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NATIONAL CENTER ON
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College of Education &
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Teacher Compensation Reform in American K-12 Education

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Discussion Questions

- Why has teacher compensation reform been elevated in policy deliberations?
- What are theoretical arguments for and against teacher compensation reform?
- What can we deduce from studies that have evaluated teacher compensation reform policies?



Why has teacher compensation reform
been elevated in policy deliberations?

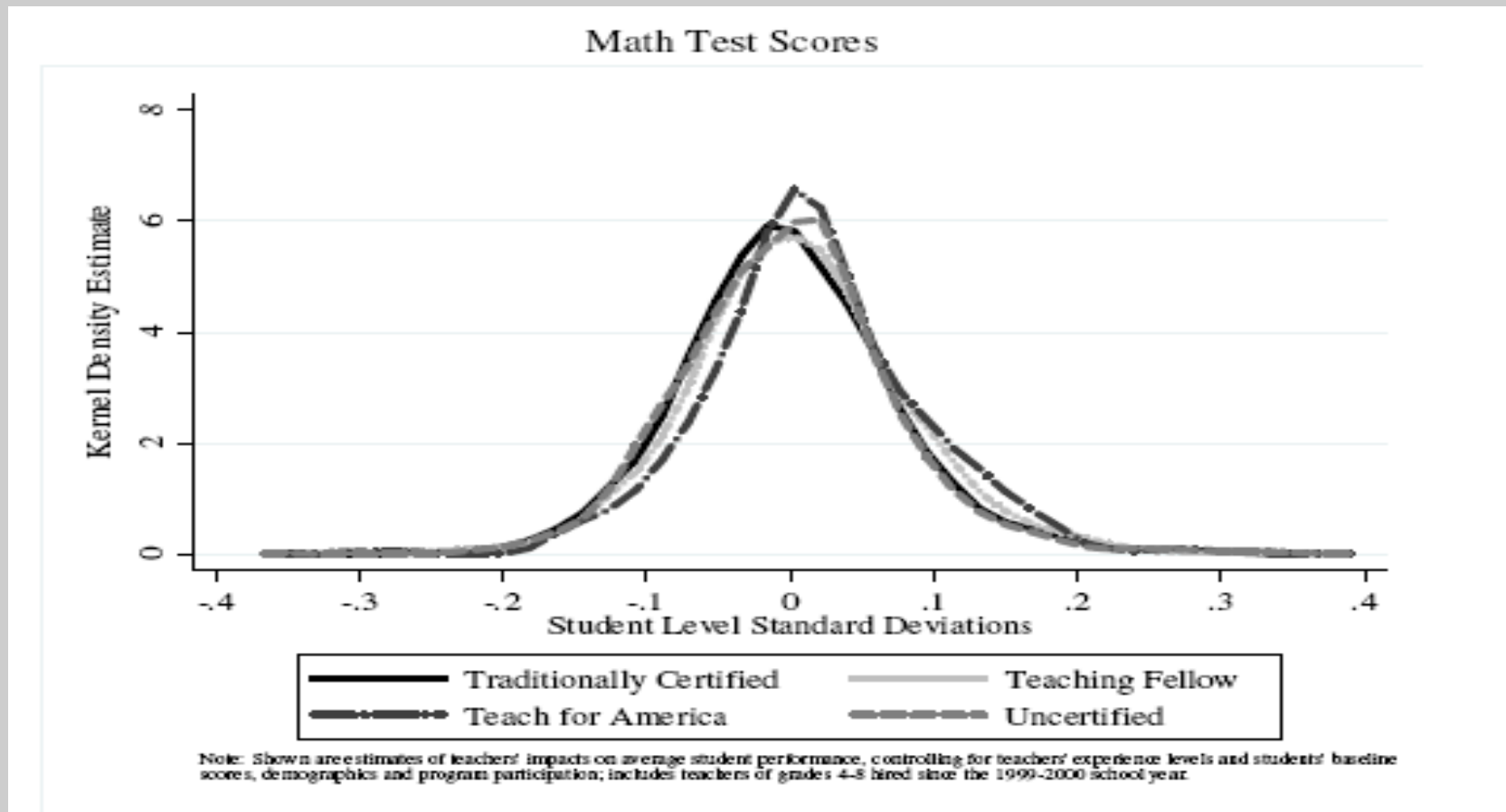


Why has teacher compensation reform been elevated in policy deliberations?

- Teachers are the single most important determinant of students' experiences and outcomes of schooling (Goldhaber, 2002).
- Top-performing teachers are capable of producing threefold the achievement growth in students when compared to low-performing teachers (Hanushek, 1992).
- A string of five above-average teachers can overcome the deficit typically reported between economically disadvantaged and higher income students (Rivkin et al, 2002).
- Most needy students generally end up being taught by least-qualified teachers (Lankford et al, 2002; Loeb, 2000).



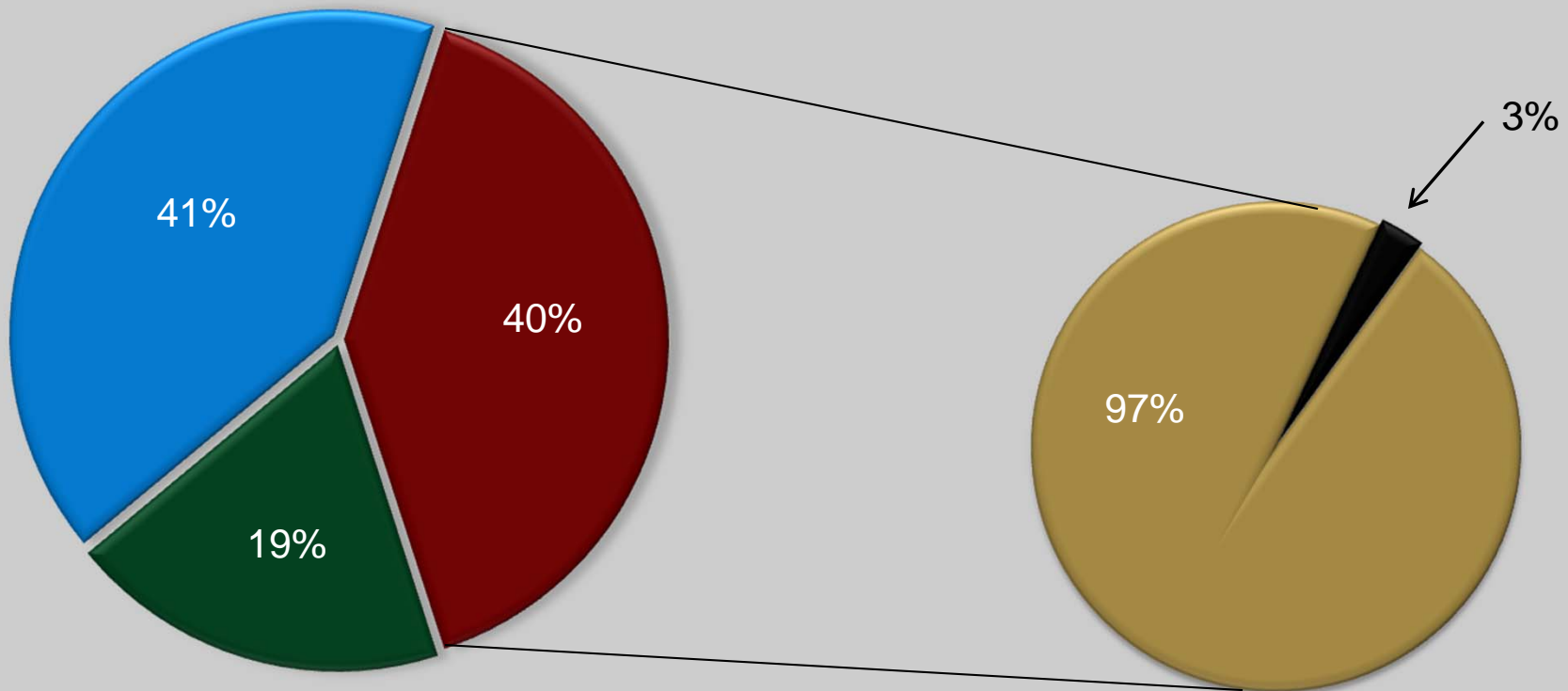
Variation in teacher effectiveness within and between groups of teachers



Source: Kane, T.J., Rockoff, J.E., and Staiger, D.O. (2006). What Does Certification Tell Us About Teacher Effectiveness? Evidence from New York City.



Teacher Compensation Practices and Teacher Quality



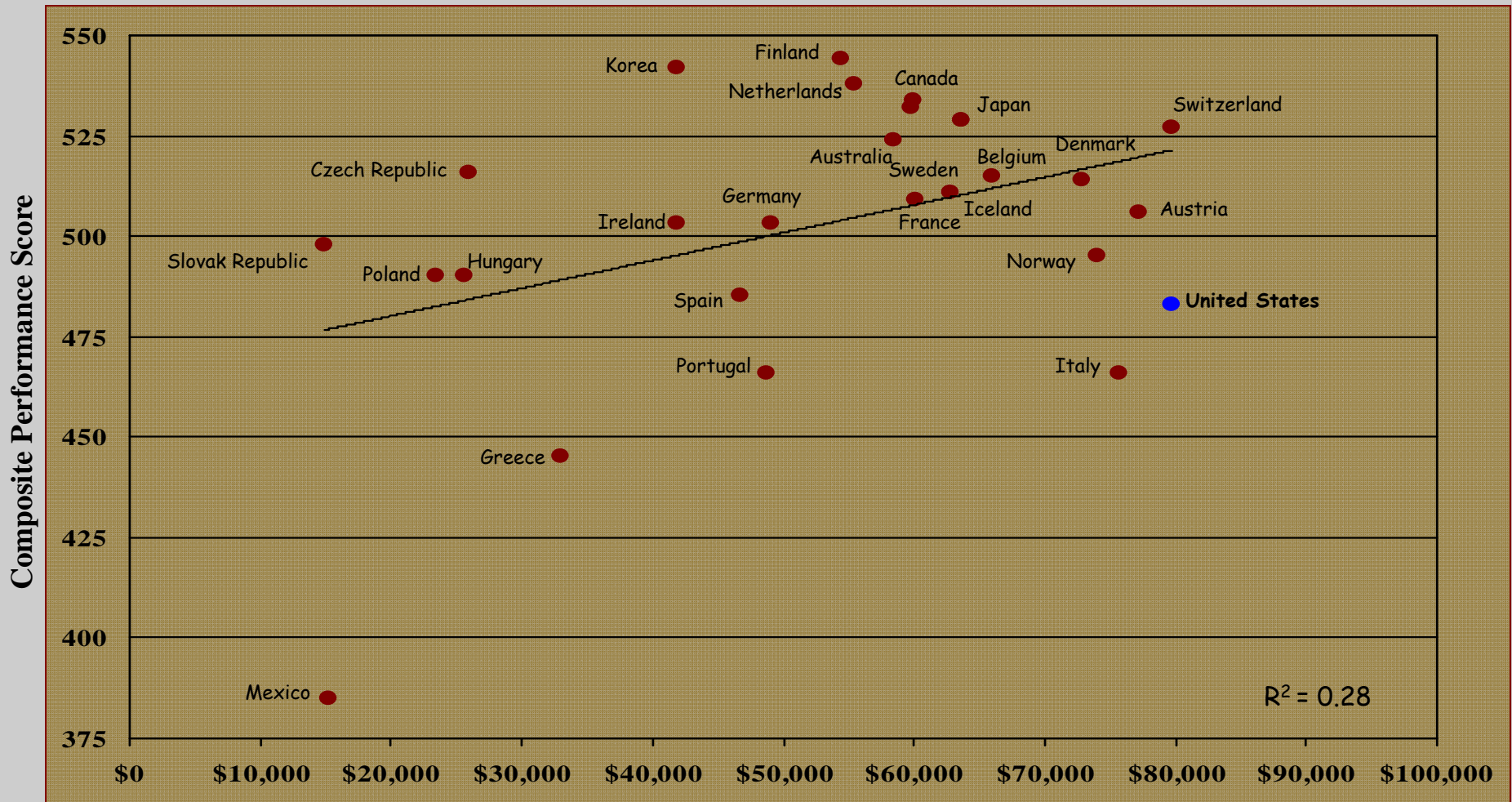
- Teacher-Level Variables
- Classroom-Level Variables
- School-Level Variables

- Less Tangible Aspects
- Easily Measurable Aspects

Source: Goldhaber, D. (2007). Thoughts on Teacher Pay Reform. Washington, DC: National Comprehensive Center on Teacher Quality.



Student performance and spending per student



Source: Charbonnier, E. (2005). Trends in Financing Education. OECD.

Cumulative Expenditure (US\$)



What are the theoretical arguments for
and against teacher compensation
reform?



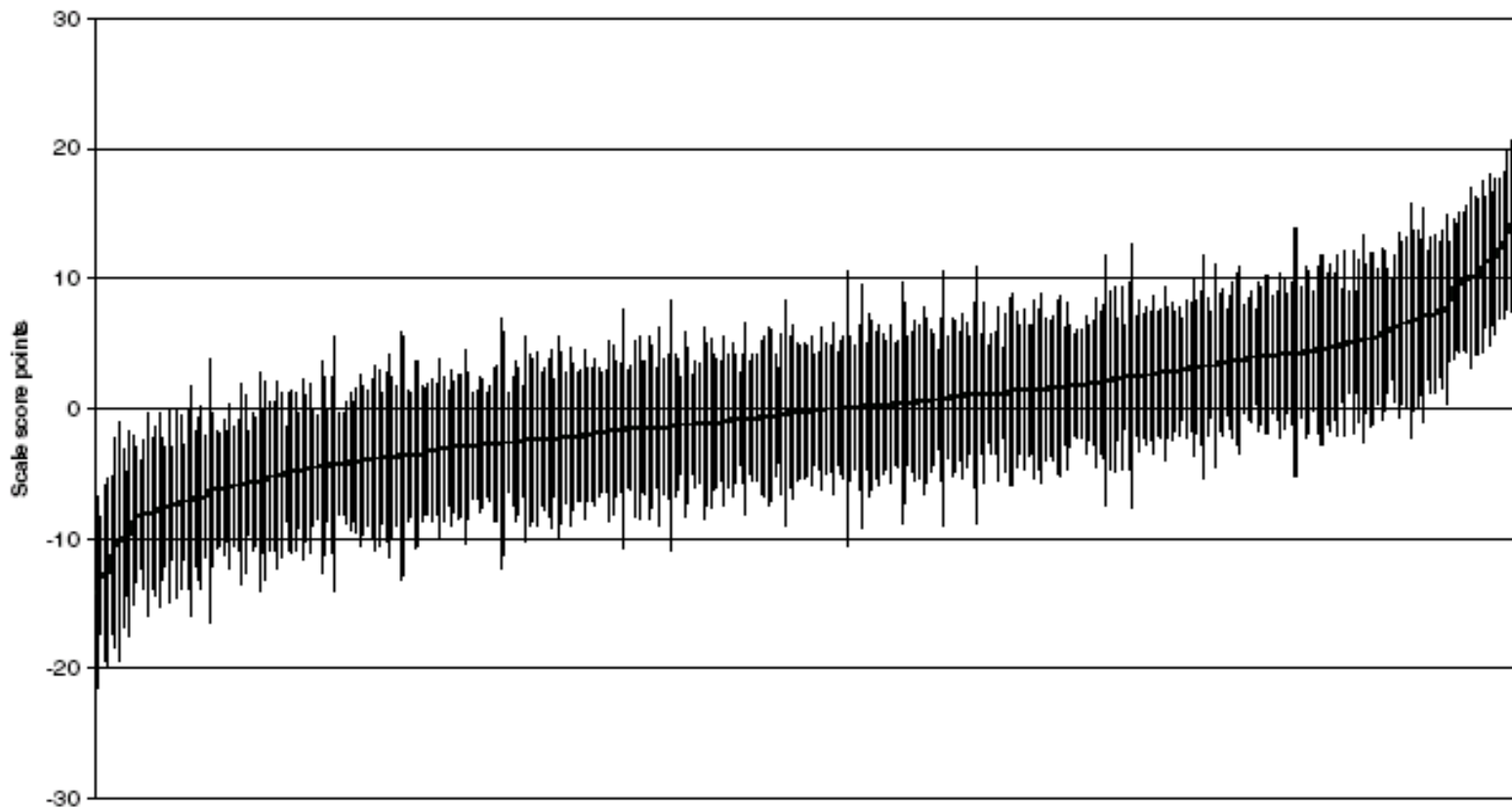
Performance Monitoring – difficulty in monitoring
and assessing teacher performance.

Teacher performance is
difficult to monitor
because output is not
readily measured in a
reliable, valid, and fair
manner.

States and districts are
developing massive
longitudinal student-level
databases that permit more
precise estimation of value-
added contributions at the
building-, grade- and
teacher-level.



Estimated Teacher Effects, with 90% Confidence Intervals: 5th Grade Math



Source: Ballou, D. Value-Added Assessments: Lessons from Tennessee. *Journal of Educational and Behavioral Statistics*. 1-26.



Team Production – teachers work as members of a team.

Introducing rewards at the individual teacher level might reduce incentives for teachers to cooperate and, as a consequence, reduce rather than increase school performance.

Performance-related pay programs can reward groups of teachers and do not necessarily have to use a fixed-tournament bonus scheme.



The Multitasking Problem – the performance of a teacher has multiple dimensions, only some of which are measured and incentivized.

When there is a structural misalignment between an organization's overall mission and the activity to which incentives are attached, not surprisingly, employees tend to shift work toward the metered, rewarded activity, and away from other important activities.

Pay for performance plan should use multiple indicators of performance in combination with careful monitoring of system-gaming and/or other opportunistic behaviors.



Payment for Input and Payment for Output

Informational deficiencies in the hiring process are ameliorated in most profession by subsequent employee performance assessments, and as pay raises become more closely tied to actual productivity, thereby lessening dependence on input-based indicators for employees.

A performance-related pay program will tend to attract and retain individuals who are particularly good at the activity to which incentives are attached, and repel those who are not.

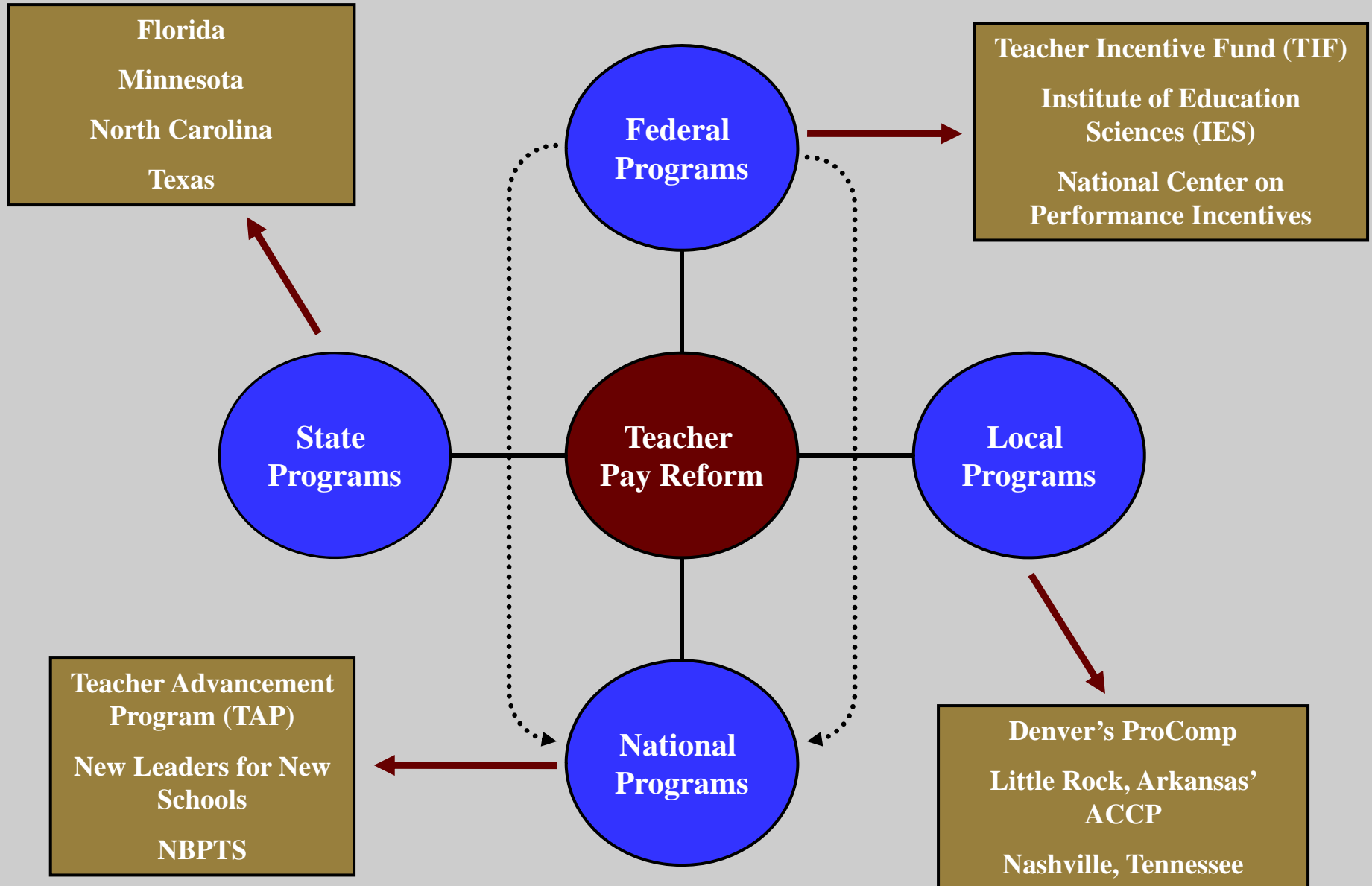


What can we deduce from studies that have evaluated teacher compensation reform policies and current pay for performance policies across the Nation?



Quantitative studies of the causal effect of teacher incentives programs on measures of student achievement

- Evaluation literature is small.
- Studies conducted to date are generally positive and provide a strong case for further policy experimentation in this area by states and districts combined with rigorous evaluation.
- Not sufficiently robust to prescribe how systems should be designed (e.g., optimal size of bonuses, mix of individual versus group incentives).





Why conduct a randomized experiment?

- Gold standard for causal inference.
- Participants are assigned by chance to control and treatment group conditions.
- Using chance to assign participants to experimental groups means that the groups will be similar and comparisons of control and treatment groups will not be biased.



Project on Incentives in Teaching (POINT) Experiment

- Nation's first true teacher pay for performance experiment.
- 296 middle school math teachers voluntarily participating, roughly $\frac{1}{2}$ control group and $\frac{1}{2}$ treatment group.
- Treatment group teachers are eligible for monetary bonuses ranging from \$5,000 to \$15,000 per year.
- Bonuses are based on average student achievement gains in math as measured by TCAP.



Conclusion

- Theory can introduce a helpful set of arguments for consideration, but it provides only a limited base of knowledge about teacher compensation reform.
- Educational researchers and policymakers must turn to field experimentation and independent appraisal to determine whether teacher compensation policy reforms constitute an effective innovation.
- What we know is that existing teacher remuneration policy is ineffective. We do not know what should replace present pay system.