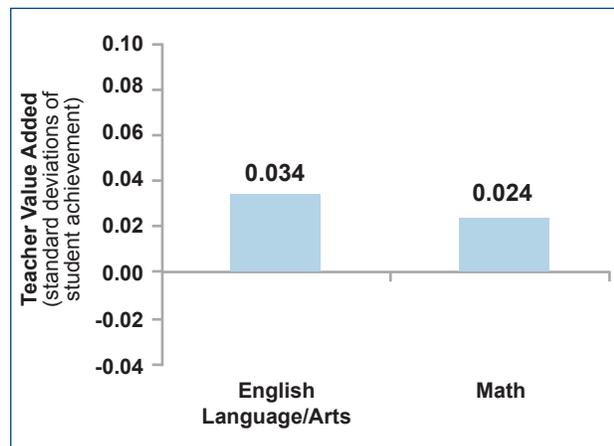


Exhibit 1: Difference in Effective Teaching Between Disadvantaged Students and Other Students



Background

Recent federal initiatives in education, such as Race to the Top, the Teacher Incentive Fund, and the flexibility waivers for the Elementary and Secondary Education Act are designed in part to ensure that disadvantaged students have equal access to effective teachers. The initiatives respond to the concern that disadvantaged students may be taught by less effective teachers and that this could contribute to the achievement gap between disadvantaged students and other students.

The study

To address the need for data on this issue, the Institute of Education Sciences at the U.S. Department of Education initiated a study to examine access to effective teaching for disadvantaged students in 29 diverse school districts. Mathematica Policy Research and its partner, the American Institutes for Research, are conducting a study that will focus on English/language arts (ELA) and math teachers in grades 4 through 8 from the 2008–2009 to the 2012–2013 school year. The first report examines access to effective teaching in the first three study years.

Do Disadvantaged Students Have Equal Access to Effective Teaching?

On average, disadvantaged students had less access to effective teaching than other students in 29 large, geographically diverse school districts.

Study approach

The study compared the average effectiveness of teaching experienced by disadvantaged students to other students, using value-added analysis to measure effective teaching. A value added model estimates a teacher's unique contribution to student achievement by measuring the achievement levels of a teacher's students after accounting for students' prior achievement and other characteristics that may be related to student achievement during the year. The study then compared the average value-added of the teachers of disadvantaged students to the average value added of the teachers of all other students. Free or reduced-price lunch eligibility was used to identify disadvantaged students.

Participating districts

The 29 districts included in the study are geographically diverse and have similar characteristics to the 100 largest districts in the United States. The study districts tended to have more low-income and minority students than the average U.S. district, with 63 percent of students in study districts eligible to receive a free or reduced-price lunch, and ranging from 34 to 78 percent across districts.

The findings

Disadvantaged students received less effective teaching than other students in the 29 study districts on average across three school years. The difference in access to effective teaching was equivalent to a gap of 0.034 standard deviations of student achievement in ELA and 0.024 standard deviations of student achievement in math (see Exhibit 1 on the previous page). To understand how unequal access contributes to differences in achievement between disadvantaged students and other students, the report estimated how eliminating unequal access to effective teaching for one year could reduce the student achievement gap. Providing equal access to effective teaching for disadvantaged and other students would decrease the student achievement gap from 28 percentile points to 26 percentile points in ELA and from 26 percentile points to 24 percentile points in math. The analysis also showed that:

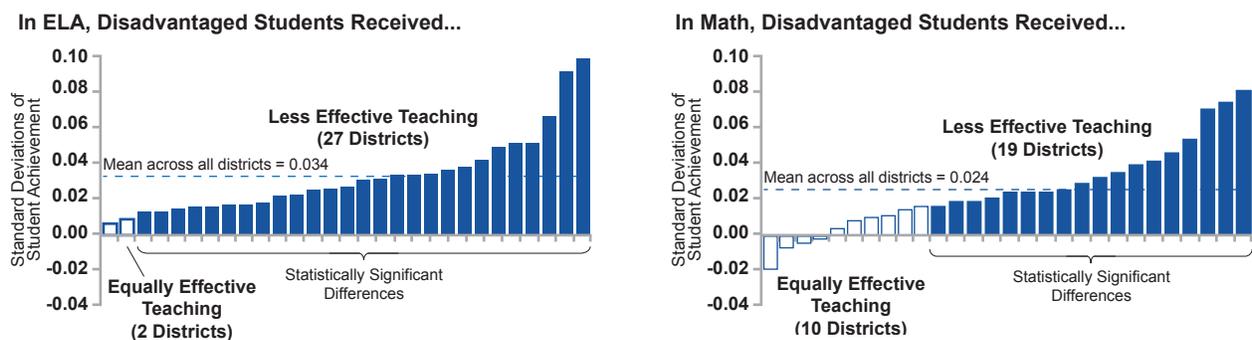
- Patterns of access to effective teaching for disadvantaged students were similar over the three years studied.

- Access to effective teaching varied across study districts, as shown in Exhibit 2. This ranged from districts with equal access to districts with differences in access as large as 0.106 standard deviations of student test scores in ELA and 0.081 standard deviations of student test scores in math, favoring advantaged students. Disadvantaged students had less access to effective teaching in ELA in 27 of the 29 districts and in 19 of the 29 districts in math. In the remaining districts, disadvantaged students and other students had similar access to effective teaching.
- Access to effective teaching was more related to the placement of teachers and students across schools than the way that students were assigned to teachers within schools.

Looking ahead

The next report in this study will relate access to effective teaching to different patterns of teacher hiring, retention, and mobility for high- and low-poverty schools. The final report will update all results based on an additional two years of data.

Exhibit 2. Access to Effective Teaching in English/Language Arts (ELA) and Math, 29 Study Districts



Note: Each bar represents a study district.

IES develops these study snapshots to offer short, accessible summaries of complex technical evaluation reports. For the full report with technical details, see <http://ies.ed.gov/ncee/pubs/20144001/pf/20144001.pdf>.

Isenberg, Eric, Jeffrey Max, Philip Gleason, Liz Potamites, Robert Santillano, Heinrich Hock, and Michael Hansen (2013). *Access to Effective Teaching for Disadvantaged Students* (NCEE 2014-4001). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.