

## Measuring Effectiveness of the Broadband Stimulus

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## Evaluation: Unique and Important Opportunity

### Unique

- Temporary program means no (or at least smaller) constituency with an interest in predetermined results.
- Act includes funds for evaluation.

### Important

- Can inform existing and future programs.

## What Should We Measure?

- When targeting buildout (*supply*), measure homes newly passed (wireline) or population newly covered (wireless).
- When targeting adoption (*demand*), measure new subscribers.

## Key (Broad) Criteria for Success

### Grants must not

- fund projects that would have happened anyway
- crowd out private spending

### Build Evaluation in From the Beginning

- *Ex post* evaluation of grant recipients and funded projects is insufficient.  
(Selection bias, difficult to determine if project was inframarginal)
  - Success stories do not constitute evaluation and do not prove the grant was useful.
- Just because the grantee did what it promised does not mean the grant itself was responsible.

### Evaluating Effectiveness: Gold Standard

Randomize some grants to create "treatment" and "control" groups (firms or regions).

- Precedents: Job Training Partnership Act and others

#### Method

Compare buildout in treatment and control groups.

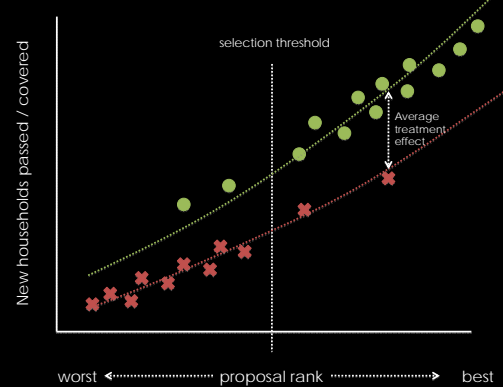
- Successful if treatment group > control group
- Not successful if treatment group  $\leq$  control group

Jaffe, Adam. 2002. "Building Program Evaluation Into the Design of Public Research Support Programs." *Oxford Review of Economic Policy*, 18, pp. 22-34.

### Evaluating Effectiveness: Second-Best (Bronze Standard?)

Track providers or areas that do not get grants.

- Creates an imperfect control group: do they continue with their proposed projects even without a grant?



Regression discontinuity design. See Jaffe 2002.

## Evaluating Effectiveness: Second-Best (Bronze Standard?)

Obtain historical buildout and investment data from grant recipients.

- Did grant affect investment and buildout trends?

## Conclusions

Don't fund projects that would happen anyway.

Be clear about what to measure (availability or adoption).

Design the program in a way that facilitates evaluation (control groups, data requirements, randomization).