

Evaluation 101 in 5 Minutes

- Have a theory of change to focus your work
It helps to know the desired outcome and how you want to get there
- Be clear about what you want to know (questions to answer)
- **Build “sufficient” evidence to answer the questions**
“Sufficient” depends on who needs the answers (audience)
- Identify data that can help answer your questions
Types of data include opinions, observations, documents, pictures, numbers, statistical analysis, other studies; the more evidence you have and the larger your N, the greater confidence you will have in the results
- Data collection methods have pros and cons
Surveys, focus groups, interviews (formal/informal), case studies
- Understand biases, use credible sources
- Don't over-generalize — contexts differ, so will the results
- Don't let perfect be the enemy of good enough

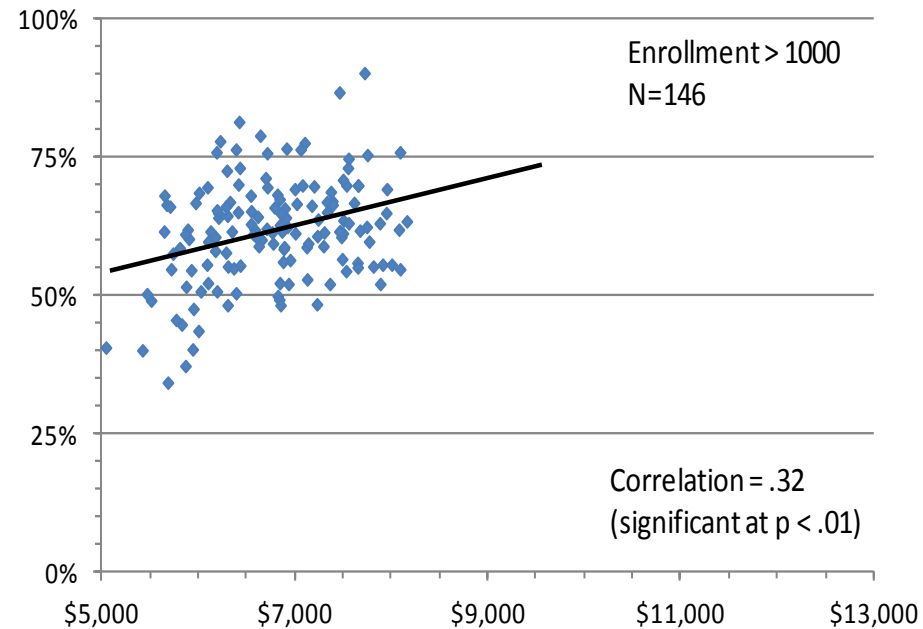
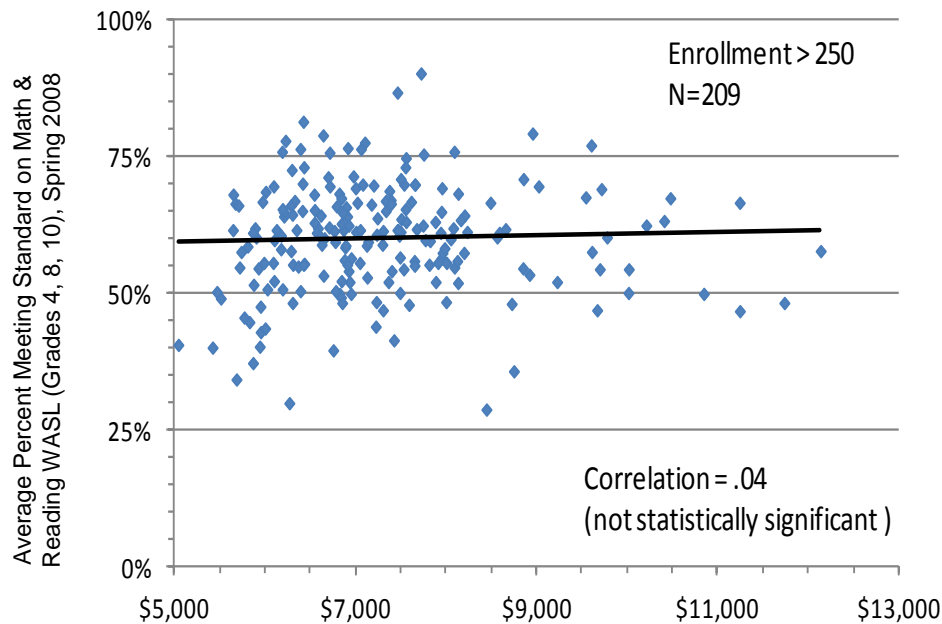
Guiding Principles of Evaluation

- Seek the truth, not to reinforce our perspective
- Knowing the “truth” and having “proof” in the social sciences is much more difficult than in the physical sciences
Physics is a “hard science”; evaluation is very hard
- Be sufficient, not exhaustive
Less is more, stop when you have enough evidence
- Formal reports should be timely, clear, objective (unbiased), reflect an understanding of the context, have conclusions and recommendations based on the facts, and reveal limitations (what is still unknown, what more needs to be done)

Data 101 in 5 Minutes

- Data can be analyzed and represented in many way
- Data and statistics can be used to “prove” almost anything
- Correlation doesn’t mean causation
- Statistical significance isn’t the same as practical significance
- Beware of outliers that distort the average (mean)
Look at the data to identify outliers, then decide what to do with them
- To understand impact/change, look at more than 2 points
Use comparison groups and multiple points before/after when possible
- Use graphs/charts to illustration a point quickly
Use a title with the message you want to convey
- Examine graph scales closely – they can distort the results
- There is no reason to treat numbers from a computer as if they were untouched by human hands
Data quality and completeness and the scope of the analysis matter

Outliers Affect the Results



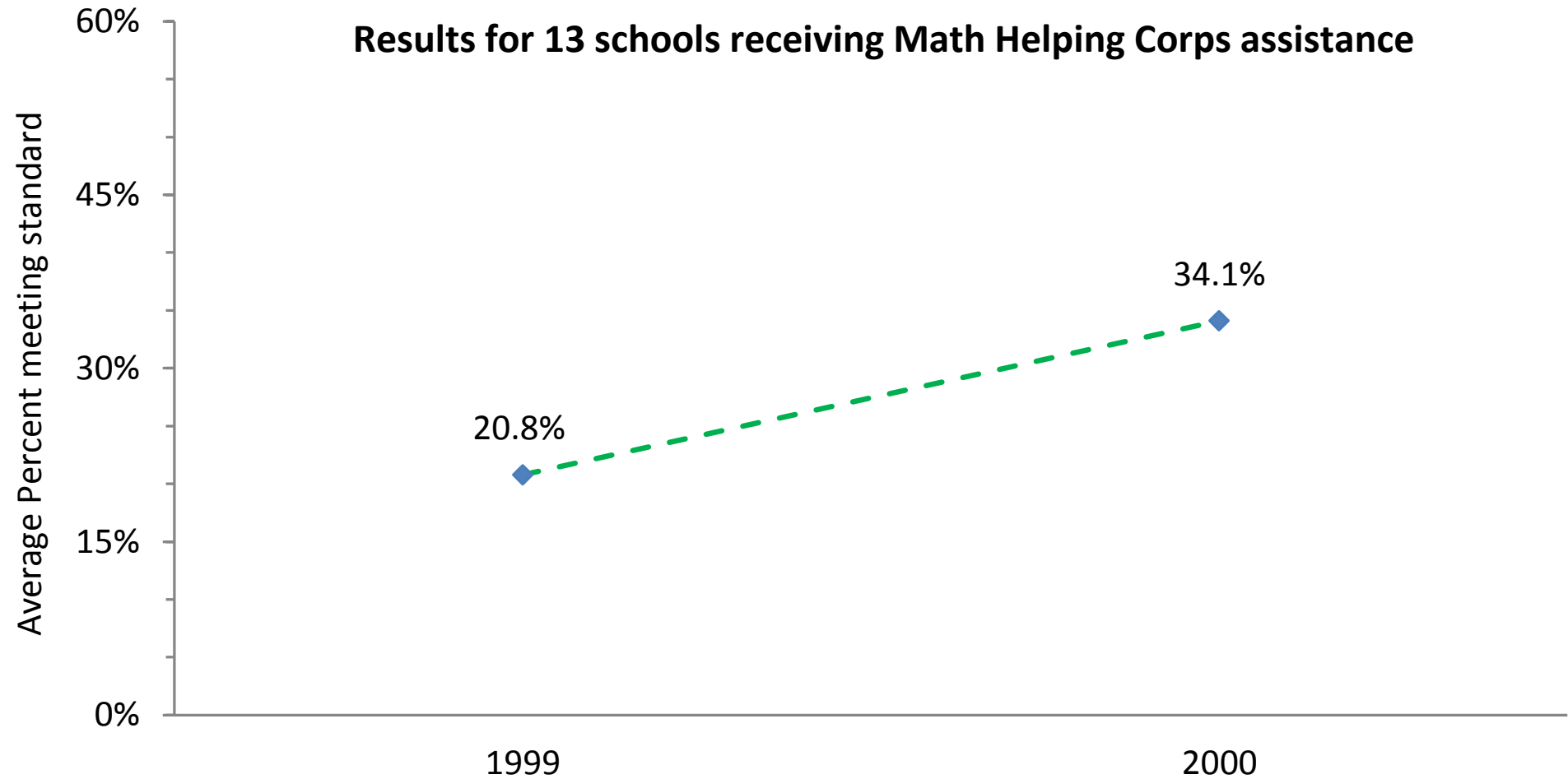
Boser, U. (2011), *Return on Educational Investment: A District-by-District Evaluation of U.S. Educational Productivity*. Washington, DC: Center for American Progress.

Used to justify no additional funding for K-12 education (Senate Early Learning & K-12 Education Committee, January 16, 2013; editorial by Senator Litzow, *Seattle Times*, February 7, 2013)

Removing small districts with very high spending per student changes the results and message.

Is this enough evidence the initiative is working?

Results for 13 schools receiving Math Helping Corps assistance



What makes this evidence better?

