

The Effects of Teacher Quality on Adult Criminal Justice Contact

Based on BFI Working Paper 2022-98, “[The Effects of Teacher Quality on Adult Criminal Justice Contact](#)” by Evan K. Rose, University of Chicago; Jonathan T. Schellenberg, Amazon; and Yotam Shem-Tov, UCLA

Teachers have important effects on whether students face arrest, conviction, and incarceration later in life that correlate with impacts on suspensions and attendance, not test scores.

Teacher quality has been shown to positively impact such outcomes as test scores and long-run academic and labor market outcomes, but less is known about teacher quality and students’ contact with the criminal justice system (CJC) as young adults. This paper addresses this gap by investigating whether and how teachers impact students’ future chances of CJC.

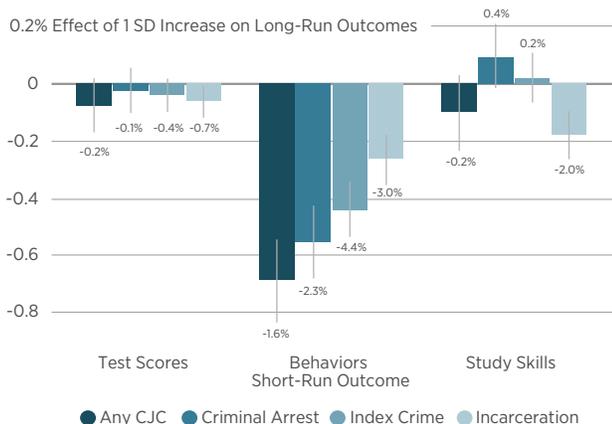
The authors link schooling and criminal justice records to estimate the variance of elementary and middle school teachers’ effects on students’ future arrest, conviction, and incarceration. To study the

drivers of these effects, the authors relate them to teachers’ impacts on standardized test scores and a set of disciplinary and attendance outcomes, which serve as proxies for non-cognitive skills. This allows the authors to ask whether teachers who boost test scores, for example, also decrease their students’ future CJC, and whether teachers who reduce suspensions do the same.

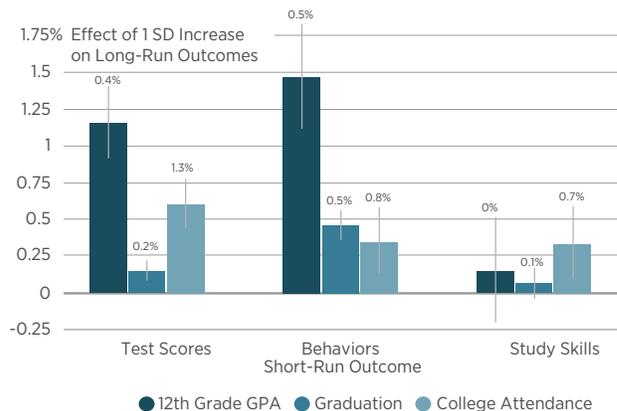
The authors’ data source is a merger of administrative criminal justice and education datasets in North Carolina, including almost two million students in grades 3-12 from 1996-2013, and

Figure 1 • Better Teachers Matter, and Good Teaching is More than Grades: Effects of Teacher Quality on Long-Run Outcomes

A) Criminal Justice Contact (CJC) Outcomes



B) Academic Outcomes



Notes: This figure presents the estimated effect of a one standard deviation increase in teacher quality as measured by effects on short-run outcomes (x-axis) on their students’ long-run outcomes. The error bars are 95% confidence intervals. Numbers above/below each bar report effects as a percentage of the outcome mean. Please see working paper for more details and descriptions of each outcome.

40,000 teachers. The criminal justice data include the universe of N.C. arrests and detailed data on case outcomes, including conviction status and sentences. Their analysis of this novel dataset reveals the following findings:

- Estimates of teachers' direct effects on future arrests, convictions, and incarceration are large: The authors find a standard deviation of teacher effects on future arrests of 2.7 percentage points (p.p.) or 11.3 percent of the sample mean, and on incarceration of 2.1 p.p., or 23.6 percent of the sample mean.
- Teachers who boost test scores or study skills do not meaningfully decrease students' CJC as young adults. Shifting a student to a teacher with one standard deviation higher effect on test scores decreases students' likelihood of arrest between the ages of 16 and 21 by less than 0.001 percentage points.
- By contrast, teachers' impacts on behavioral outcomes are closely connected to their impacts on CJC. Assignment to a teacher who is a standard deviation better on a summary index of discipline, attendance, and grade repetition decreases the likelihood of future CJC by 2 to 4 percent, depending on the outcome.
- These beneficial effects hold across sex, race, socio-economic status, and predicted CJC risk, but they are not perfectly correlated across student types. The correlation of a teacher's effect on white and non-white students' criminal arrests is roughly 0.5, for example, indicating important heterogeneity in teachers' impacts. Effects on short-run outcomes, on the other hand, show tight correlation across groups.

- The authors also examine how teachers' effects might change across different schooling environments and find that large teacher effects on CJC are most tightly correlated with impacts on behaviors rather than test scores across all contexts.
- Examining policy implications, the authors find that replacing the bottom 5 percent of teachers based on various measures would result in large, long-run improvements, including up to 10 p.p. increases in college attendance and 6 p.p. reductions in criminal arrests for exposed students.

Policymakers take note: Teachers who improve proxies for non-cognitive skills such as rates of school discipline and attendance have meaningful impacts on students' future arrest, conviction, and incarceration rates. This evidence supports a growing body of research showing that the accumulation of "soft skills" may lie at the heart of the return to education for crime. It also suggests that teacher retention and incentive based solely on teachers' test score quality may inadvertently miss an important dimension of teachers' social value.

READ THE WORKING PAPER

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