

Measuring and Improving the Effectiveness of High School Teachers

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Every Child a Graduate



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Outline of the Brief

- Defining teacher effectiveness at the high school level
- Measuring teacher effectiveness at the high school level
- Using teacher effectiveness measures to improve teaching at the high school level



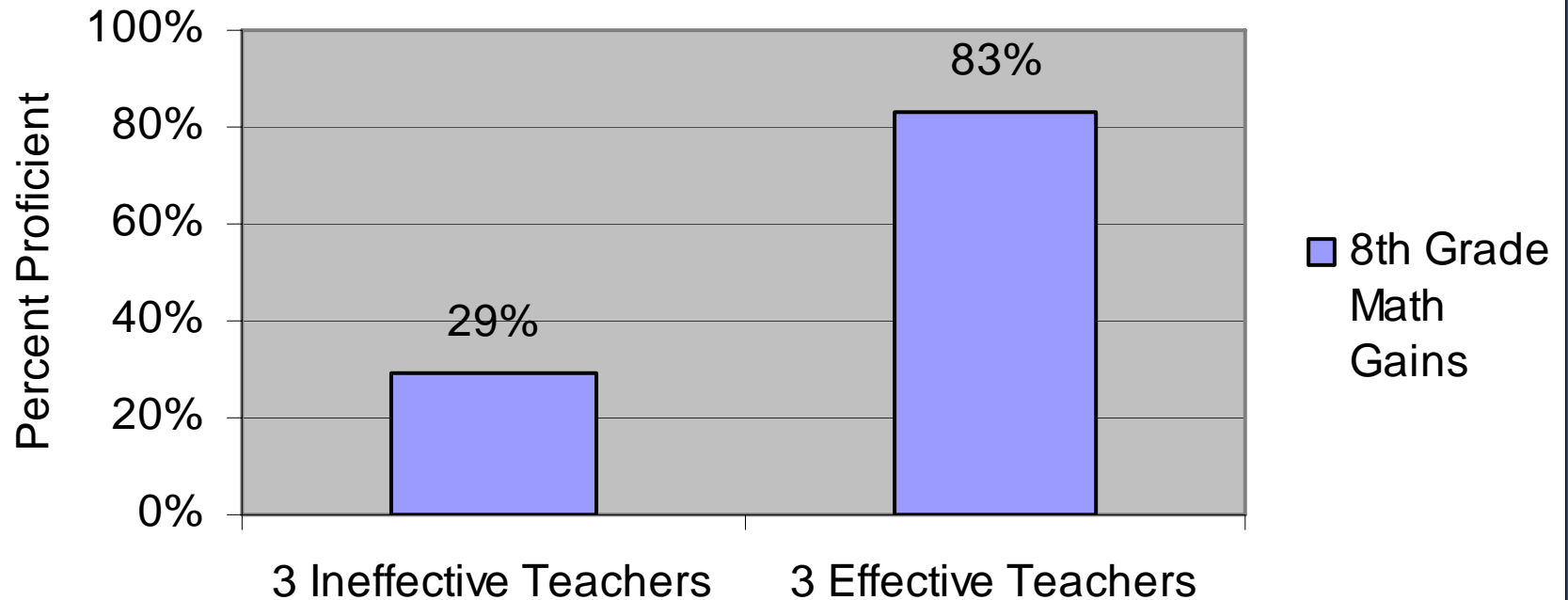
Defining Effectiveness

- Essentially, teacher effectiveness is demonstrating contributions to student learning growth.
- Student achievement is primary, but other factors count
 - Motivating and engaging students
 - Acquiring subject-specific knowledge and skill
 - Working with colleagues in professional learning communities
- In high school, student achievement progresses toward graduating college- and work-ready
 - *High School Teaching for the 21st Century: Preparing Students for College* (Alliance for Excellent Education 2007)



Defining Effectiveness

Impact of Teacher Effectiveness



Source: Sanders and Rivers 1996



Measuring Effectiveness

- Student learning gains
 - Value-added analysis
 - Other measures of student learning growth
- Teacher knowledge and skill



Measuring Effectiveness

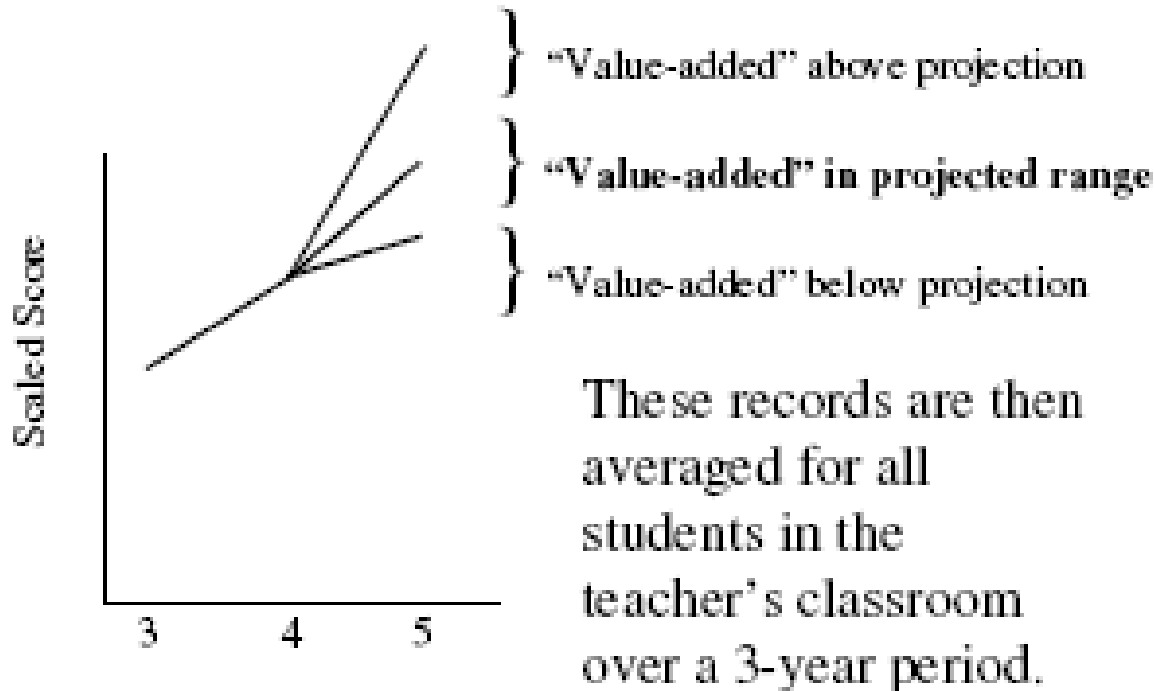
Student Learning Gains: Value-Added

- Value-added is a statistical method for determining the impact a teacher—versus other factors like income level, prior achievement, and school characteristics—makes on student achievement.
- Value-added estimates the academic growth a student is expected to make for the year and compares it to how the student actually performs on standardized assessments.



Measuring Effectiveness

Value-added yields three outcomes



Source: [Hershberg, T. 2004. Value-added assessment: Powerful diagnostics to improve instruction and promote student achievement.](#)



Measuring Effectiveness

Student Learning Gains: Value-Added

- **Value-added at high school level requires –**
 - Aligned annual assessments OR end-of-course exams
 - Assessments for teachers outside core subjects
 - Baseline estimate of student achievement
 - Statistical methods for isolating teacher impact
 - Data converted to user friendly information
 - Time, training, and leadership to use information to improve teaching



Measuring Effectiveness

Student Learning Gains: Value-Added

<u>Pros</u>	<u>Cons</u>
Objective & comparable measures of teacher impact on student learning	Limits of using tests to measure complex learning
Grounds teacher improvement in student outcomes	Lack of tests in high schools and for some subjects
Value-added already in use at the high school level	Missing data and random errors
Value-added improving over time	In/ability to account for school factors that impact learning?



Measuring Effectiveness

Student Learning Gains: Other Measures

- Pre-tests followed by post-tests
- Interim assessments (i.e., benchmark exams)
- Formative assessments



Measuring Effectiveness

Teacher Knowledge and Skill

- Subject-specific knowledge
- Subject-specific pedagogy
- Motivation and engagement
- Working with diverse students and learners
- Literacy instruction embedded in content
- College- and work-readiness



Improving Effectiveness

- Enhancing professional development and teacher preparation
- Strengthening teacher evaluations and career paths
- Revamping accountability policies



Improving Effectiveness

Professional Development

- Evaluate impact of professional development
- Inform who needs intensive professional development
- Use effectiveness data to determine content of professional development



Improving Effectiveness

Teacher Preparation

- Evaluate impact of teacher preparation
 - Louisiana, Ohio, Virginia, Teachers for a New Era
- Map backward to determine what constitutes effective instruction and teach it to candidates
- Use effectiveness data to inform induction



Improving Effectiveness

Teacher Evaluations

- Provide a deeper look at instruction
 - What is happening in the classroom that leads to or hinders student achievement?
- Use multiple measures based on explicit standards and clear rubrics
- Administered by multiple evaluators – peers and supervisors
- Provide in depth, subject-specific feedback
- Inform common planning time, observations of high-performing teachers, and professional development



Improving Effectiveness

Career Paths

- Career ladders offer new roles with additional pay in exchange for new responsibility
- Provides recognition and incentives for improved instruction
- Decisions about career paths should be informed by effectiveness data



Improving Effectiveness

Accountability

- Qualifications are now the floor, not the ceiling
- Incentives for improvement
 - External (i.e., pay, career status, sanctions, rewards)
 - Internal (i.e., teacher goals, self-perception)
- Finding the right leverage point
 - School level accountability
 - Teacher level accountability



Where Do We Go From Here?

- **Improve measures of student learning**
 - Strengthen value-added analysis for high schools
 - Enhance student assessments across the board
 - Develop valid alternate measures of student learning
- **Develop other measures of teacher effectiveness**
 - Develop measures of teacher knowledge and skill
 - Improve teacher evaluation tools and incentives for using them
- **Build and strengthen data systems**
 - Build and improve state data systems
 - Create and use individual teacher identifiers to link student data with teacher data
 - Align state, district, and school data systems
- **Foster school structures that promote effectiveness**
 - Change culture and execution of professional development
 - Strengthen school leadership
 - Support innovation in accountability and incentives for improvement



Thank You!

MetLife Foundation

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