

# NATIONAL CENTER ON Performance Incentives

## *Research Brief*



## Missouri's Teacher Career Ladder Program

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In “Missouri’s Teacher Career Ladder Program”—a paper presented at the National Center on Performance Incentives research to policy conference in February — Kevin Booker and Steven Glazerman of Mathematica Policy Research Inc. examine the effect of Missouri’s Career Ladder Program on student achievement. Using longitudinal district-level achievement data, the authors report evidence of a small positive Career Ladder effect on average math achievement, but no significant effect on reading scores. Booker and Glazerman conclude that if Career Ladder does have a positive impact on test scores, it is probably very small.

### What is Missouri’s Teacher Career Ladder Program?

Missouri’s Career Ladder Program is one of the longest-lived performance pay programs in the U.S. public education system. It began in 1985 and is the most mature career ladder program in the country. The program operates statewide and is funded jointly by the state and participating districts. Participating districts must provide matching funds, ranging from 40 to 60 percent of total costs. Poorer districts receive a higher percentage of state funding. Of the more than 65,000 teachers in 524 districts statewide, more than 17,000 (26%) from 333 districts (64%) participated in the Career Ladder Program during the 2005-06 school year.

The Career Ladder uses multiple performance

indicators—teacher performance, tenure, and extra responsibilities—to determine teacher eligibility for salary supplements. Unlike some other career ladder programs, Missouri’s program does not use student achievement as a determinant of teacher performance. Instead, teacher performance is evaluated by a district Career Ladder Review Committee that reviews observation reports, lesson plans, and evidence of proficiency on 20 criteria from the district’s Performance-Based Teacher Evaluation (PBTE) instrument.

Teachers in participating districts are eligible to receive supplemental pay for extra work that contributes to improvement in students’ academic outcomes, such as providing opportunities for enhanced student learning experiences, offering remedial assistance to students, or engaging in professional development activities. The availability of extra work opportunities, and the rate at which the extra work is compensated, is based on a teacher’s Career Ladder status. To be eligible for Stage 1, a teacher must have five years of teaching experience in the state with satisfactory performance on his/her district’s PBTE instrument. A teacher must have two years of satisfactory performance at Stage 1 in order to advance to Stage 2. Subsequently, a teacher can move up to the third and final stage by completing three years of satisfactory performance at Stage 2. Stage 1 teachers can earn up to \$1,500 per year, while those in the second and third stages can earn up to

\$3,000 and \$5,000 per year, respectively.

### What is the Impact of Missouri's Teacher Career Ladder Program?

In order to determine the impact of Missouri's Career Ladder Program on student achievement, the authors analyzed nine years of student test results from the state's math and reading assessments in the 524 school districts statewide. Their primary objective was to compare achievement levels over time in participating districts with a matched group of non-participating districts. Alternate analyses compared achievement levels while controlling for prior district scores and using variation in district participation over time to look at within-district effects.

Booker and Glazerman found that Missouri's Career Ladder Program has a limited effect on student test scores. While they did uncover a positive association between a district's participation in the program and its average test results at three grade levels, the estimates were small for math scores and not statistically significant for reading scores.

The authors acknowledge several limitations of their study that should be considered when interpreting these results. First, participating and non-participating districts were dissimilar across a number of important factors. In fact, the districts that chose to participate in Missouri's Career Ladder Program tended to be smaller, more rural, and have a higher percentage of disadvantaged students than districts that did not participate in the program. These differences could influence achievement outcomes aside from any program effect.

Additionally, the researchers were unable to account for differences in program design across participating districts when analyzing the program's impact on student achievement. For example, focus groups conducted with teachers participating in the state program identified wide variation in program designs, particularly in the ways districts define the "performance" component. Booker and Glazerman note that without comprehensive data on program implementation across participating districts, they are limited to estimating only the average

implementation effect across all participating districts.

### Conclusion

Despite these limitations, the authors contend that their findings are relevant for policy makers not only in Missouri, but across the nation. District officials should consider findings that Missouri's Career Ladder Program has had at most a small impact on student test scores in participating districts. State-level policy makers should also take this finding in account when deciding whether or not to modify program guidelines, continue the program unchanged, or eliminate it altogether.

Finally, Booker and Glazerman draw attention to the fact that this study is part of a larger evaluation of Missouri's Career Ladder Program. Two complimentary studies are underway and will address the following questions: How does the program operate in theory and in practice? What effect does Career Ladder have on teachers' career decisions, specifically on their decision to stay in their district or to stay in teaching altogether? Companion reports to address these questions are forthcoming and will provide more comprehensive understanding of how Missouri's Career Ladder Program is implemented across the state, and its impact on the state's teaching profession.



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