

## Uneven playing field? Assessing the teacher quality gap between advantaged and disadvantaged students.

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**Purpose:** This goal of this study was to gather comprehensive data on a variety of metrics of teacher quality and student disadvantage in the state of Washington.

**Subjects**: This study focused on math and reading students in grades three through ten in the 2011-2012 school year, in all school districts in Washington State. The data were provided by Washington State's Office of Superintendent of Public Instruction.

**Research methods**: The researchers provided a comprehensive description of the inequitable distribution of teacher experience, credentials and effectiveness measures in comparison to the distribution of markers of student disadvantage, such as family income, race, and prior achievement. Next, the researchers decomposed the teacher quality gaps into district, school, and classroom effects. Finally, researchers focused on the probability of getting a very poor teacher. Teacher effectiveness was calculated using students' standardized test score progress in both math and reading. Precautions were taken to ensure that only teacher "added value" was quantified, accounting for students' family background and class size. The percentage of disadvantaged students with high/low-quality teachers was compared with the percentage of non-disadvantaged students with high/ low-quality teachers.

**Findings:** Across all observed grade levels, disadvantaged students, identified by either lunch status, minority status, or prior low academic performance, are more likely to be placed with a "low-quality" teacher, based on licensure exam score, teaching experience and value-added estimates. Similarly, schools and districts in low-income neighborhoods have a higher percentage of "low-quality" teachers than higher income areas.

**Implications:** These findings provide comprehensive, descriptive evidence for a pervasive teaching gap. Every measure of teacher quality, namely experience, licensure exam score, and value-added estimates of effectiveness, is inequitably distributed across every indicator of student disadvantage, namely free or reduced lunch, under-represented minority, and low prior academic performance, at virtually every school level in Washington State. These results suggest that this teacher gap is partly to blame for the achievement gap. One underlying factor for this gap in teacher quality is that teachers are paid on the same scale, regardless of "difficulty of assignment." It is proposed that salary incentives may increase the level of high quality teaching in high-poverty, low-performing schools.

