

# What Do We Know About the Use of Value-Added Measures for Principal Evaluation?

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# Principals

- Play a central role in *how well a school performs*
  - Establish school goals and strategies
  - Lead their schools' instructional programs
  - Recruit and retain teachers
  - Maintain the school climate
  - Allocate resources
- Play a central role in *current policy approaches*
- Interest in understanding principal effectiveness and improvement

# Evaluation

- Recent policy interest in using student test scores to evaluate school personnel
  - New York: Educational Law 3012-c (2010), 20-40%
  - Louisiana: House Bill 1033 (2010), 50%
  - Florida: Senate Bill 736 (2011), 50%
- A relatively large literature has focused on the issues surrounding the use of student growth models to measure **teacher** effects
- In contrast, very little research on using test scores to do the same for **principals**.

# Aren't the principal issues like the teacher issues?

- In some ways, **yes**
  - Which test you use matters
  - Student sorting across schools can create bias if not well addressed
  - Test measurement error, sampling error, and other shocks introduces error in effect estimates
- But in some important ways, **no**
  - Principal effects dispersed over entire school, so the principal can affect a given student in more than one year
  - Indirect effects on students mediated by resources that are only partially under principal's control
  - For teachers, we can compare within the same school to combat sorting and control for school contextual factors—but only 1 principal per school at a time

# Mechanisms of Principal Effects

- Clear process by which teachers affect students
- Less clear for principals
- Two salient issues
  - Time span
  - Domain of control
- Assumptions about each of these lead to different approaches to measurement

# Approach 1: School Effectiveness

- Assume the principal...
  - Immediately affects schools
  - Has complete control over all aspects of schooling outside of who the students are
- Principal effectiveness = School effectiveness
- Similar to the approach used for teachers
- Validity
  - Concern that principals, especially new principals, can not influence (and should not be held responsible for) all aspects of the school

# Approach 2: Relative School Effectiveness

- Assume the principal...
  - Immediately affects schools
  - Inherits an existing school with many features out of his/her control
- Principal effectiveness = School effectiveness relative to other principals who have led the same school
- Validity
  - Appealing given substantial differences in schools
  - But, schools change
  - Small number of principals per schools over the period of available data leads to small (potentially idiosyncratic) comparisons.

# Approach 3: School Improvement

- Assume the principal...
  - Takes time to make changes and that their impact builds the longer they lead the school
- Principal effectiveness = *Improvement* in school effectiveness during the principal's tenure
- Validity
  - Appealing because principals probably do affect students by improving the school over time
  - If the school was already improving may falsely attribute to current principal
  - Measuring change compounds imprecision - may be too imprecise to provide information



# Current State of Knowledge

- Compared to knowledge about teacher value-added
  - Much smaller literature
  - Based on different conceptions of how principals affect students
- Model Choice Matters
  - Affects which principals look good
    - School improvement estimates not similar to school effectiveness or relative school effectiveness measures
  - Affects how important principals appear for student learning
    - School improvement approach leads to small estimates of principal effects, potentially due to measurement error
    - School effectiveness models show greater effects than relative school effectiveness models
  - Affects which principals receive evaluations
    - Far fewer for improvement – need multiple years in a school
    - Far fewer for relative school effectiveness – need multiple principals per school

# Current State of Knowledge

- Comparison to other measures
  - For example, district evaluations, self-evaluations, staff evaluations...
  - No relationship with school improvement measures
  - School effectiveness models closer to other measures
    - Could results from shortcomings in other measures
- Summary
  - School Improvement as Principal Effectiveness
    - Face validity
    - Some variation across principals (British Columbia study)
    - Substantial error, limited coverage
  - Relative School Improvement
    - Potentially idiosyncratic
    - Low coverage
  - School Improvement
    - Best coverage, lowest error, best alignment
    - Still may not be right – low face validity

# What More Needs to be Known

- Tests
  - How different are estimates with different outcomes
- Mechanism: How principals affect schools
  - Timing
  - Features of control
- Use
  - Given imperfections how useful for improvement

# What Can't be Resolved by Empirical Evidence?

- Whether VA is a productive source of information for evaluation
- How to balance value-added with other measures
- Both depend on ability to collect and processes additional information – costs and benefits

# Conclusion

- Inconsistencies and drawbacks of principal value-added measures lead to questions about whether they should be used at all
  - Not an accurate measure of effectiveness
  - Lacks reasonable validity when calculated in a similar fashion to teacher value added
  - Other approaches are conceptually beneficial but difficult to implement: imprecise or small coverage
- Even if inaccurate could signal importance of student performance
- Other measures have similar problems.
- Currently it takes thought and multiple measures to convincingly assess principal effects.

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