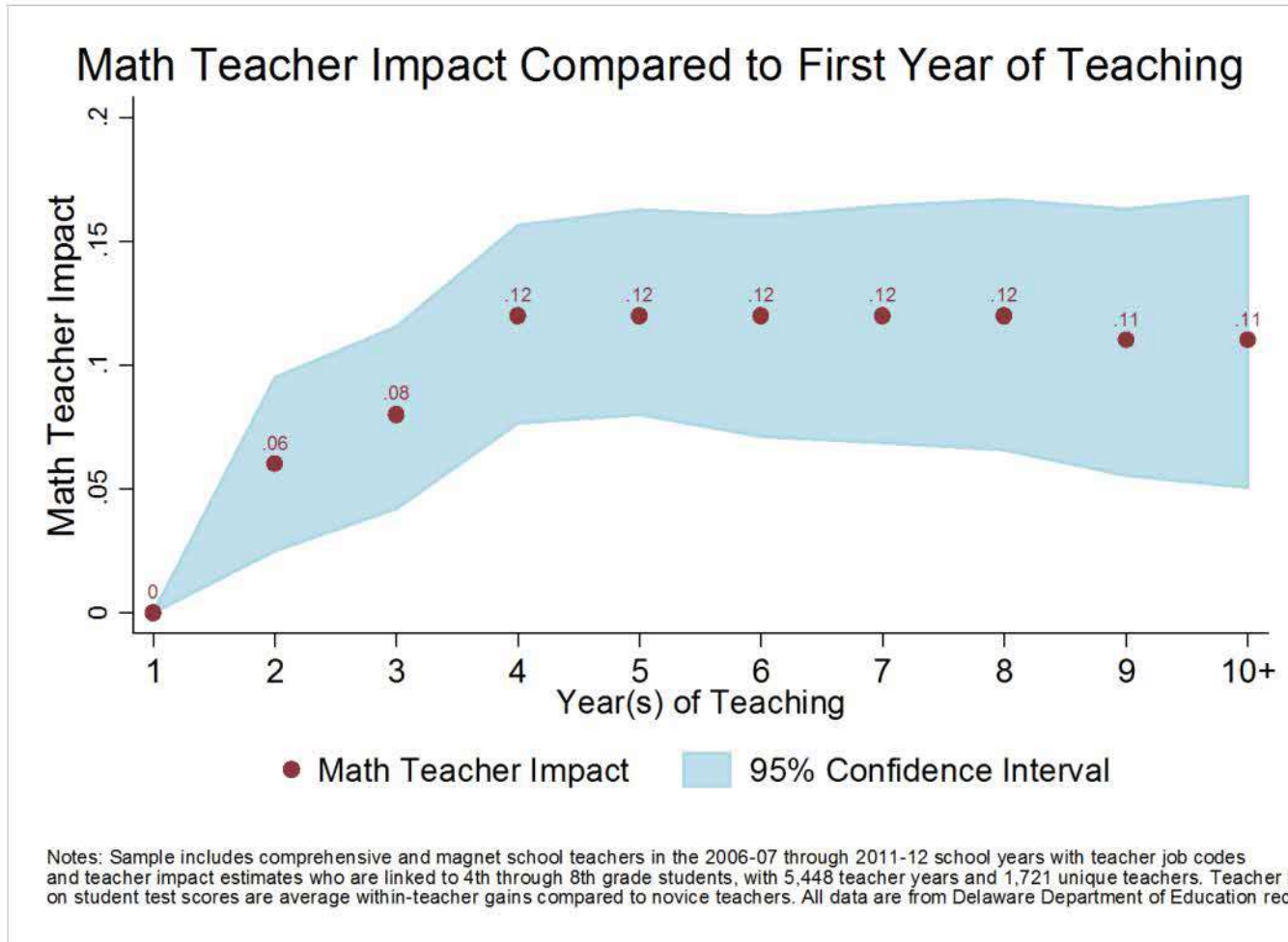




# DEVELOPMENT

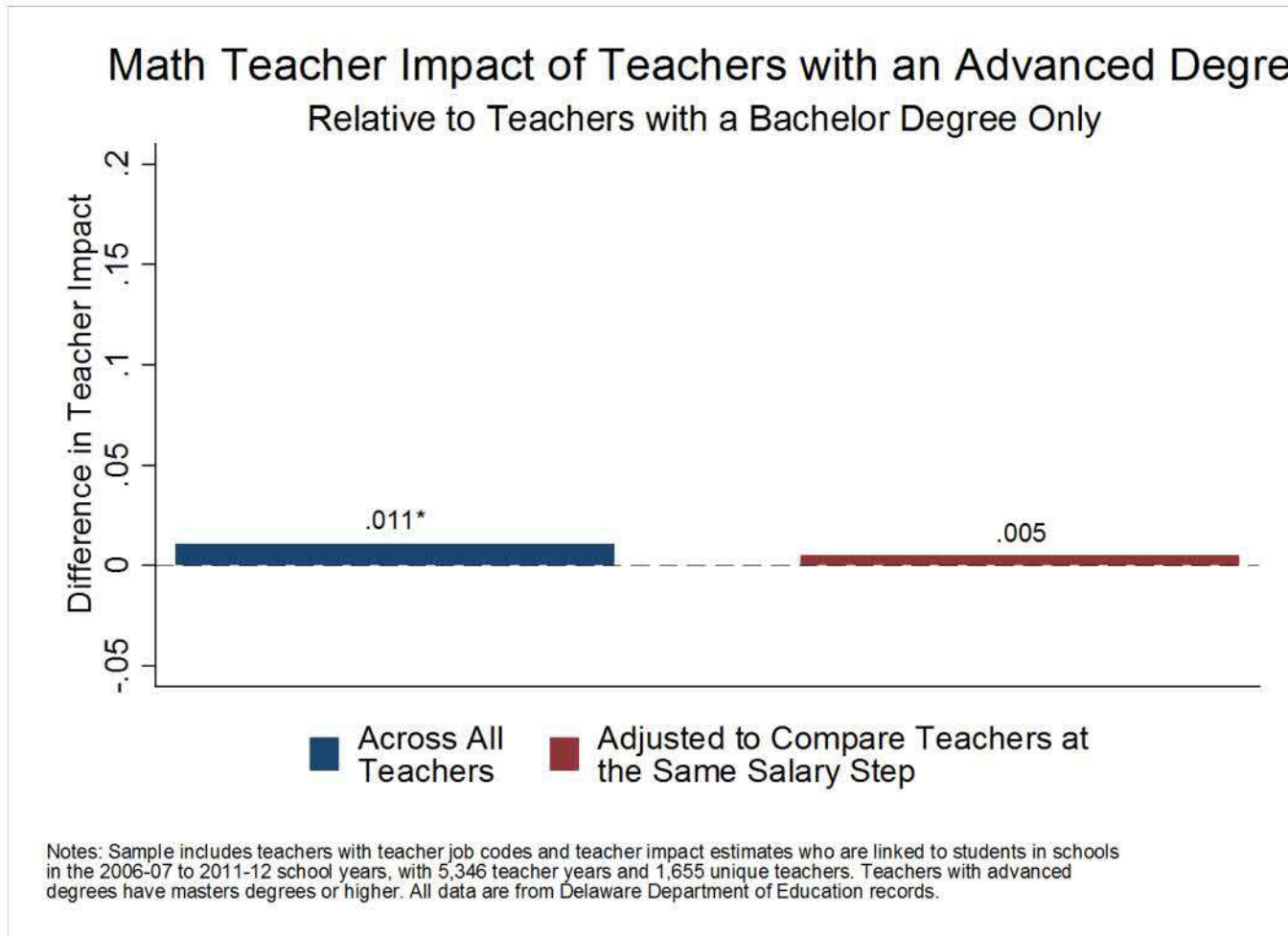


# Teacher impact on student math achievement increases the most in the first few years of teaching





# There is little difference in impact on student achievement between teachers with and without masters degrees

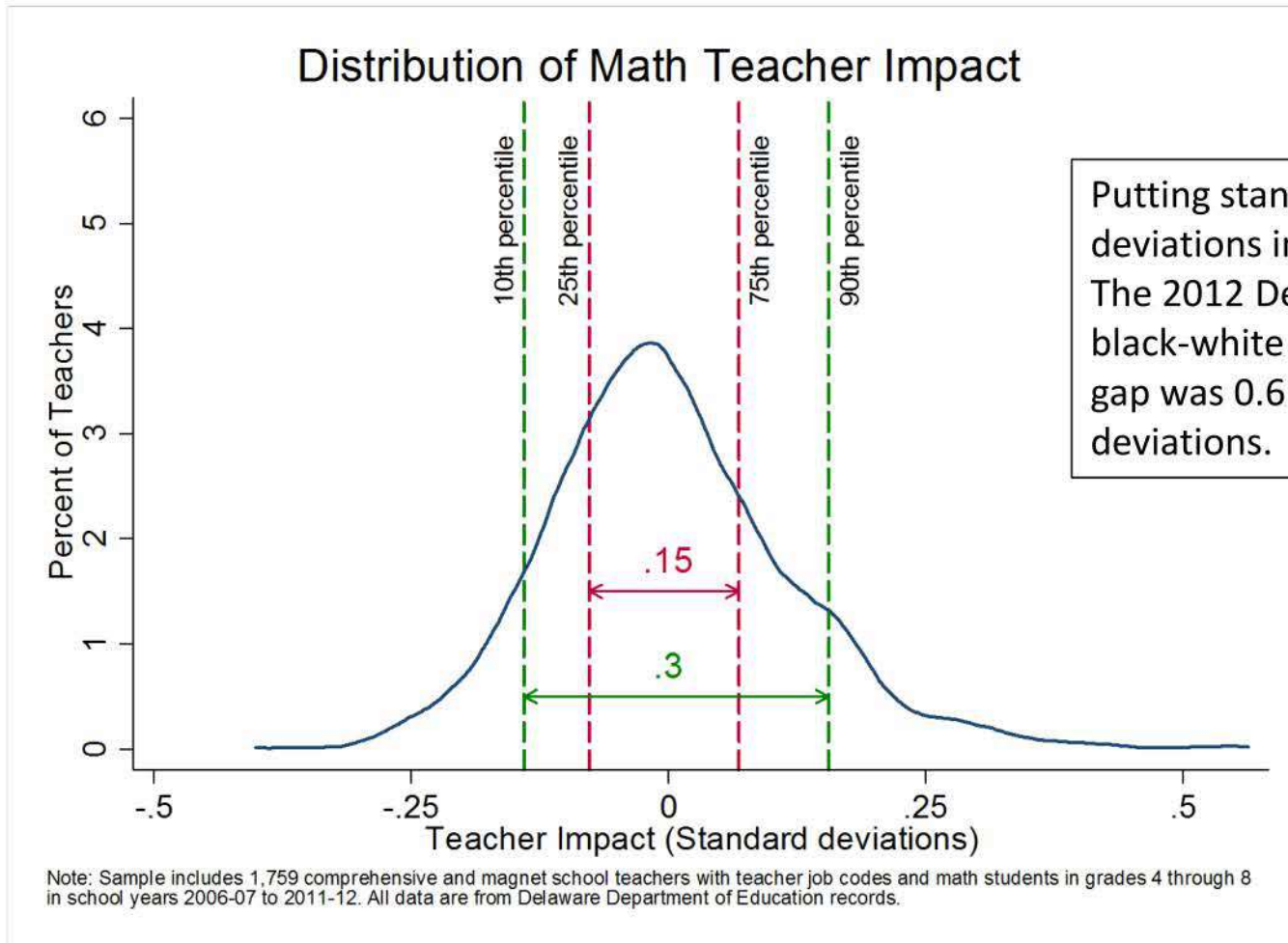




# EVALUATION

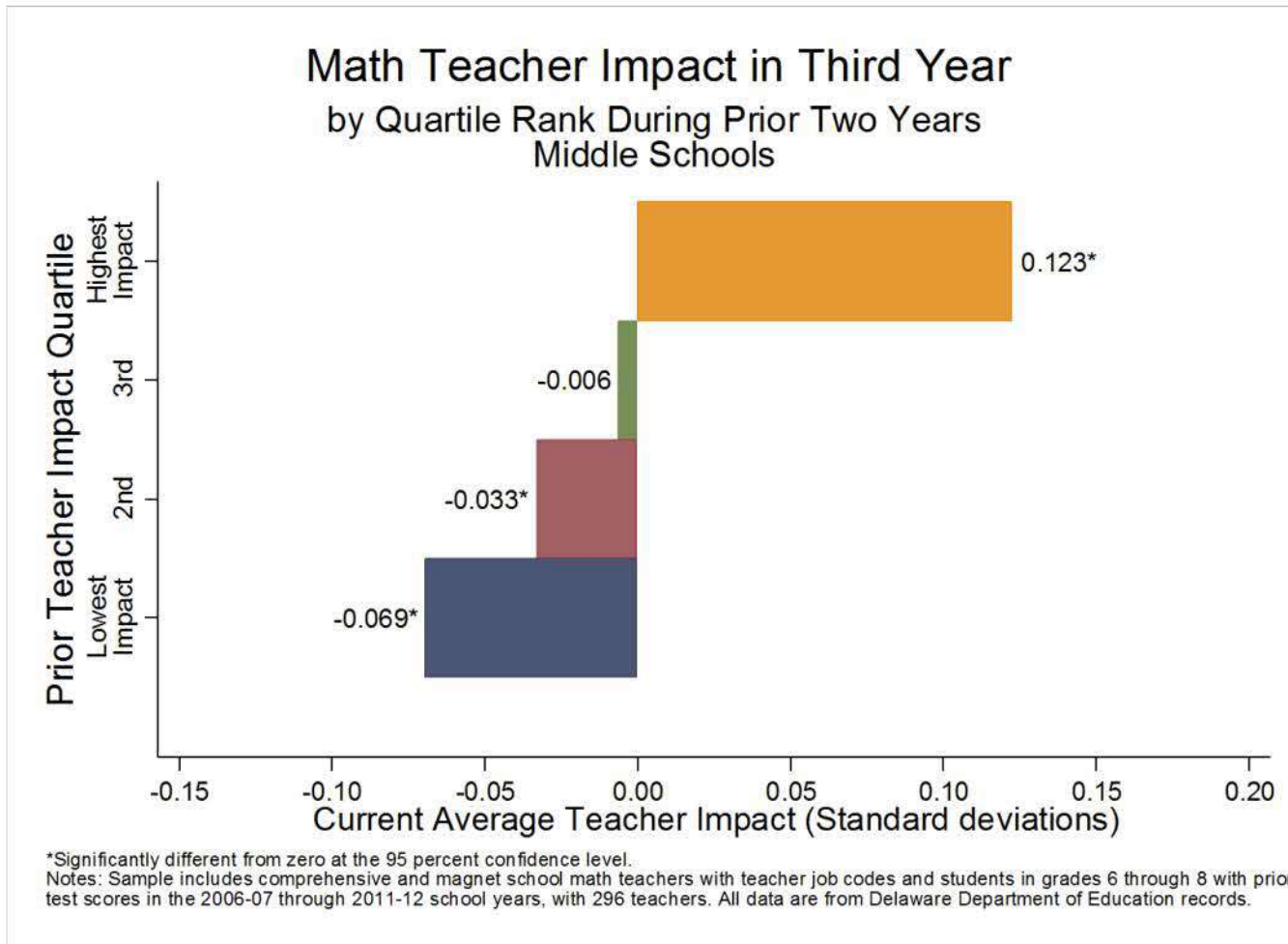


# Teacher impact on student achievement varies widely across the state



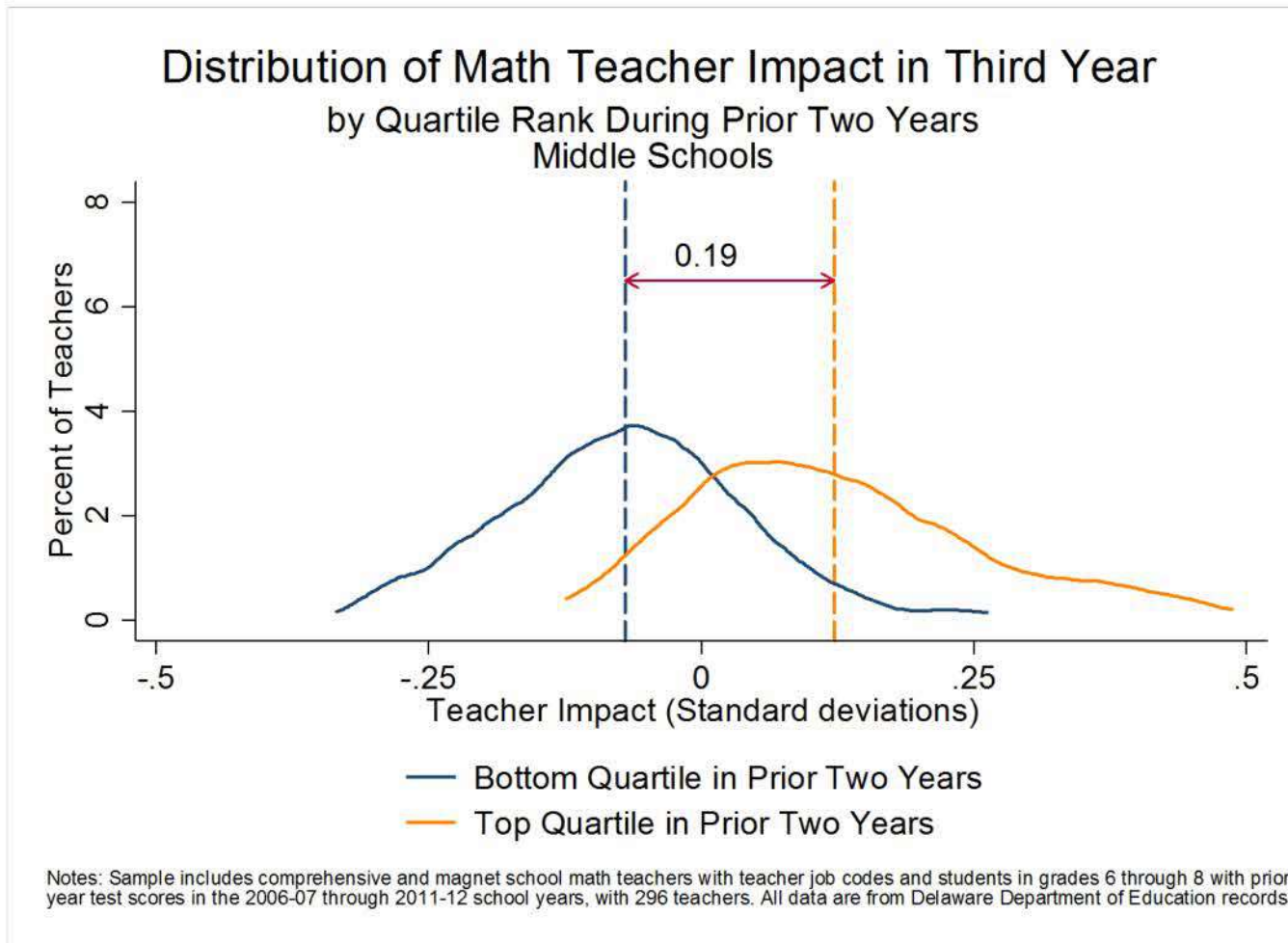


# On average, a math teacher's impact on student achievement is predictive of future impact





## Nonetheless, there is movement between impact groups

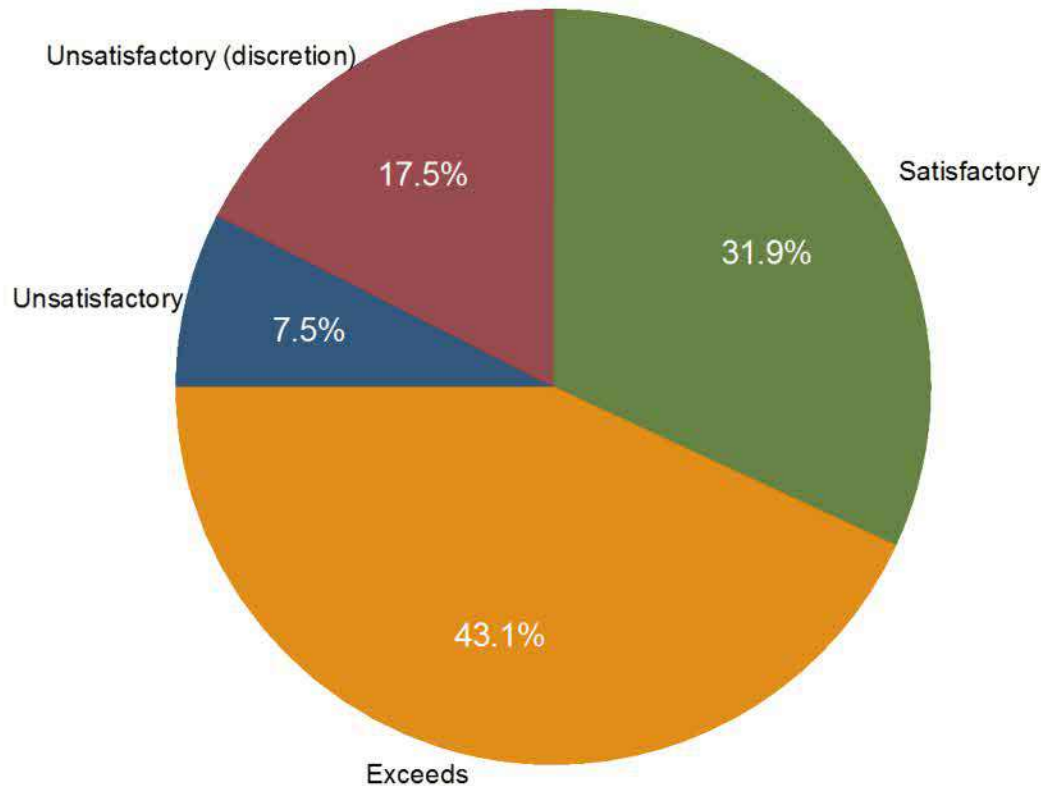






## In 2011-12, among teachers of tested subjects participating in Delaware's new teacher evaluation system, more than two in five were rated "Exceeds Expectations"

2011-12 Pilot Year Component V Ratings



Notes: Sample includes 2,684 unique teachers with 2011-12 Delaware Department of Education Component V ratings and class sizes of 10 or more. Ratings are based on Delaware Department of Education Component V teacher-student links for Math and English/Language Arts. All data are from Delaware Department of Education records.

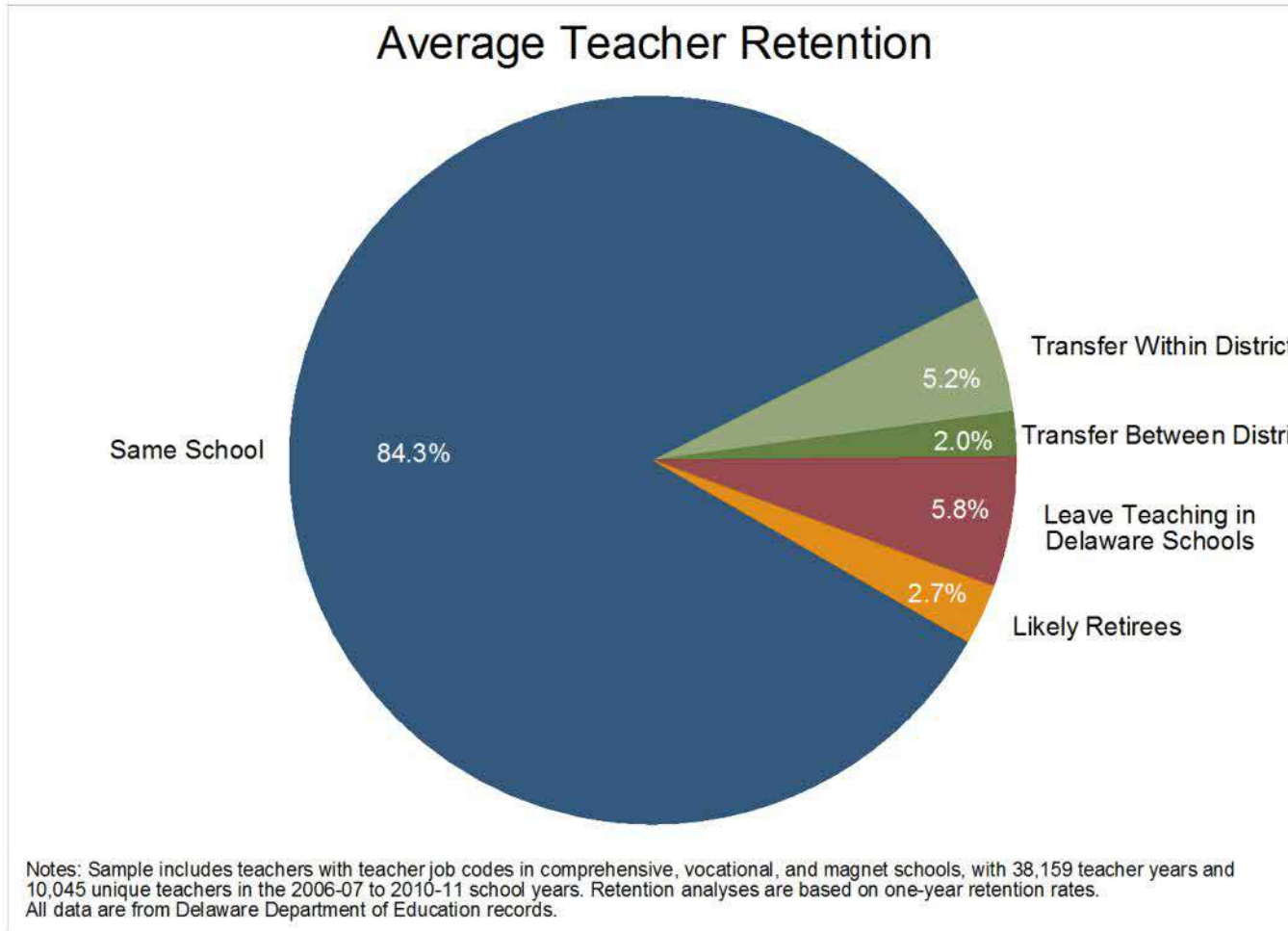




# RETENTION/TURNOVER

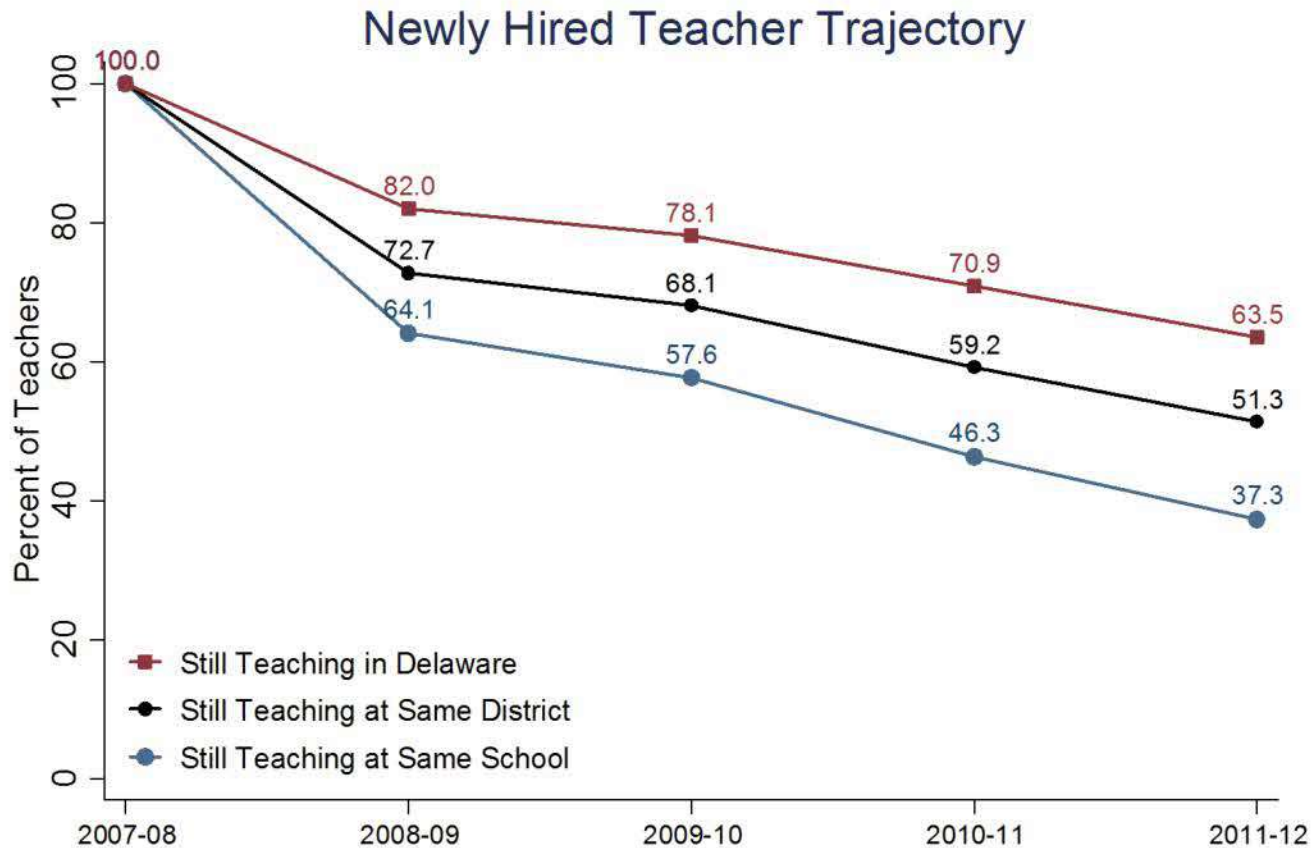


# More than 15 percent of teachers do not continue teaching in the same school in the following year





# A large share of newly hired teachers leave teaching in Delaware within four years

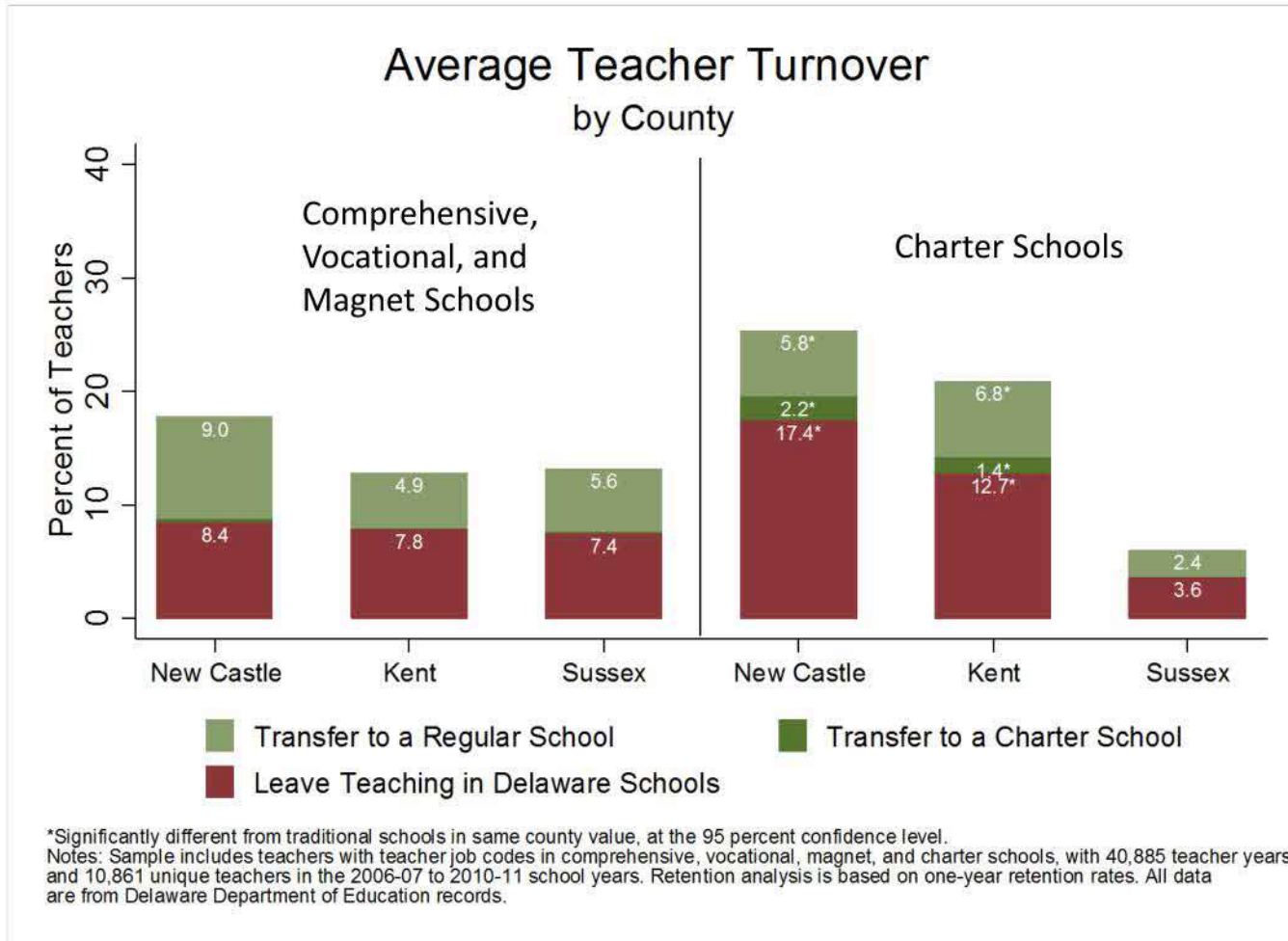


Notes: Sample includes 821 comprehensive, vocational, charter, and magnet school teachers with teacher job codes in the 2007-08 school year. All data are from Delaware Department of Education records.



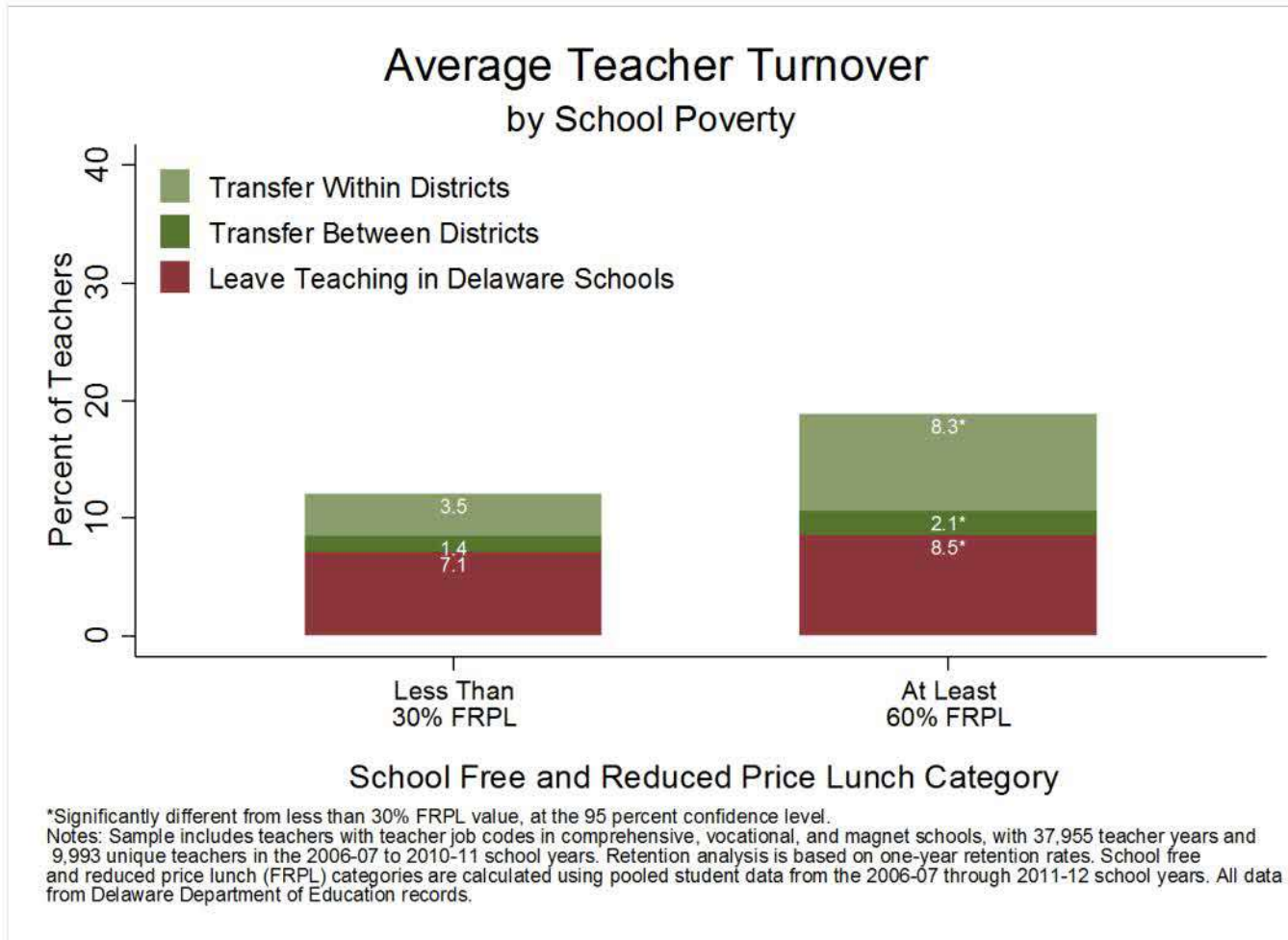


# Charter schools tend to have higher turnover than traditional schools





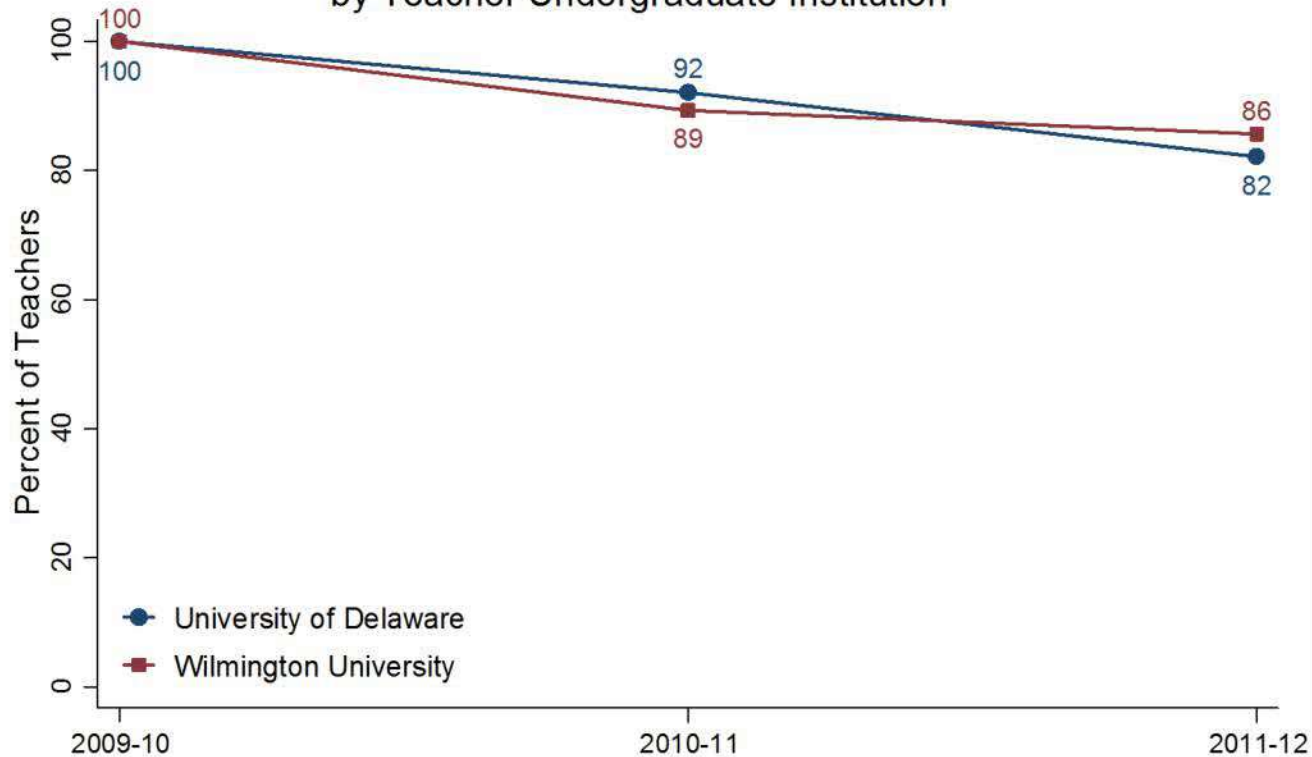
# High-poverty schools have higher rates of teacher turnover





# Retention trajectories are similar for newly hired teachers graduating from different programs

Newly Hired Early-Career Teachers Still Teaching in Delaware by Teacher Undergraduate Institution



Notes: Sample includes 208 teachers with five or fewer years of experience and teacher job codes in comprehensive, vocational, charter, and magnet schools, in the 2009-10 school year. All data are from Delaware Department of Education records.

