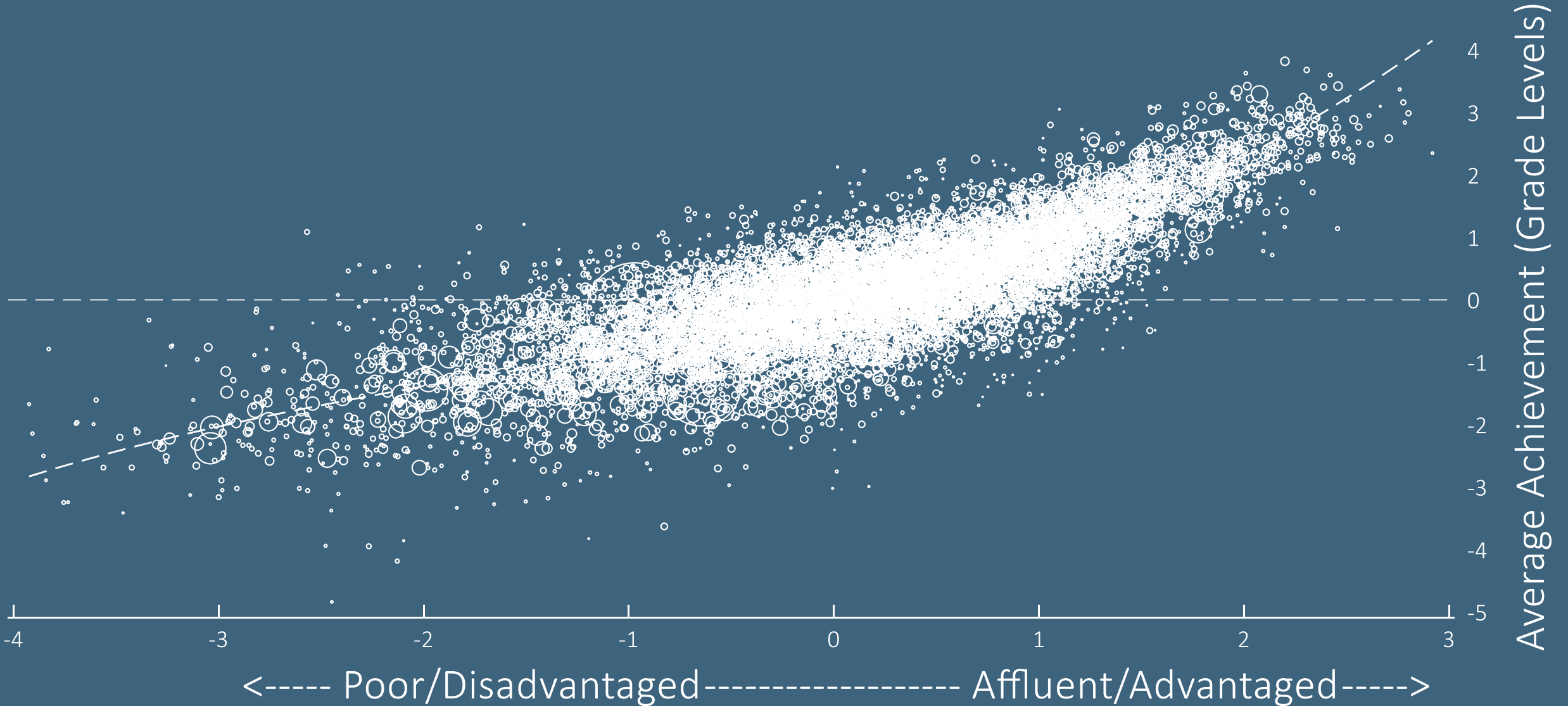


race, class, and educational opportunity in the U.S.

sean f. reardon
stanford university
september, 2019

Academic Achievement and Socioeconomic Status

US School Districts, 2009-2016



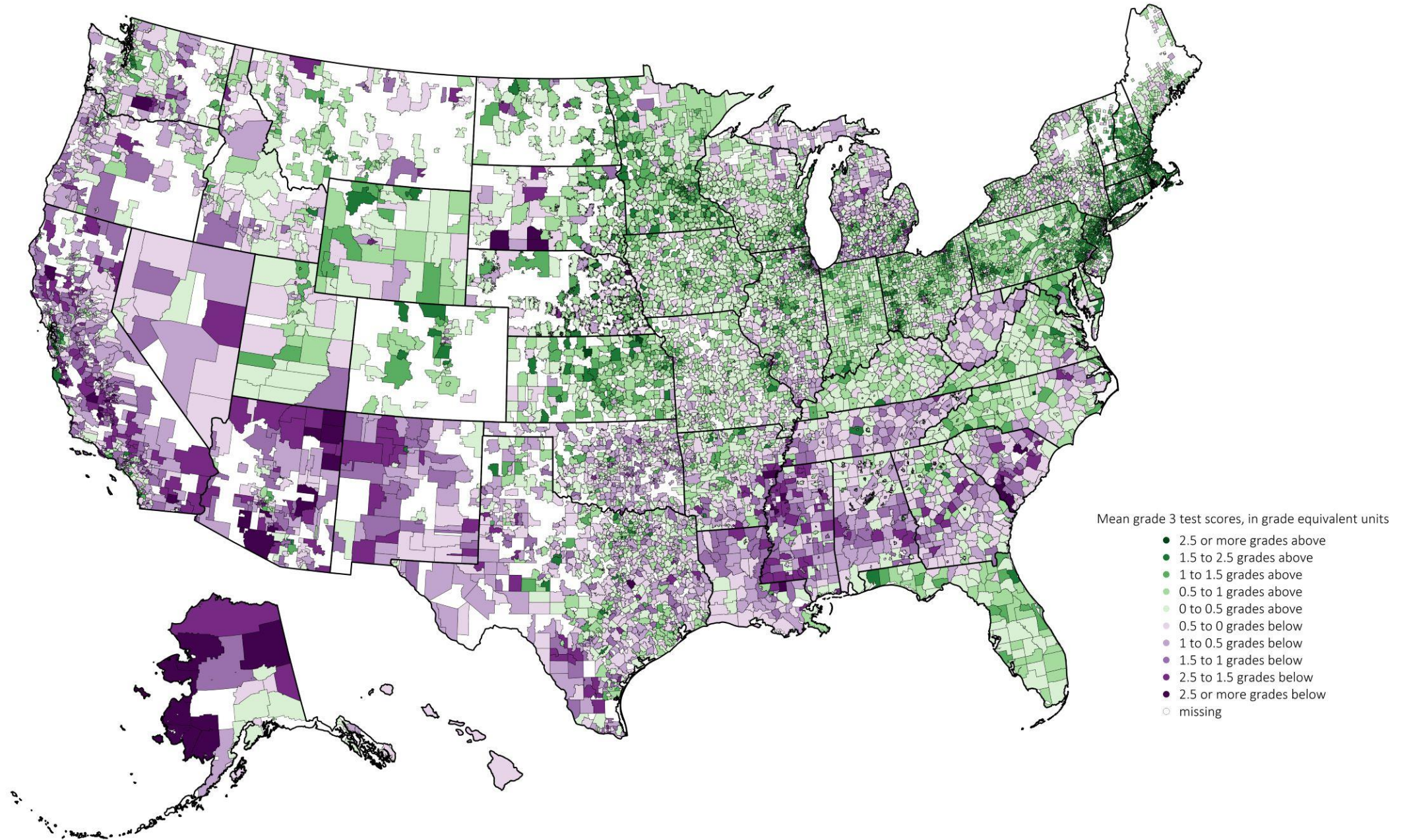
What role does schooling play in educational inequality?

- Three views:
 - Schools are “the great equalizer”
 - Schools produce and exacerbate inequality
 - Schools have little effect on inequality; schooling outcomes simply mirror larger social inequalities

What do average test scores tell us about educational opportunity?

1. Average test scores differences are not solely the result of differences in schools; they are the total result of children's home, neighborhood, pre-school, after-school, and K-12 schooling experiences.
2. They are not measures of intelligence, but of performance (so are affected by what students have been taught and have learned and how motivated they are to perform on standardized tests).
3. Test performance is not the only educational outcome we care about; but it is a reasonable proxy for the extent of opportunity.

Average Third Grade Test Scores (Math and Reading Averaged), US Public School Districts, 2009-2016

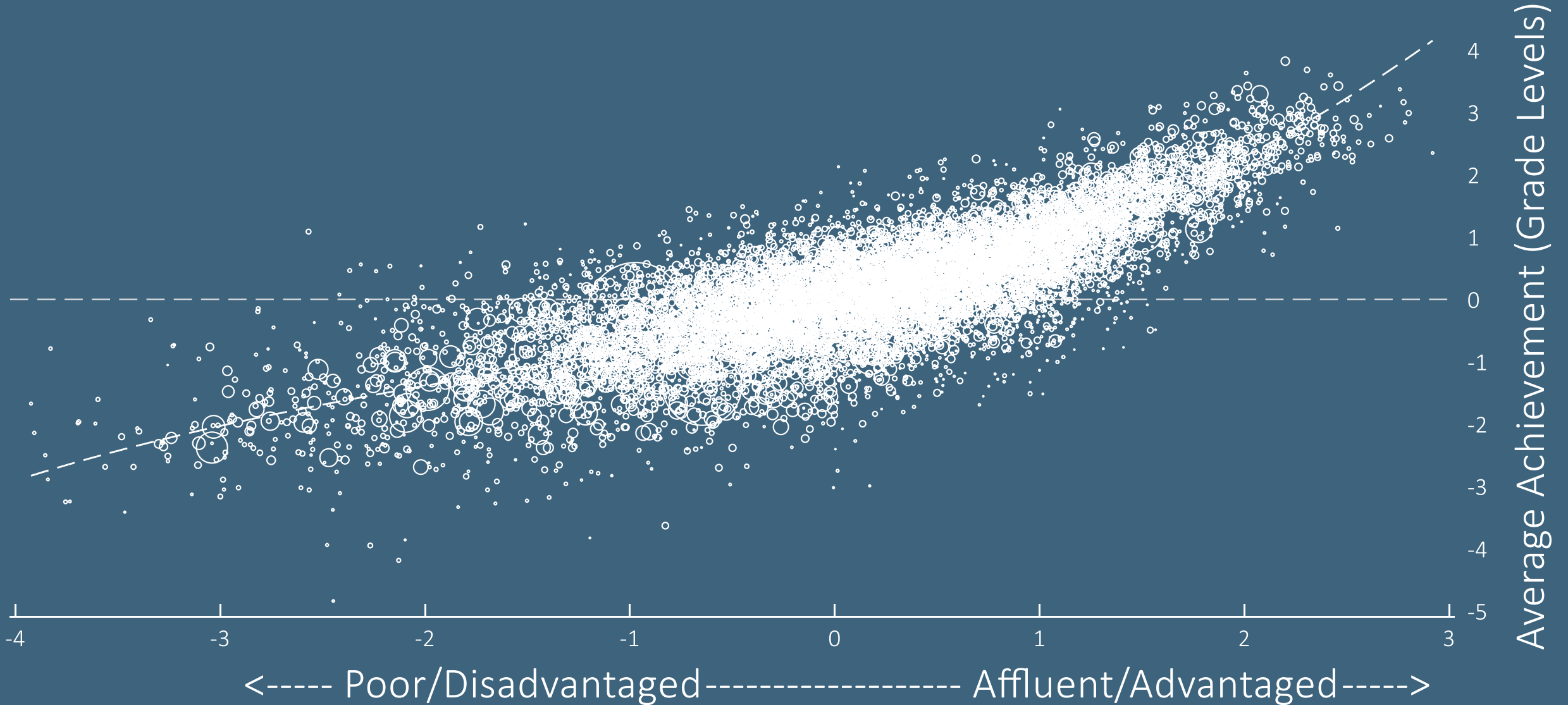


Data (<http://seda.stanford.edu>)

- Average district-level standardized test scores (on state accountability tests)
 - 13,000+ geographic school districts (including local charter schools)
 - Grades 3-8
 - Math & Reading/English Language Arts (ELA)
 - 2009-2016 (13 cohorts of students entering kindergarten in 2000 – 2012)
 - By race/ethnicity and economic disadvantage
 - Based on ~330,000,000 test scores
 - Scores are placed on common scale across states, years, and grades
- Demographic data
 - Family characteristics (of families with children in public schools)
 - From American Community Survey (ACS)

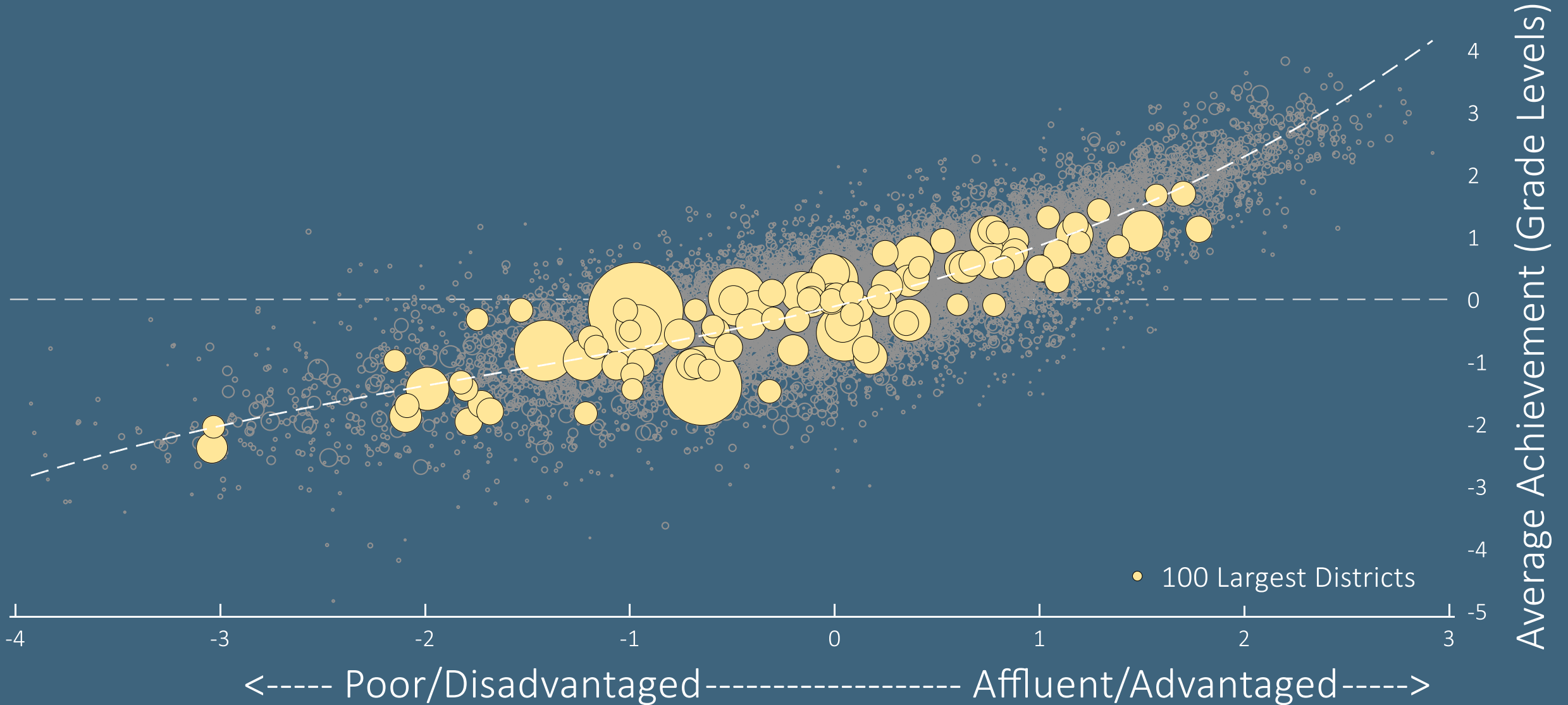
Academic Achievement and Socioeconomic Status

US School Districts, 2009-2016



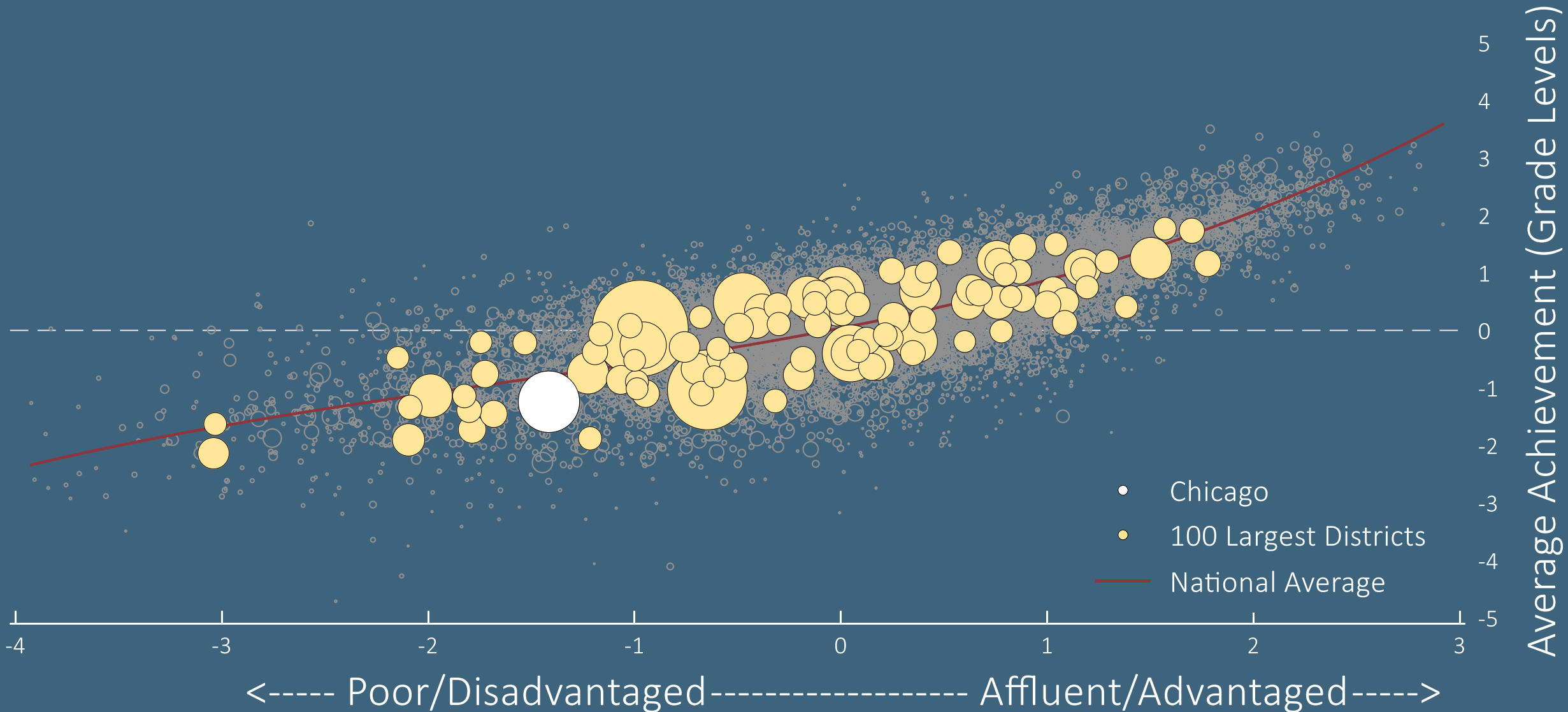
Academic Achievement and Socioeconomic Status

100 Largest US School Districts, 2009-2016



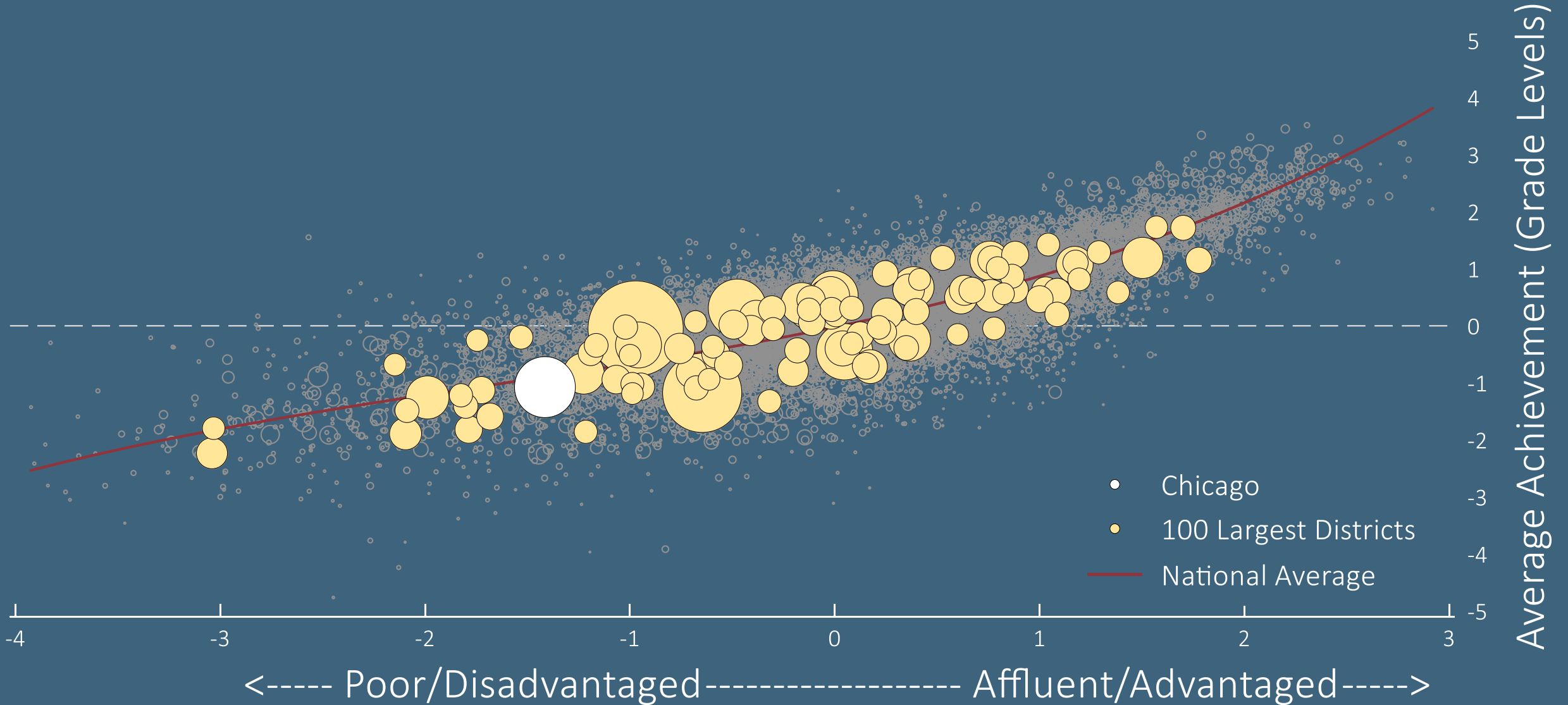
Academic Achievement and Socioeconomic Status, Grade 3

US School Districts, 2009-2016



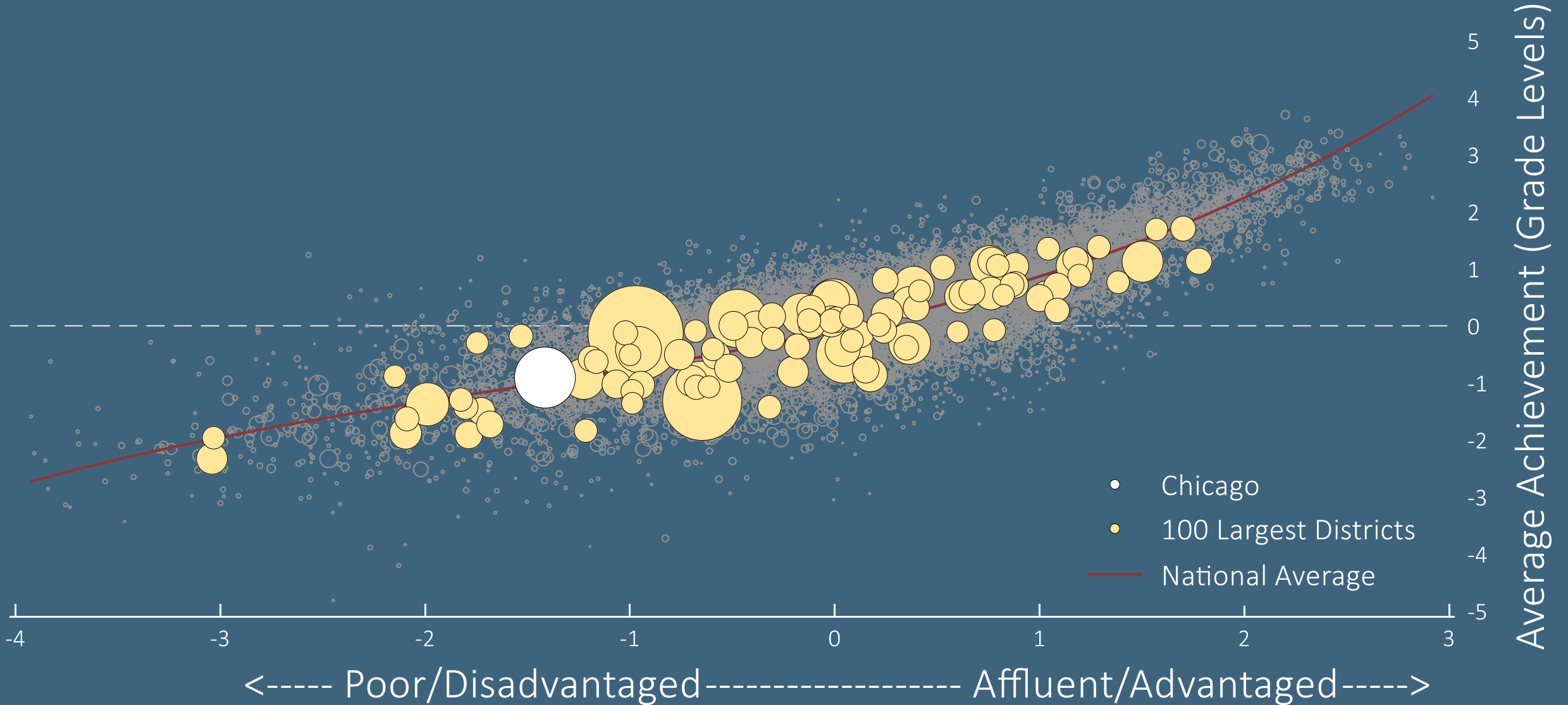
Academic Achievement and Socioeconomic Status, Grade 4

US School Districts, 2009-2016



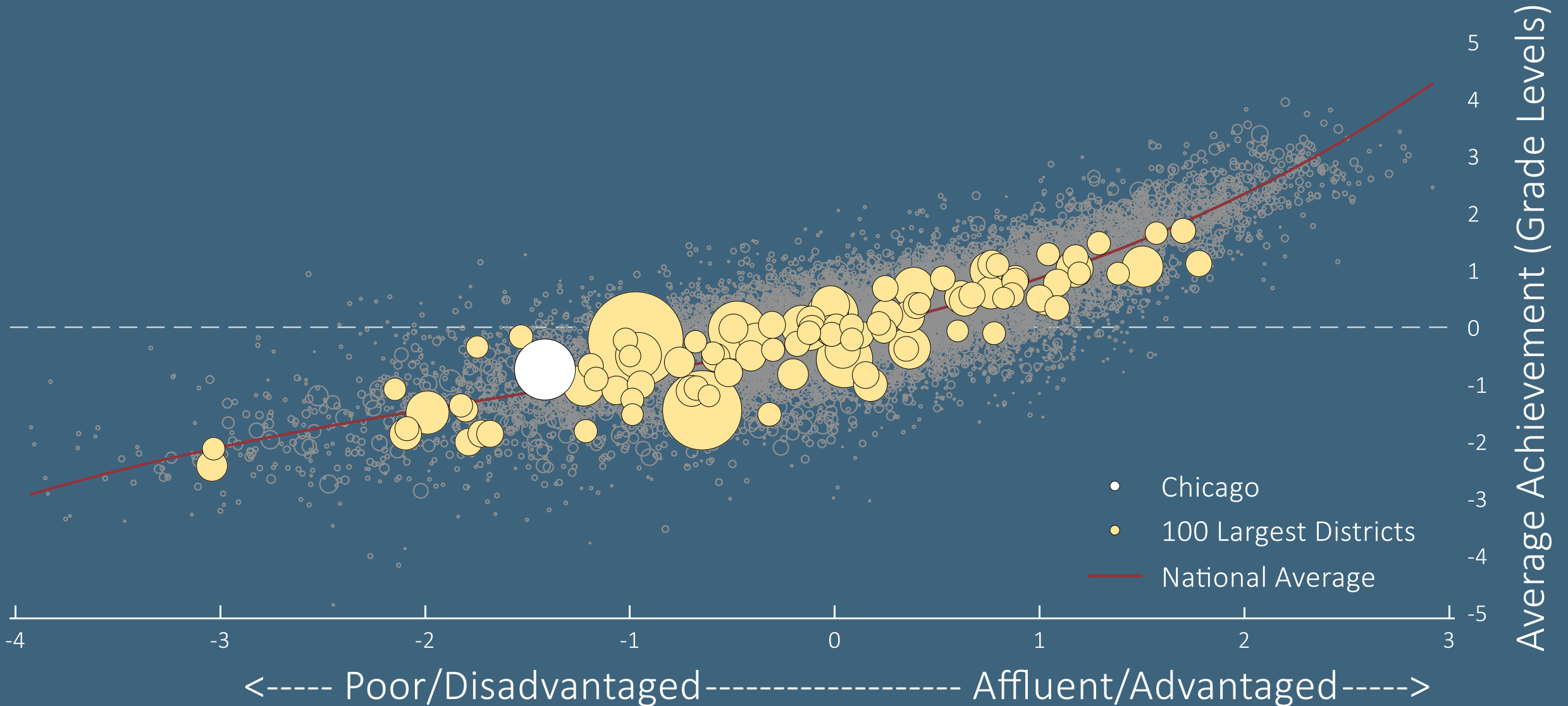
Academic Achievement and Socioeconomic Status, Grade 5

US School Districts, 2009-2016



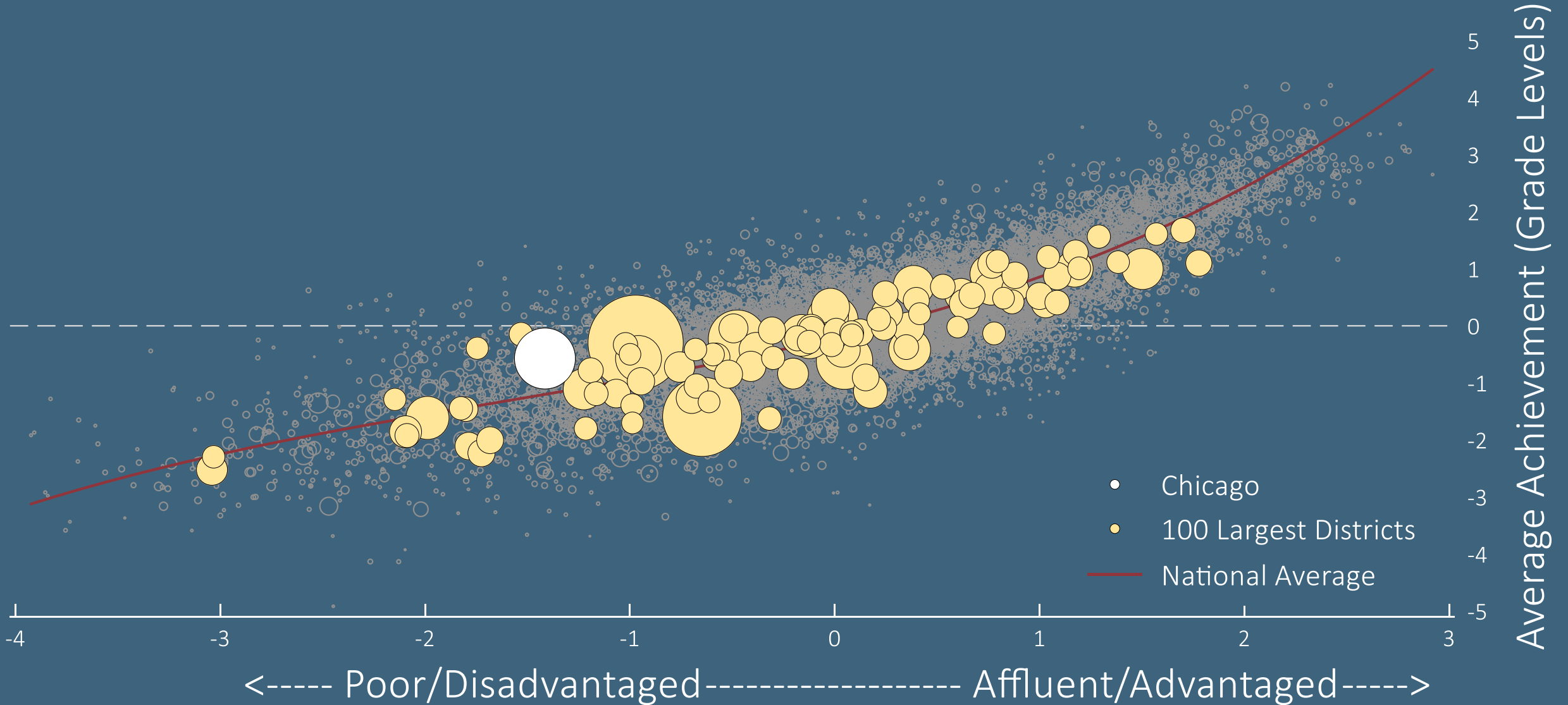
Academic Achievement and Socioeconomic Status, Grade 6

US School Districts, 2009-2016



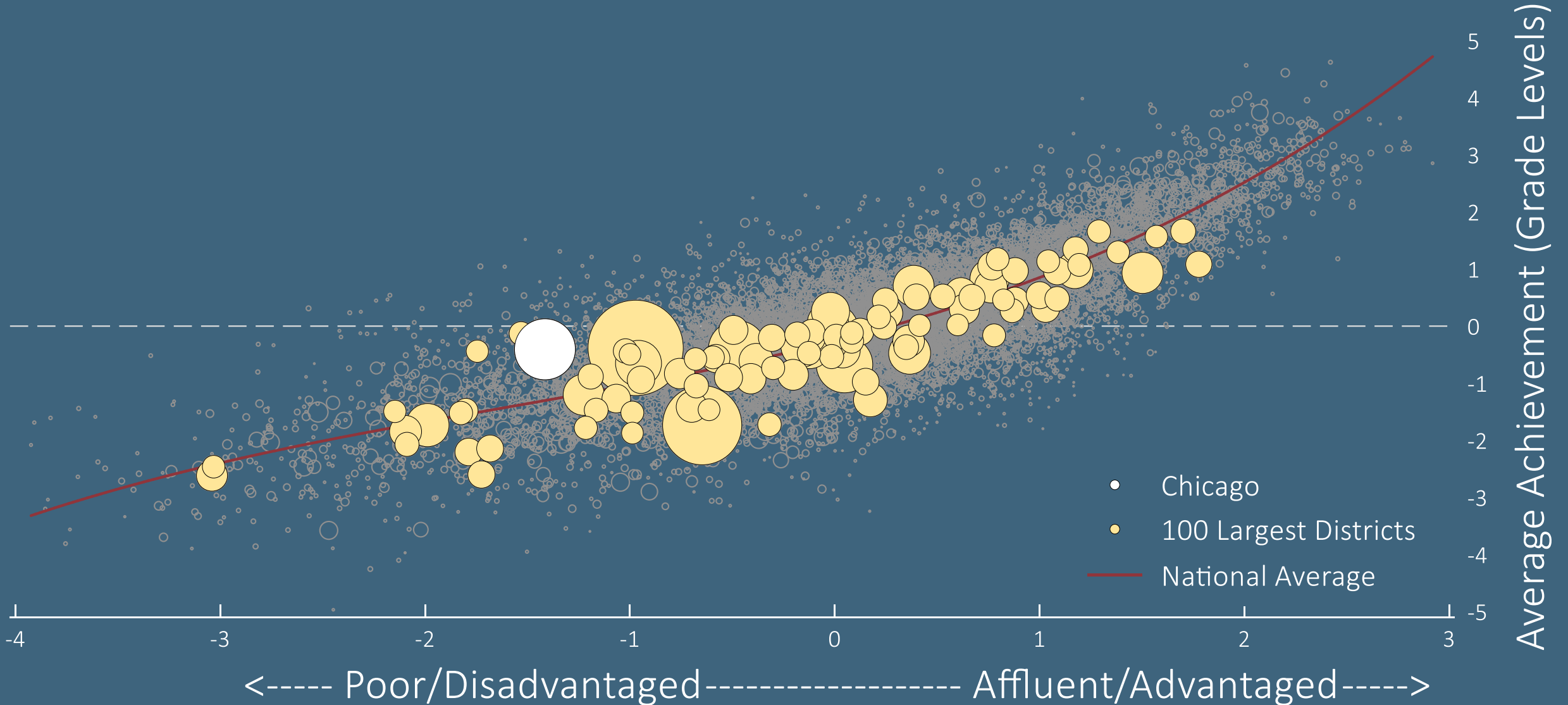
Academic Achievement and Socioeconomic Status, Grade 7

US School Districts, 2009-2016



Academic Achievement and Socioeconomic Status, Grade 8

US School Districts, 2009-2016

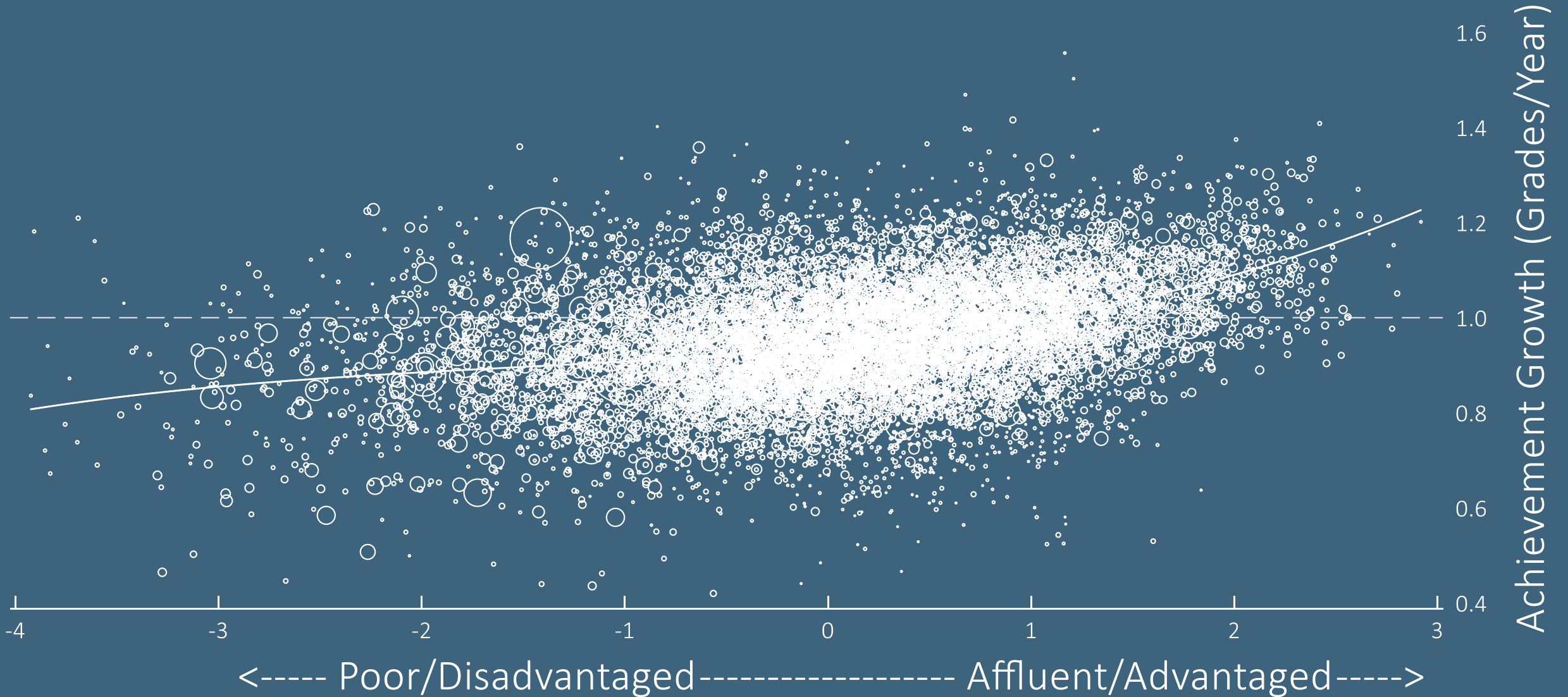


Interpreting average test scores

- Average scores in grade 3 describe opportunities prior to 3rd grade (early childhood experiences and early elementary school experiences)
- The average growth rate of scores from grades 3-8 largely reflects opportunities provided by schools

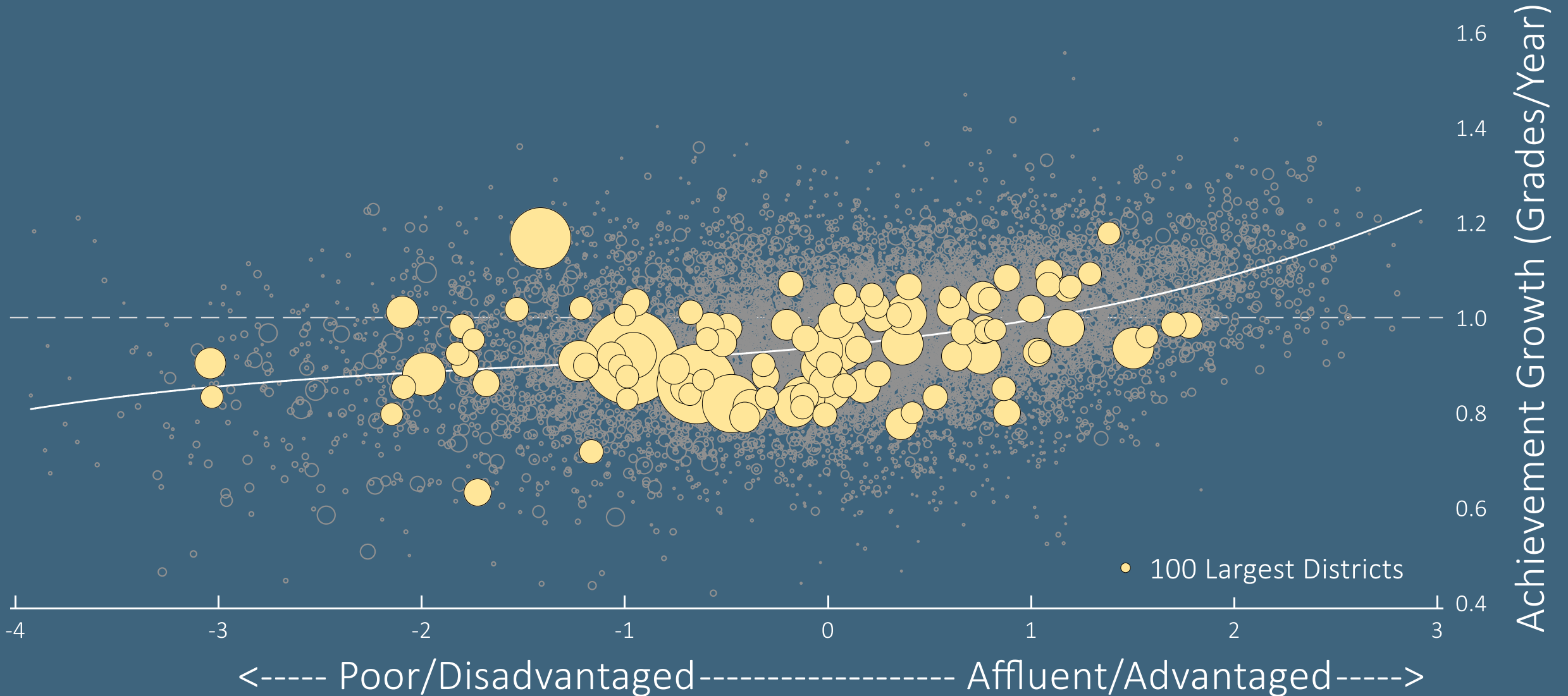
Academic Achievement Growth Rates and Socioeconomic Status

US School Districts, 2009-2016



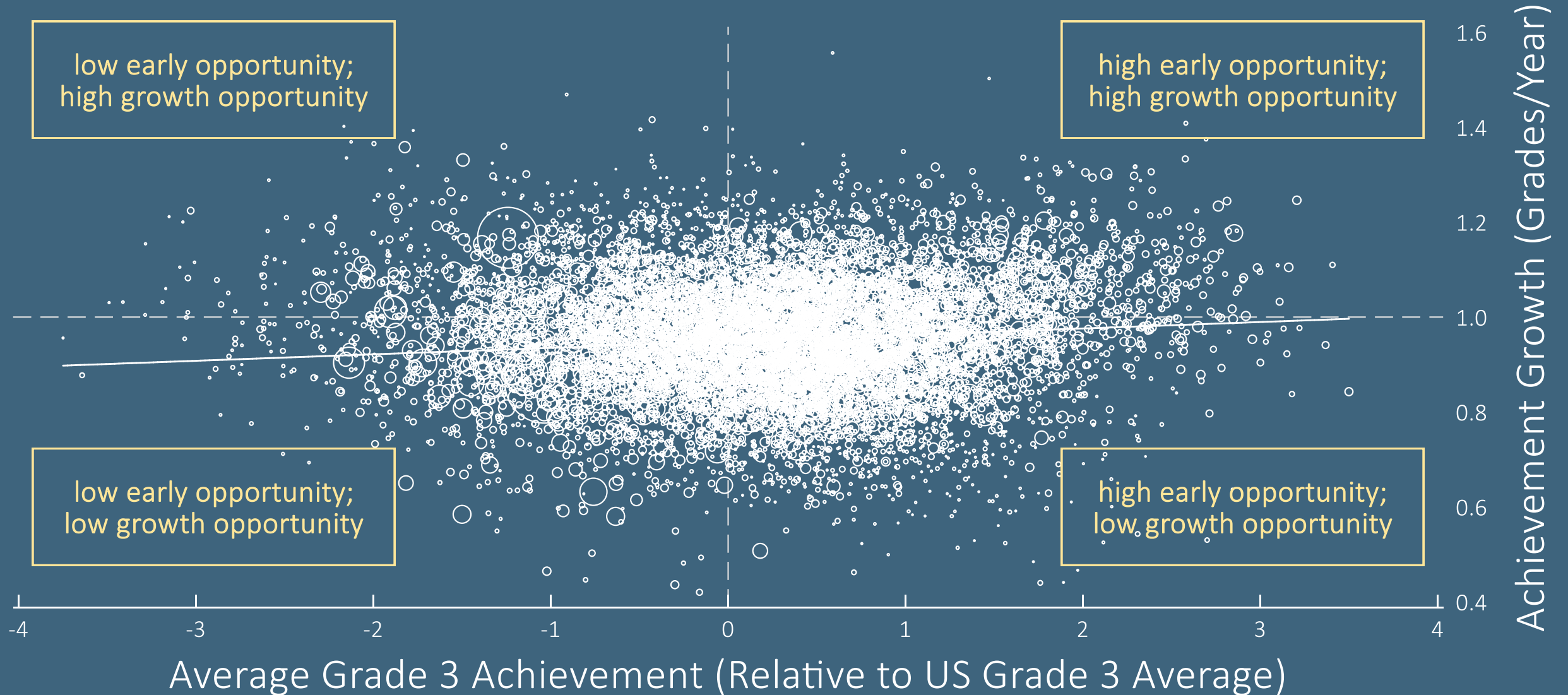
Academic Achievement Growth Rates and Socioeconomic Status

100 Largest US School Districts, 2009-2016



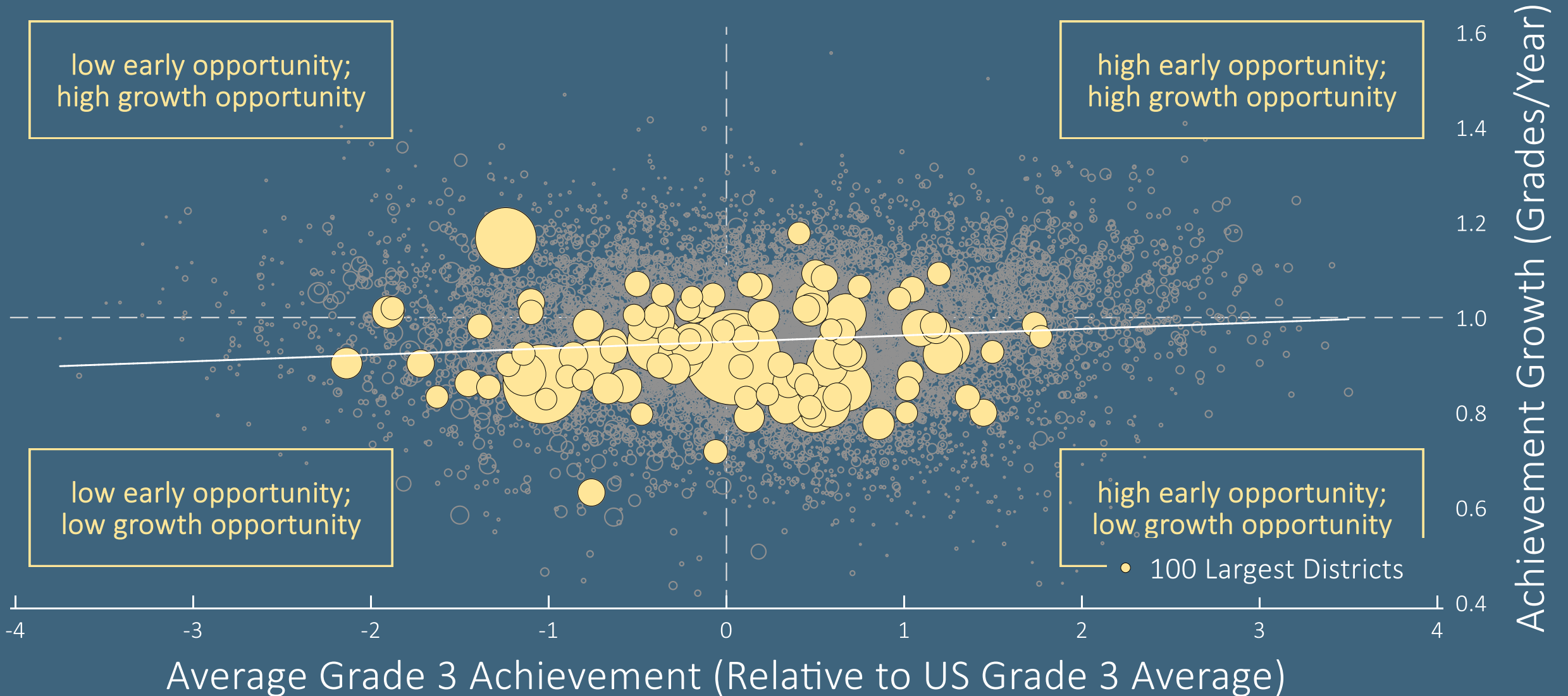
Academic Achievement Growth Rates by Grade 3 Achievement

US School Districts, 2009-2016



Academic Achievement Growth Rates by Grade 3 Achievement

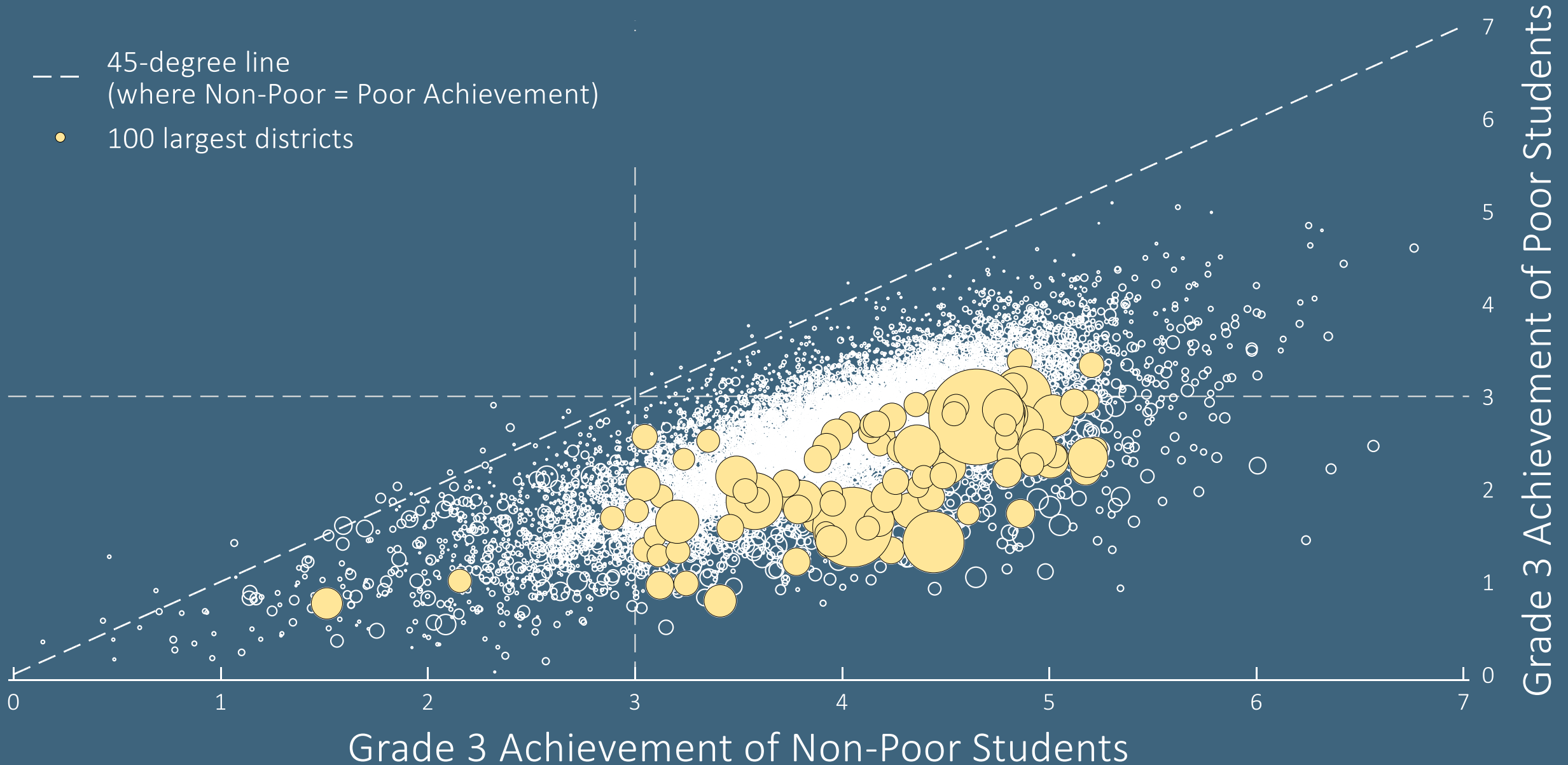
US School Districts, 2009-2016



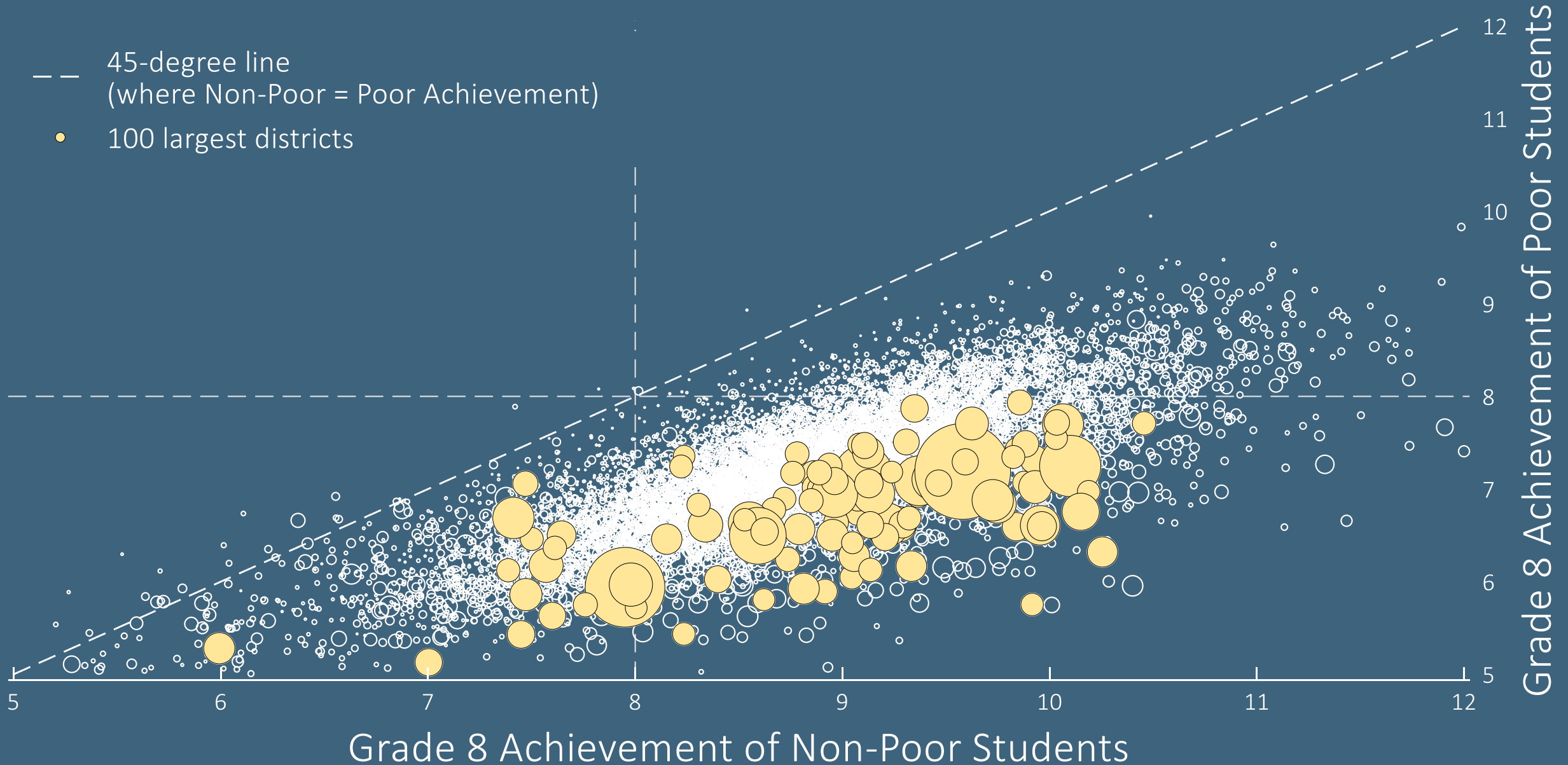
How does educational opportunity vary within communities?

- Do local communities provide unequal opportunities to different groups of students?
- Do these differences occur because of differences in school-based opportunities?

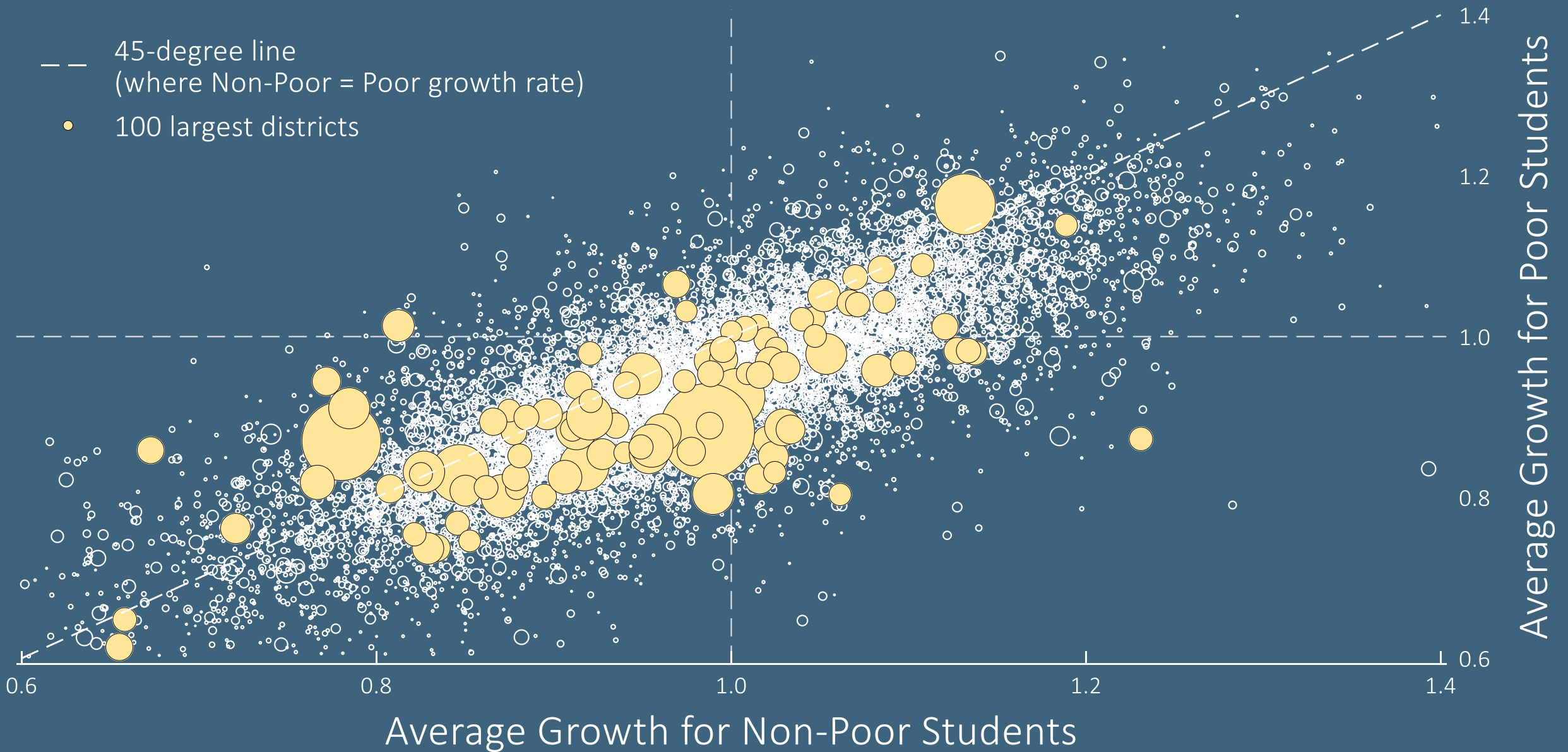
Average Grade 3 Achievement, Poor and Non-Poor Students



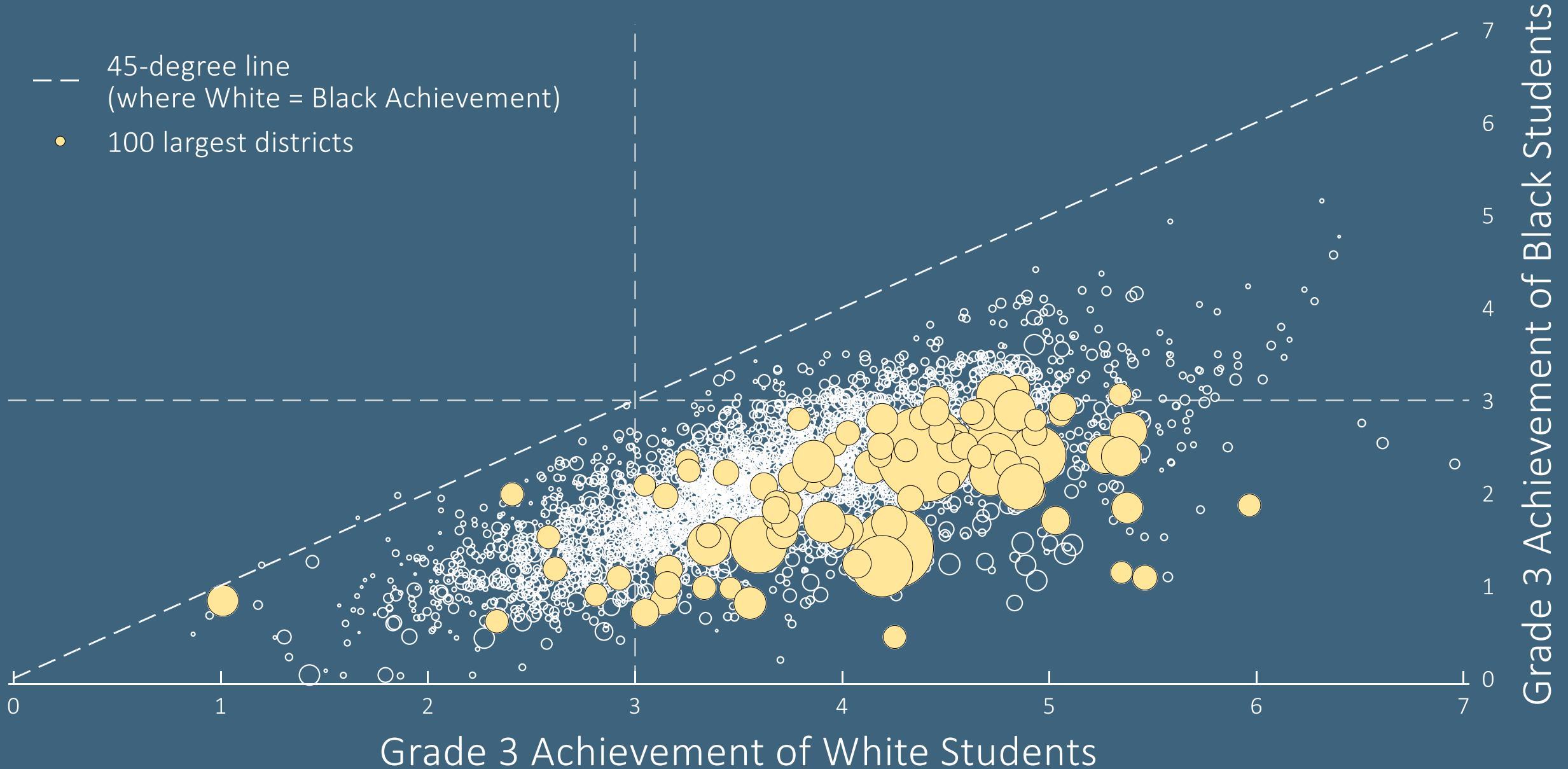
Average Grade 8 Achievement, Poor and Non-Poor Students



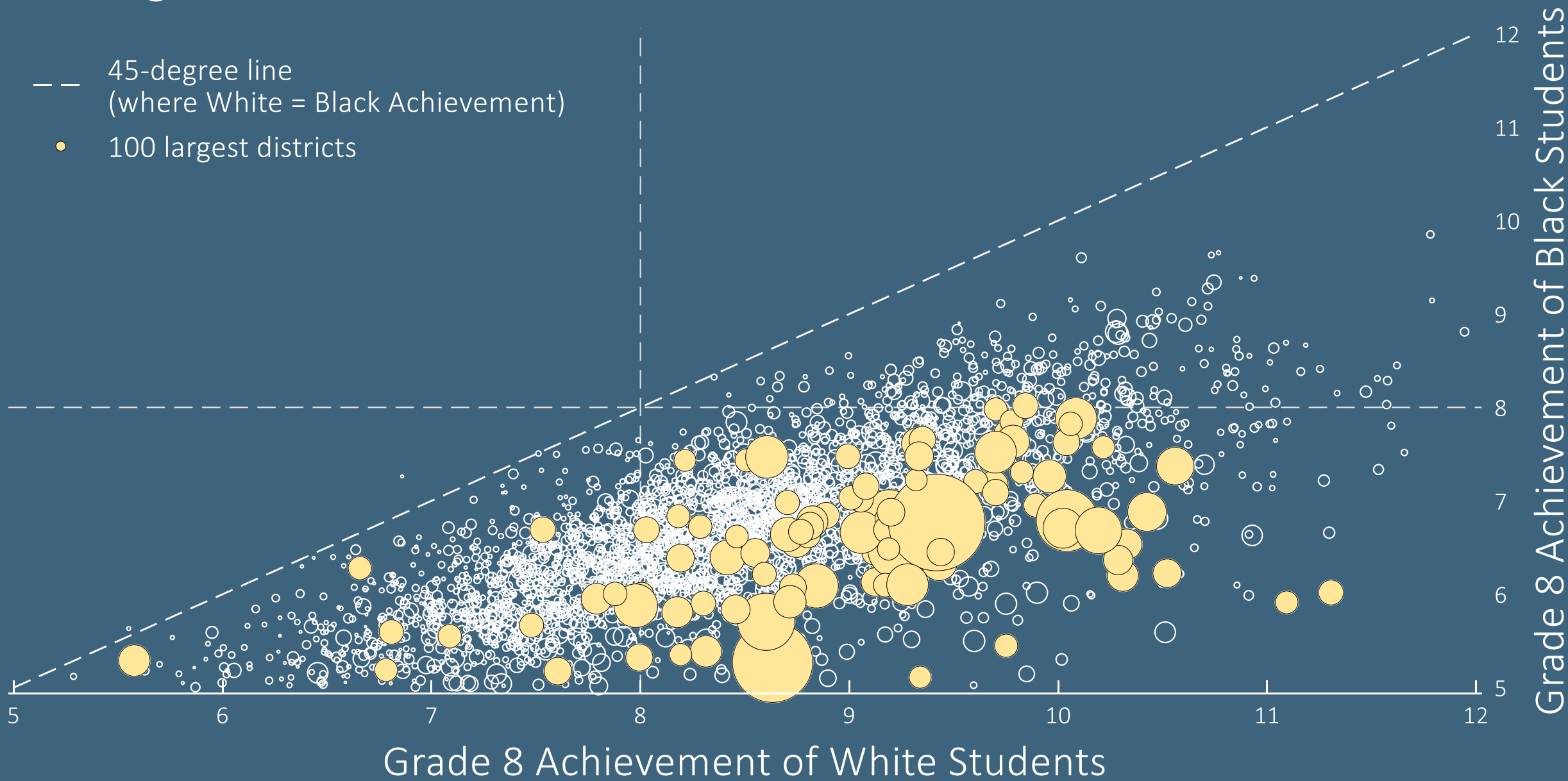
Average Achievement Growth, Poor and Non-Poor Students



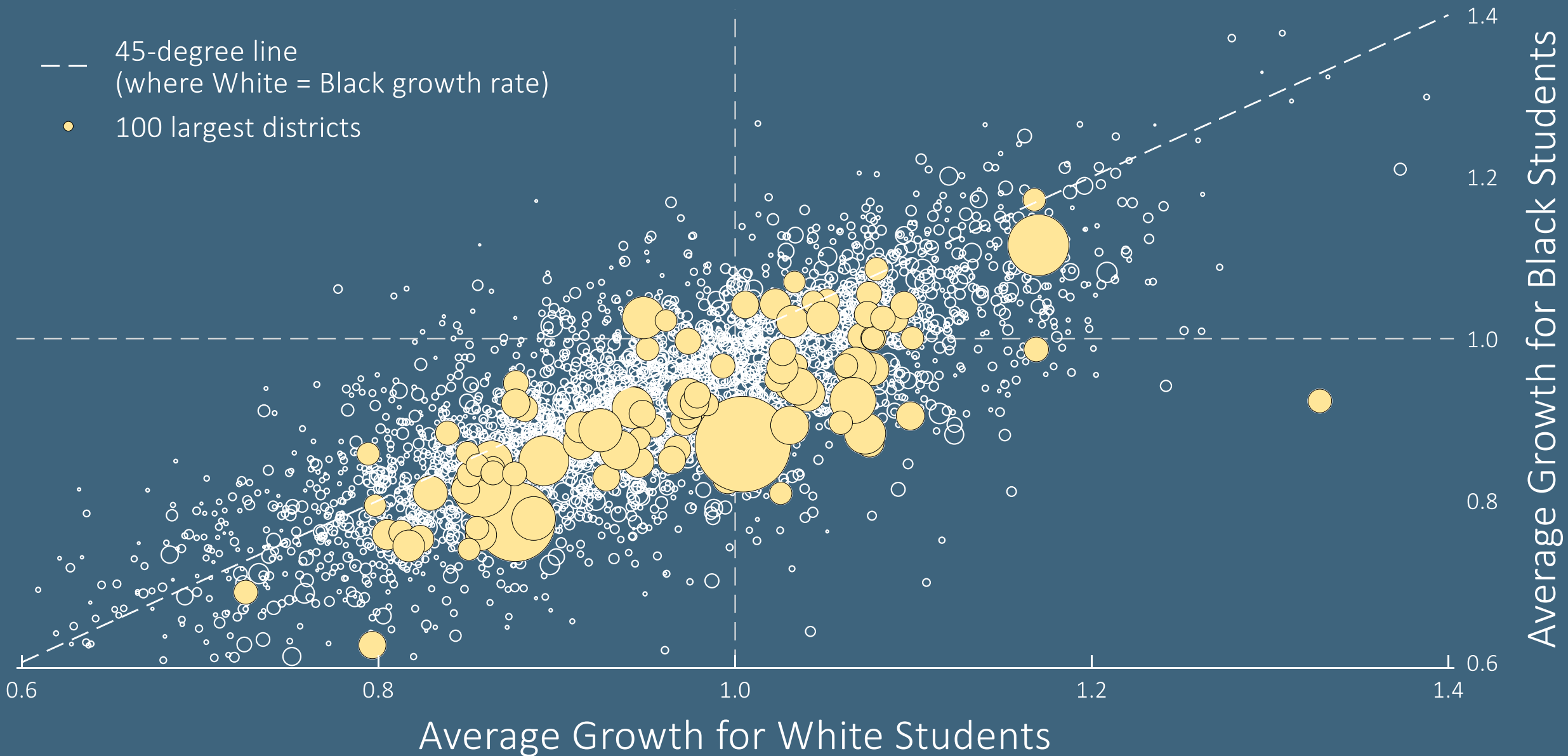
Average Grade 3 Achievement, White and Black Students



Average Grade 8 Achievement, White and Black Students

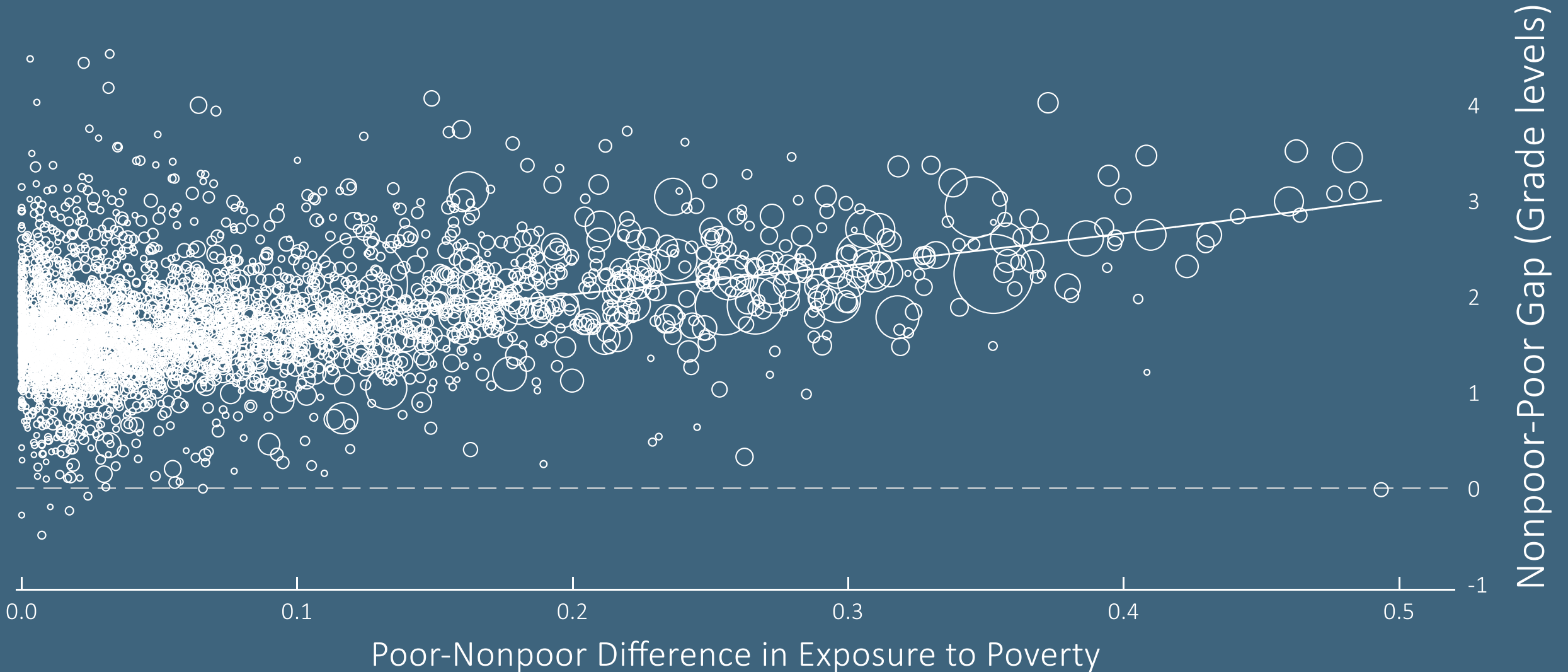


Average Achievement Growth, White and Black Students



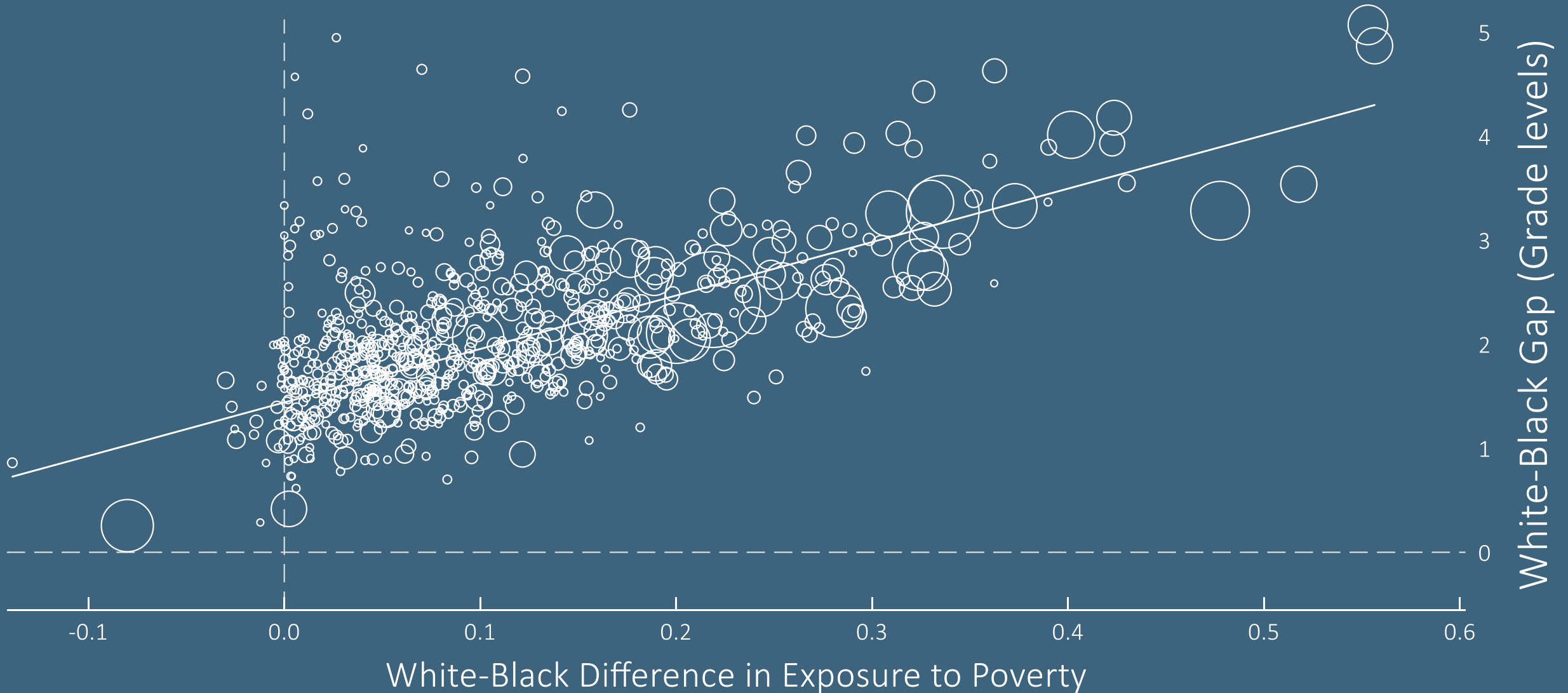
Poor-Nonpoor Achievement Gap, by Economic Segregation

All US School Districts with at least 200 Students/Grade, 2009-2016



White-Black Achievement Gap, by White-Black Segregation

All US School Districts with at least 100 Black & 100 White Students/Grade, 2009-2016



White-Black Achievement Growth Rate Gap, by White-Black Segregation

All US School Districts with at least 100 Black & 100 White Students/Grade, 2009-2016



What role does schooling play in educational inequality?

- It depends on where you are:
 - Schools are equalizing in some places;
 - In other places, schools exacerbate inequality;
 - And in some inequality changes little during the schooling years.
- **Segregation** (economic segregation) is the strongest predictor of how unequally schools provide opportunities

School poverty and academic performance

- These analyses do not identify segregation mechanisms
- They indicate that school poverty is the best proxy for, or is most proximal to, the operative mechanisms of segregation
- Other forms of segregation (residential, racial, between-district) may operate through differential exposure to school poverty
- These results do not imply “peer effects” (though they might): High-poverty schools may be lower-quality for many reasons:
 - hard to attract most skilled teachers;
 - less parental social/political capital,
 - lower peer achievement may affect curriculum/instruction, etc.)

Stanford Education Data Archive (SEDA)

- Available at <http://seda.stanford.edu>
- These data exist thanks to the following people:
 - Ross Santy, Michael Hawes, Marilyn Seastrom, Jennifer Davies (US Dept. of Education)
 - Andrew Ho (Harvard University)
 - Demetra Kalogrides, Kenneth Shores, Ben Shear, Erin Fahle, Richard DiSalvo, Jenny Buontempo (Stanford University)
- Funding support from
 - Institute of Education Sciences
 - Spencer Foundation
 - William T. Grant Foundation
 - Bill and Melinda Gates Foundation
 - Overdeck Family Foundation

for more information:

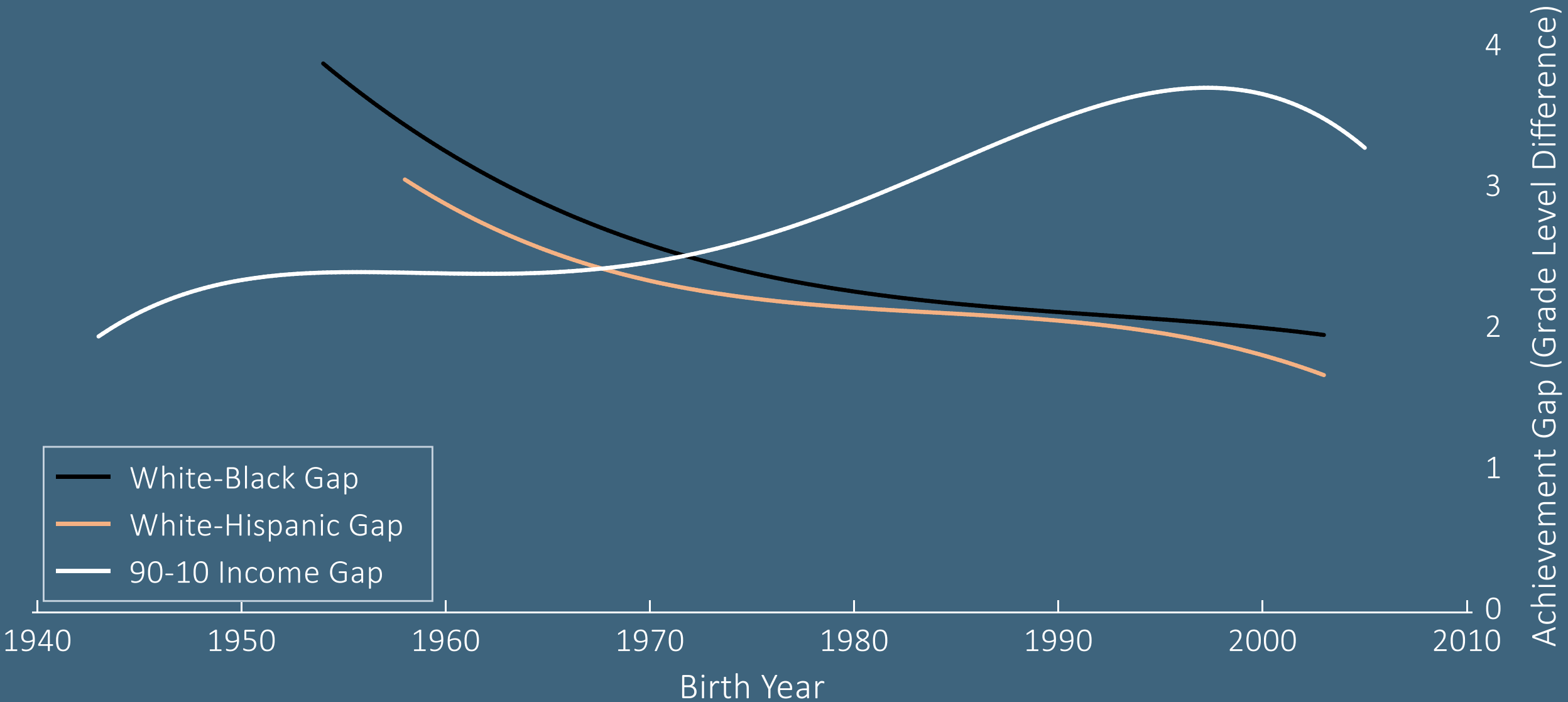
Stanford Education Data Archive (SEDA)
(<https://seda.stanford.edu>)

sean.reardon@stanford.edu

Educational opportunity in historical context

Trends in Racial and Income Achievement Gaps in Reading

All US Schools, 1942-2005

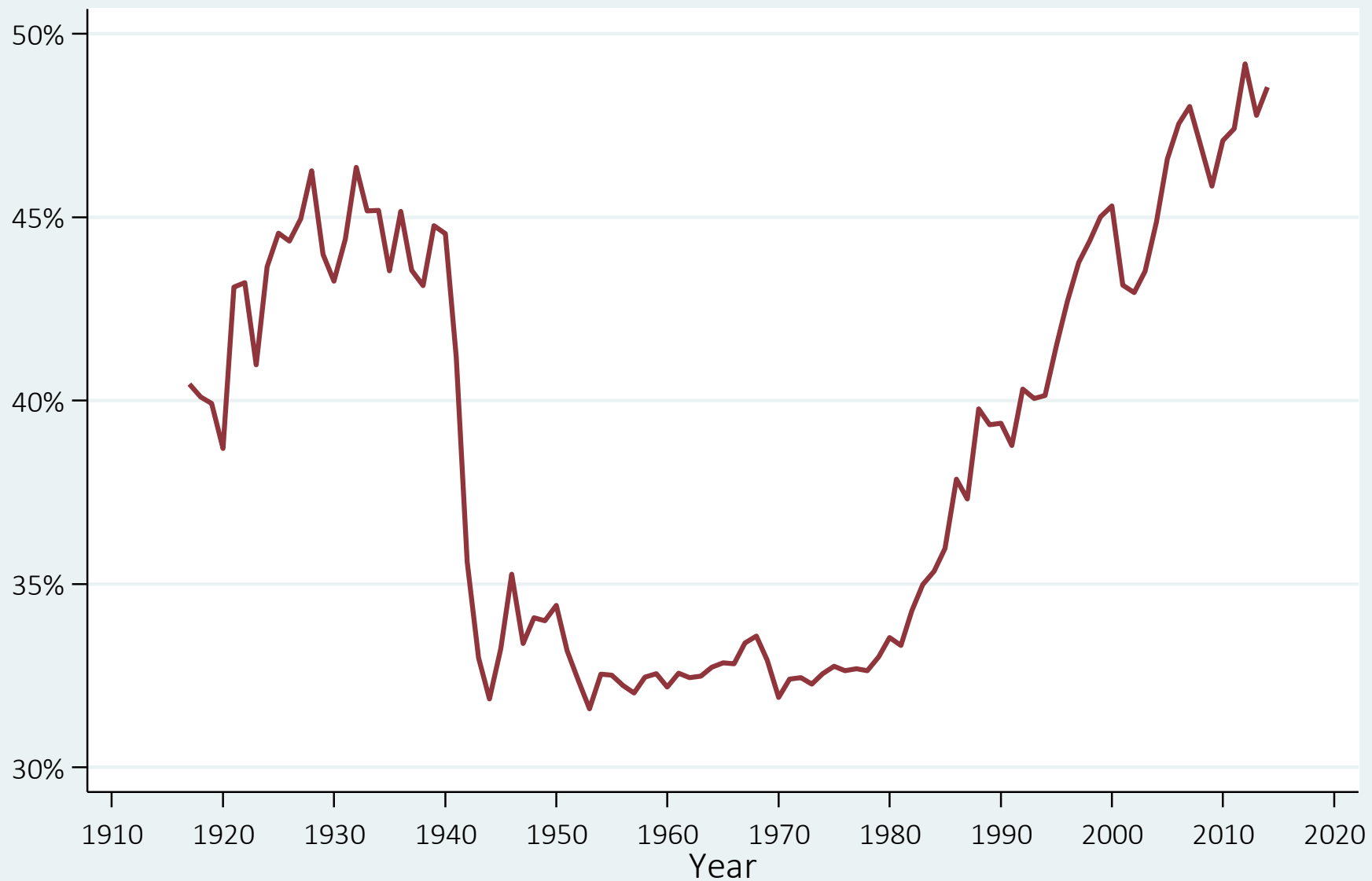


Estimated Quadratic Trends in 90/10 SES Achievement Gaps, by Country Income Level, 1950-2005 Birth Cohorts



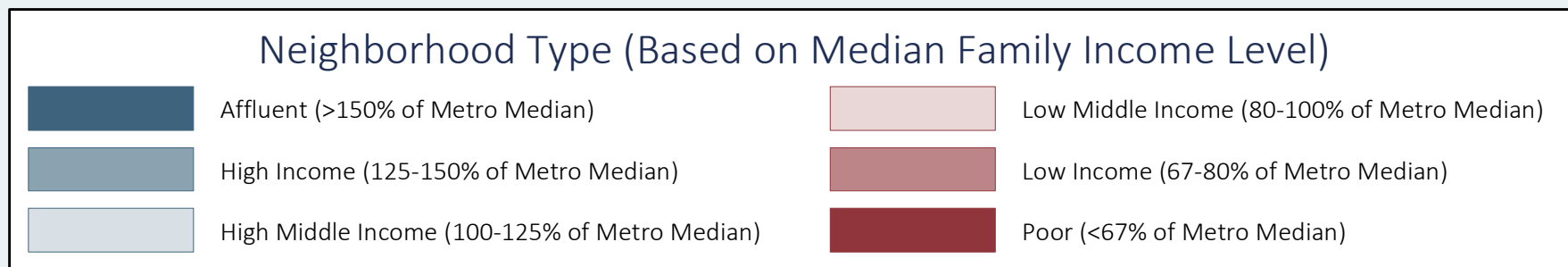
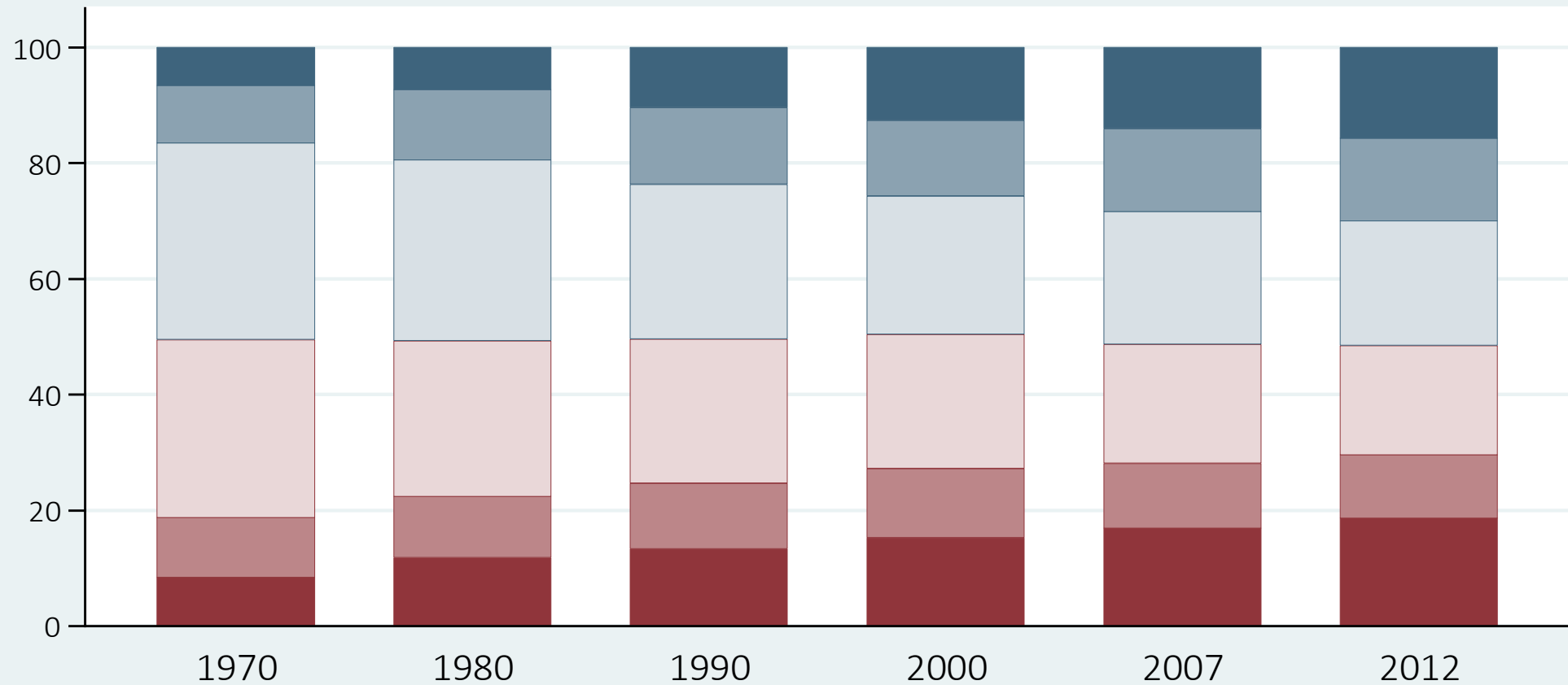
Source: Chmielewski (2019)

Share of Total Income Accruing to 10% Highest Income Families, (Includes Capital Gains), 1917-2014

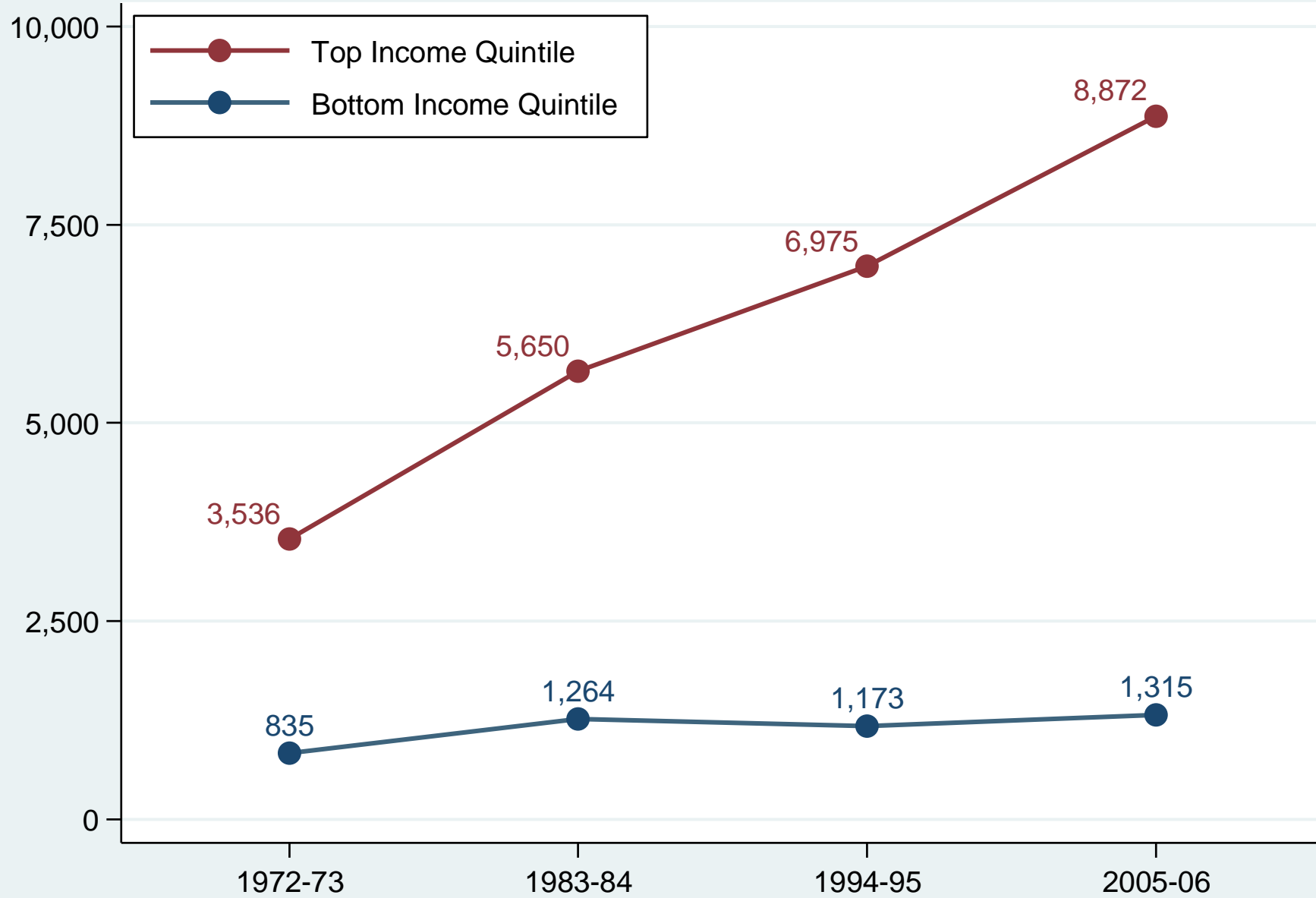


Source: Piketty & Saez (2014): <http://www.econ.berkeley.edu/~saez/TabFig2014prel.xls>

Proportion of Families Living in High-, Middle-, and Low-Income Neighborhoods Metropolitan Areas with Population > 500,000, 1970-2012

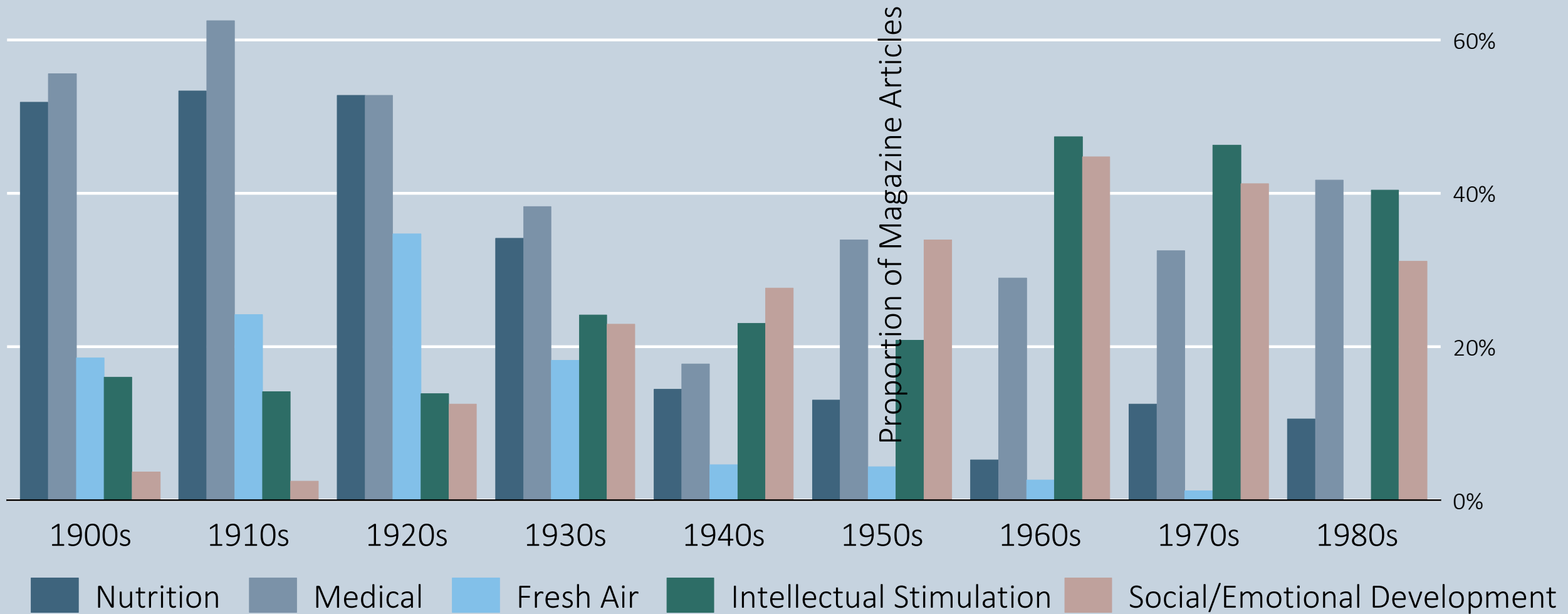


Family Enrichment Expenditures on Children, 1972-2006



Source: Duncan & Murnane (2011)

Topics of Expert Advice on Parenting, 1900-1985



Source: Wrigley, Julia. (1989). Do Young Children Need Intellectual Stimulation? Experts' Advice to Parents, 1900-1985. *History of Education Quarterly* 29/1:41-75 (Table 1).