

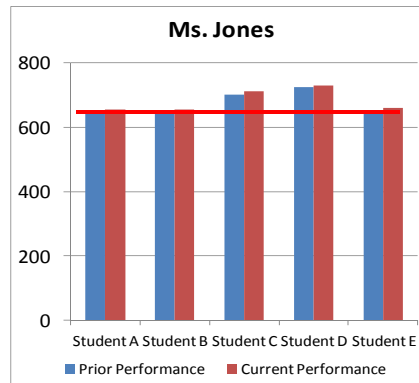
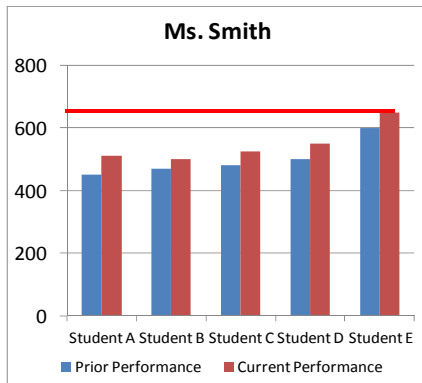
Student Growth and Value-added Measures of Effective Teaching (Handout with Figures/Tables)

Jonah Rockoff
Columbia Business School

May, 2013

The Essence of the Problem

- Which teacher is more effective?

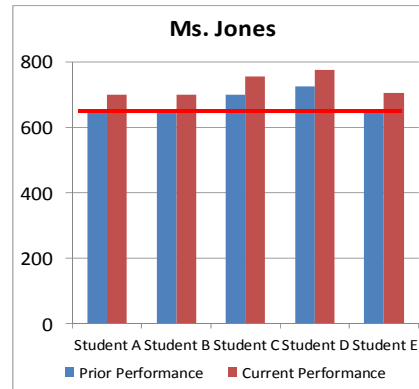
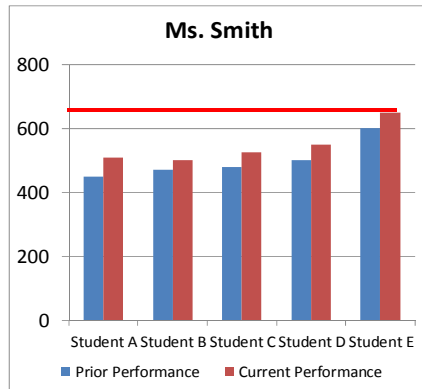


— Proficiency

Source: EngageNY

The Essence of the Problem (Part 2)

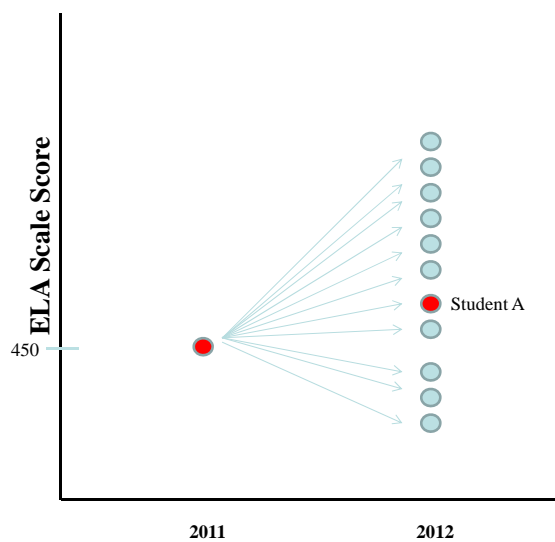
- Now which teacher is more effective??



Ms. Smith avg growth = 47 points

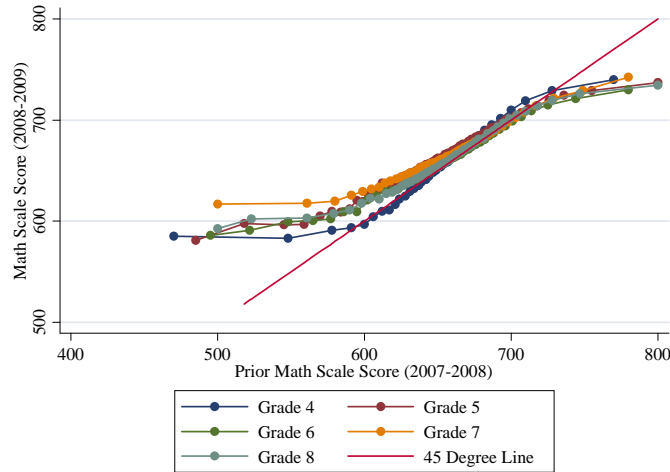
Ms. Jones avg growth = 50 points

Similar Students as Benchmark



The Importance of History

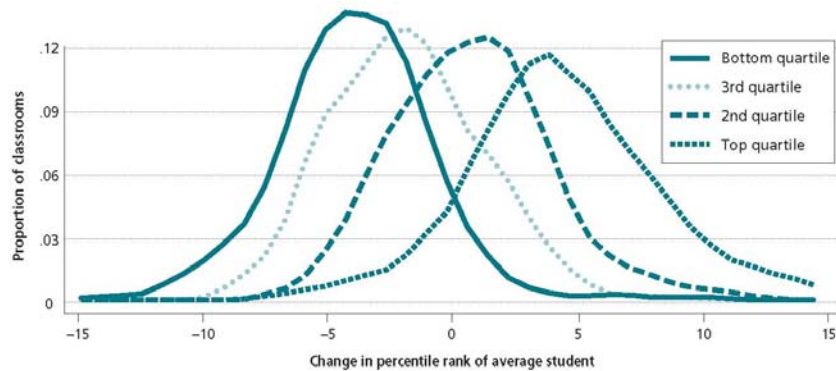
- The best predictor of student achievement growth is past achievement



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How Predictive is Value Added?

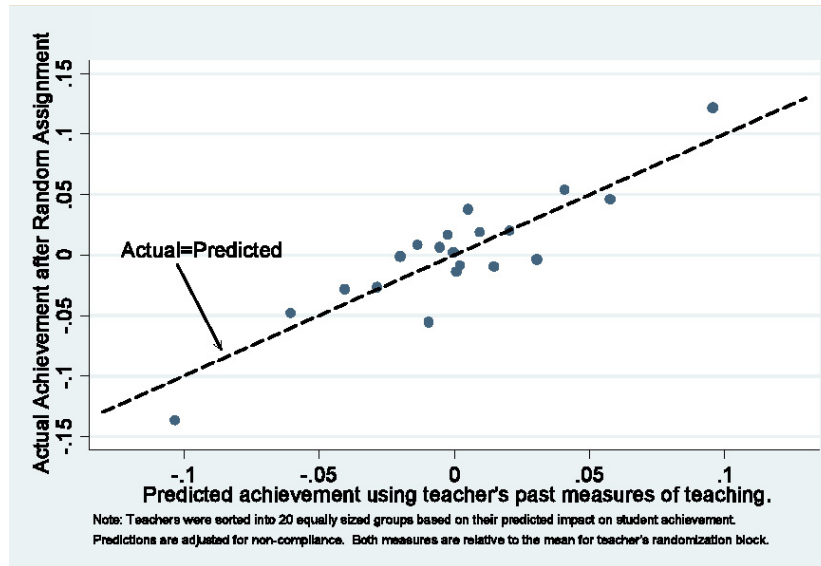
- Teacher impacts on math in third year, separated by VA ranking after two years



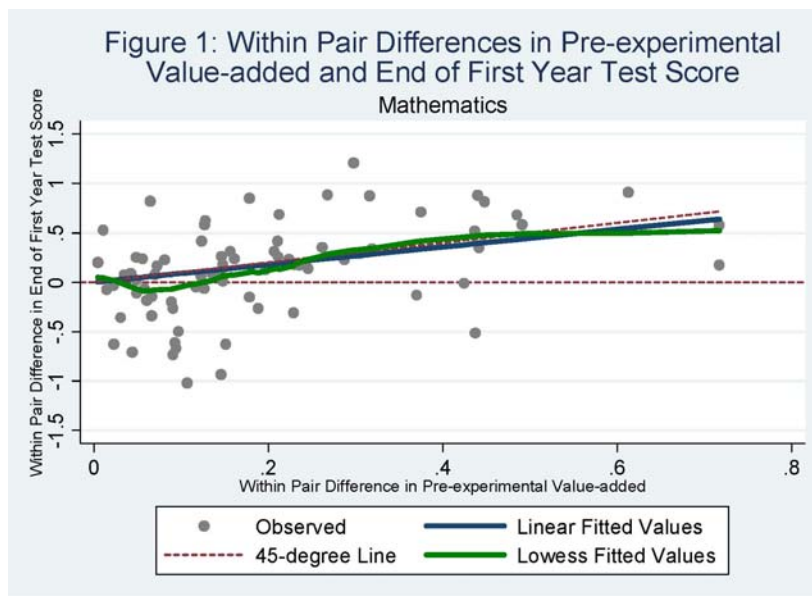
Gordon, R., Kane, T., Staiger, D. (2006). Identifying effective teachers using performance on the job. *Brookings Institution Hamilton Project Paper*.

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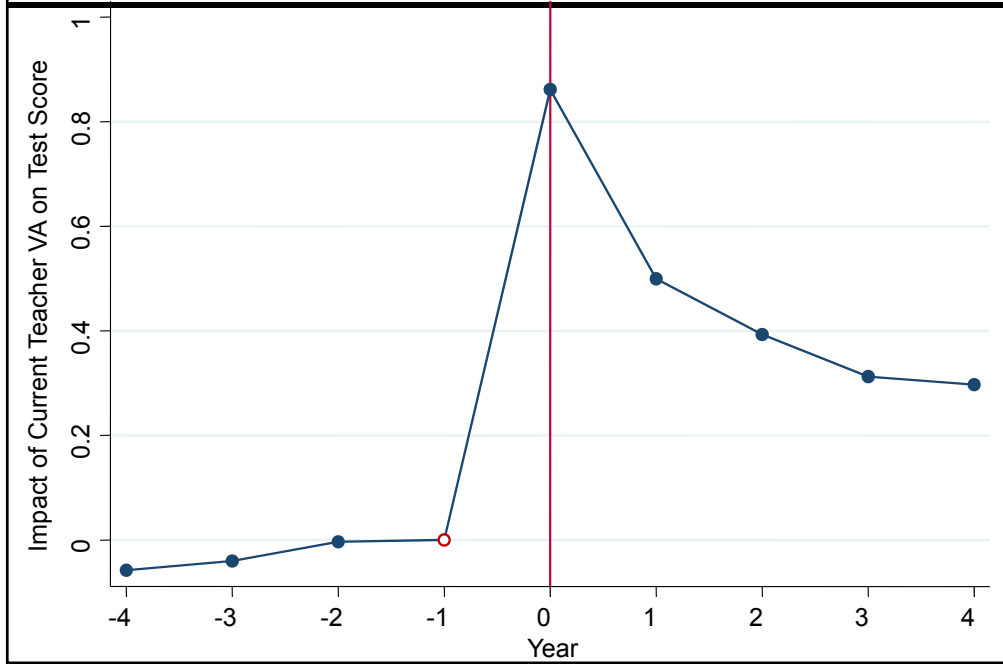
Testing the Validity of Value-Added



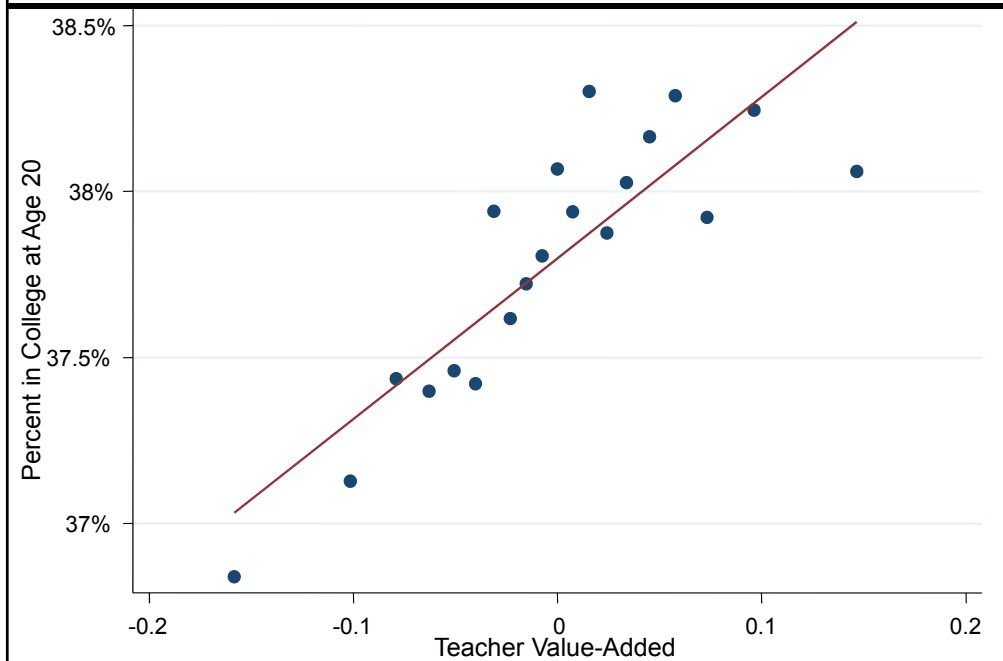
Earlier Test on Random Assignment



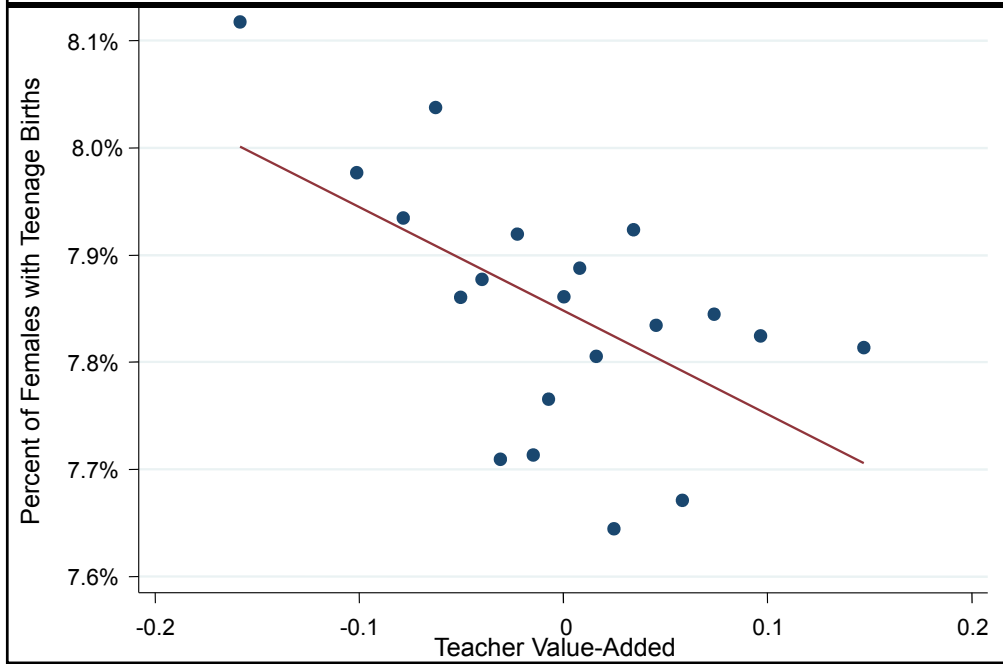
Lasting Gains from High VA Teachers



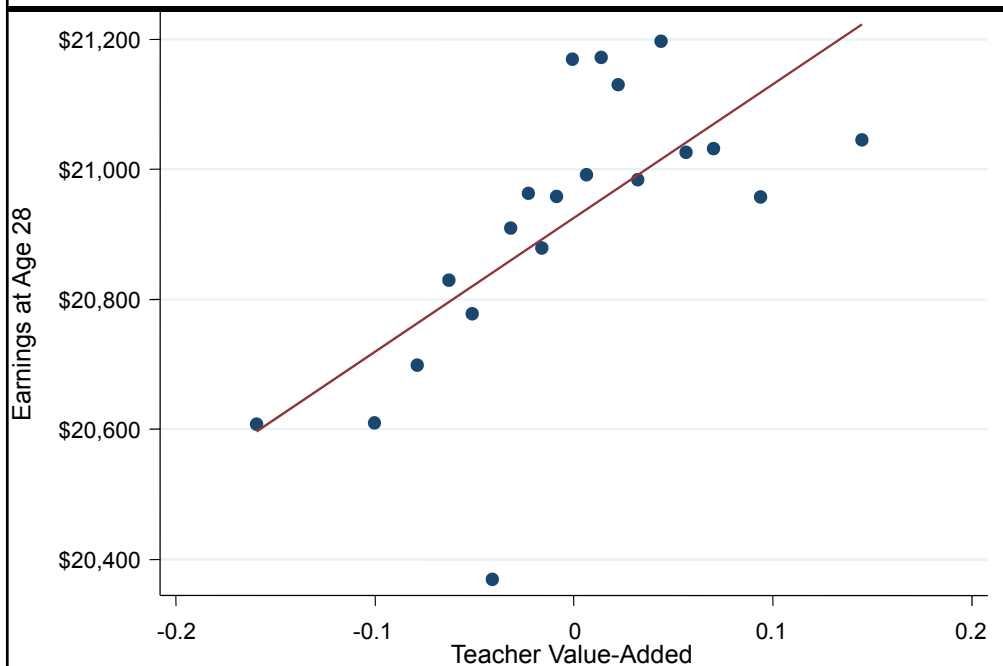
Lasting Gains from High VA Teachers



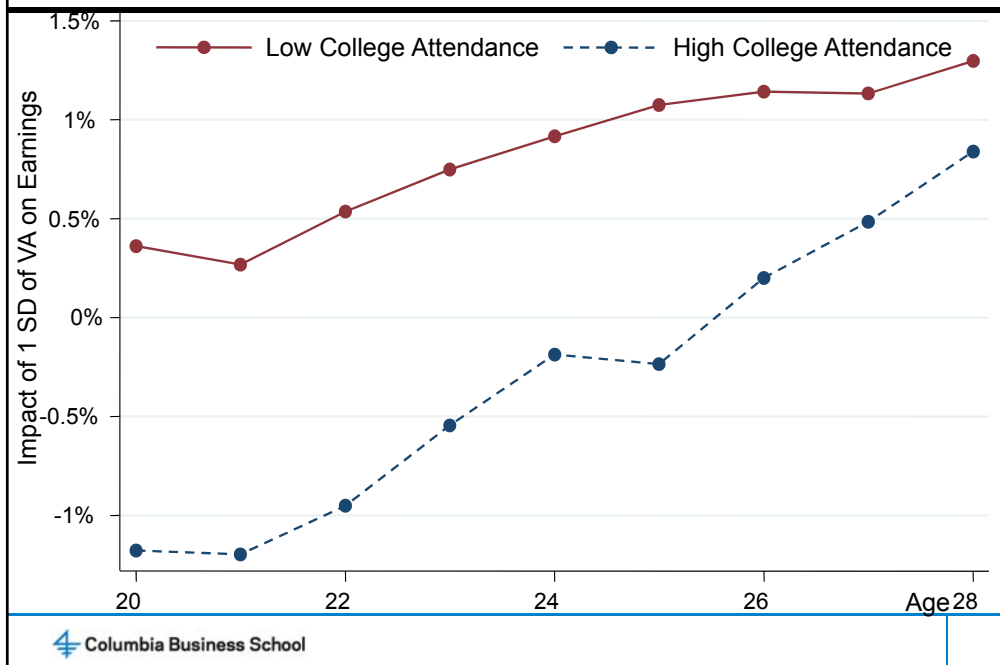
Lasting Gains from High VA Teachers



Lasting Gains from High VA Teachers



Impacts on Earnings Over Time, by School College-Attendance Rates

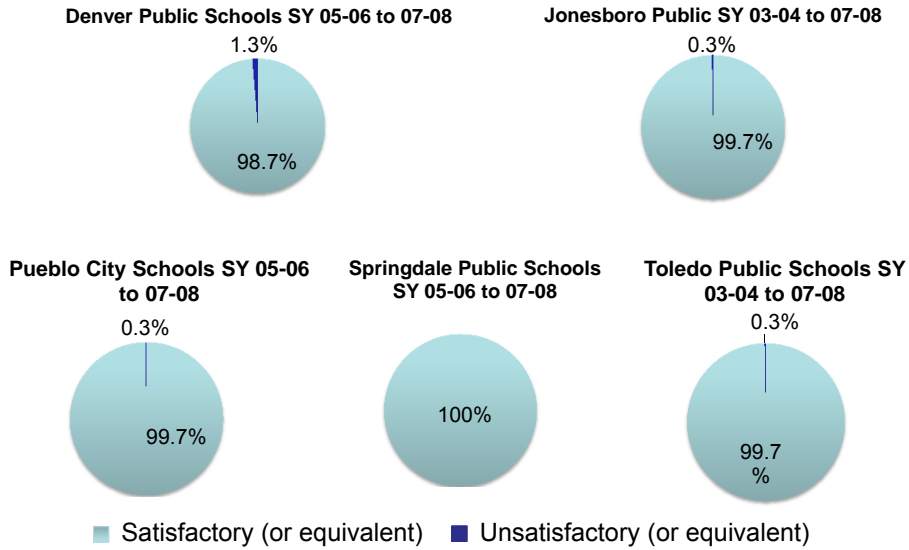


Value Added is Like a Batting Avg.

Table 1. Ten Players with the Highest BAs in 1998

	1998
Larry Walker	.363
John Olerud	.354
Bernie Williams	.339
Mo Vaughn	.337
Eddie Perez	.336
Dante Bichette	.331
Albert Belle	.328
Mike Piazza	.328
Eric Davis	.327
Jason Kendall	.327

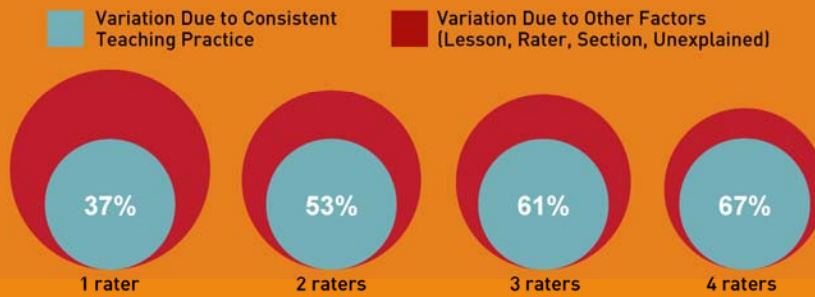
Current Observation-Based Evaluations Do Not Differentiate Among Teachers



Weisberg, D., Sexton, S., Mulhern, J. & Keeling, D. (2009) *The Widget Effect: Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness*. New York: The New Teacher Project.

Gates MET Project

Figure 9. Multiple Observations Led to Higher Reliability

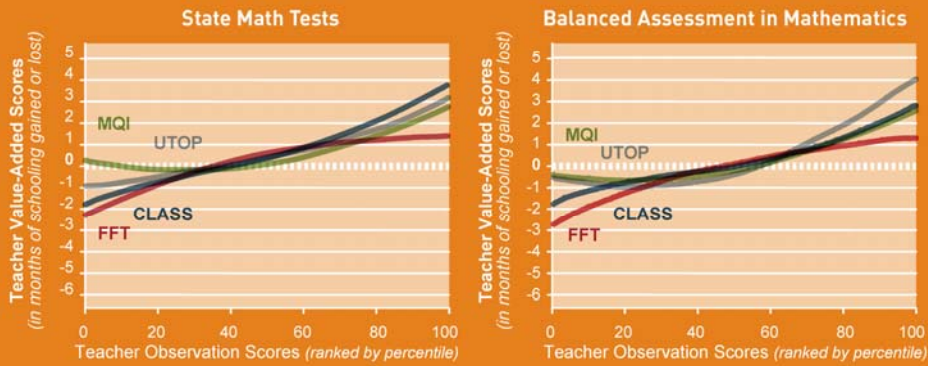


Each rater is observing a different lesson

NOTES: The number in each circle is the percentage of variance in average FFT scores attributable to teacher effects. The area of the inner circle represents the variance in aspects of teachers' practice that is consistent across lessons, while the area of the outer circle adds in variation due to other factors, such as rater disagreement and lesson-to-lesson variance. As the number of observations increases, the variance due to consistent teaching practice remains constant, while the variance due to other factors declines, as it is averaged over more observations.

Gates MET Project

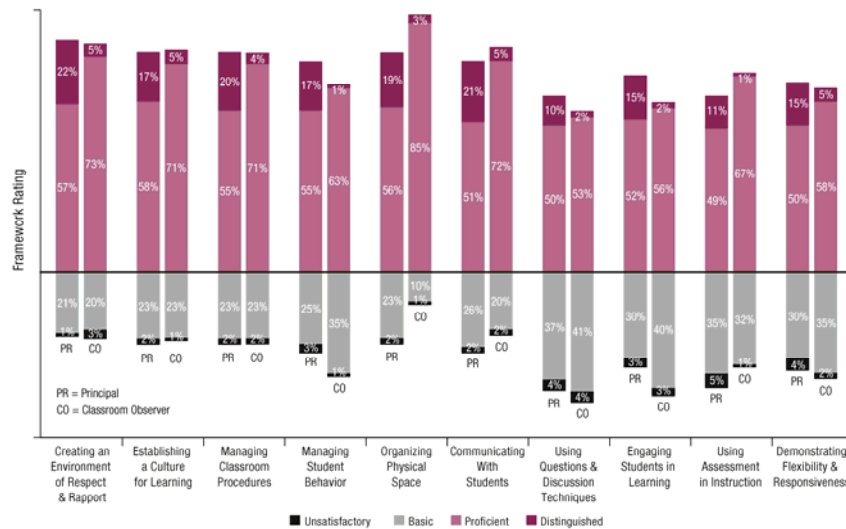
Figure 3. Teachers with Higher Observation Scores Had Students Who Learned More



Chicago Effective Teaching Pilot

FIGURE 2

Principals and observers gave similar proportions of Unsatisfactory and Basic ratings in most of the components, though principals were more likely to call practice Distinguished



Chicago Effective Teaching Pilot

FIGURE 1

Teachers with higher Framework ratings had higher value-added measures

