

Beyond Test Scores: Measuring Teacher Impact on Student Success

Research One-Pager
February 2023

IN BRIEF

- Teachers have far-reaching impacts on their students. But policy and research often measure teacher quality using test-based outcomes alone.
- Recent evidence from CALDER highlights how non-test measures of teacher quality can add to our understanding of the impact teachers have on students. The results have implications for long-run student success and equity.

Most states and districts already collect data they can use to create non-test measures of teacher quality.

Working with partners at the Massachusetts' Department of Elementary and Secondary Education, CALDER researchers measured how individual teachers contribute to a range of non-test outcomes.

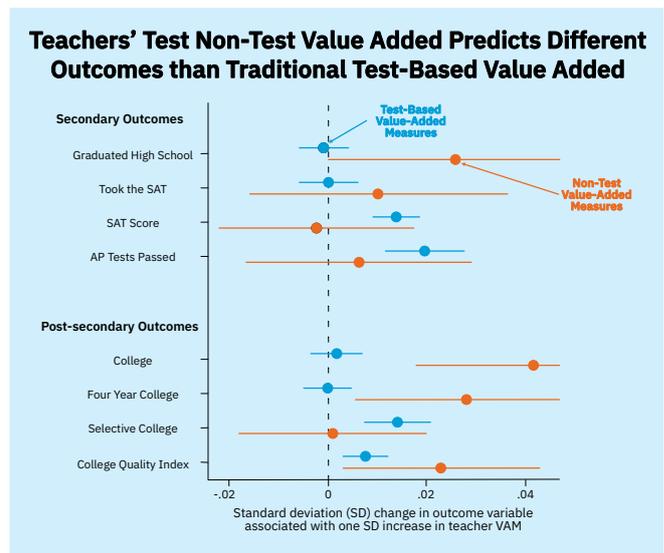
Following Jackson (2018), we examined teacher contributions to student attendance, course grades, grade promotion, and discipline. We also looked at how teachers affect student perceptions of school climate.

Like test-based value-added measures, these non-test measures isolate teacher contributions from other factors that affect the outcomes in question. Interestingly, we found that non-test teacher quality measures *are not* strongly correlated with test-based quality measures (0.15).

The better teachers are at improving non-test outcomes, the more likely their students are to graduate from high school and enroll in college.

When we examined the relationship between non-test measures and long-run student outcomes, we found that teachers who excelled at *increasing* student attendance, course grades, and grade promotion, and *reducing* suspensions, increased the odds that students would graduate from high school and enroll in a 2- or 4-year college.

Teachers who were better at raising student test scores, by contrast, boosted SAT scores and college selectivity.



Non-test measures also suggest that teachers who are better at improving school climate help students do better academically—especially students of color.

In a related Massachusetts study, we examined teacher contributions to school climate using a state-administered climate survey. In addition to finding that students whose teachers make positive contributions to climate learn more, we found that students of color make larger-than-expected academic achievement gains when they perceive their teachers make positive contributions to school climate regarding cultural competence, participation and engagement, and relationships. We also found that teachers who improved the climate for students of color promoted a better climate for all students.

Bottom Line

Policies that focus on test-scores alone miss important contributions teachers make to student success. Administrative and climate data have the potential to broaden the system's understanding of the quality of the teacher workforce and capture additional dimensions of teacher quality that matter to students in K12 and beyond.

Go Deeper: caldercenter.org

Backes, B., Cowan, J., Goldhaber, D., & Theobald, R. (2022). Teachers and school climate: Effects on student outcomes and academic disparities. CALDER Working Paper 274-1022.

Backes, B., Cowan, J., Goldhaber, D., & Theobald, R. (2022). Teachers and students' postsecondary outcomes: Testing the predictive power of test and nontest teacher quality measures. CALDER Working Paper 270-1022.

Jackson, C. K. (2018). What do test scores miss? The importance of teacher effects on non-test score outcomes. *Journal of Political Economy*, 126(5), 2072–2107.