



Pilots Programs to Mainstreaming: How Evaluation Can Help

THE
CADMUS
GROUP, INC.

Linda Dethman and Anne West
The Cadmus Group

Shahana Samiullah Ph.D.
Southern California Edison

Our Talk Today

- Hope for and challenge of pilot programs
- The role of evaluation in pilots
- Lessons from evaluating three pilots
- Conclusions: ideas for doing it better



What Are Pilot Programs?



- Tools to test out:
 - New program ideas
 - New elements or markets for existing programs

What Makes Pilots Different?

Often operate with:

- More constrained circumstances
 - Small or biased samples
 - No control groups
- Less defined goals or success indicators
- Shorter time frames
- Special features
 - Different incentives
 - Greater sponsor support





What We Hope Pilots Will Do

- Reduce uncertainty for the future
- Capture good ideas, eliminate bad ones
- Transfer to a full scale program
- Provide roadmap for future programs
- PLUS: Meet their own goals



How Well Do Pilots Deliver?

Evidence is mixed

- Especially as roadmaps for the future
- Needs and policies change
- Alignment of program design and evaluation
- How to improve?

Where Evaluators Get Involved

- At pre-launch: evaluation is part of the pilot design (rare)
 - Best time for the full range of options
- At post-launch: pilots are designed and/or underway (usual)
 - Still can produce useful results

What Can Help: Evaluability Assessments



Systematic method to:

- Define problem and research objectives
- Identify needed data
- Specify how data will be collected and used

What Can Help: Experimental and Quasi-Experimental Designs



- Both...
 - Provide needed framework
 - Compare two groups to establish a causal or correlational relationship between the program intervention and the measured outcomes



Experimental vs. Quasi-Experimental Designs

- Random Assignments
- Controlled number of non-treatment variables
- Ability to generalize results to real situations may be limited
- Non-random assignment
- Cannot control many of the factors that can affect the program results
- Makes generalization more apparent

Lessons Learned From Three Pilots



1. LED Lighting Pricing Trial

- Upstream Rebate program pilot
- Goals:
 - Determine best approaches for incentives
 - Optimal price points
 - Price elasticity
 - Assess consumer interest in, and awareness and affordability, of LED lighting

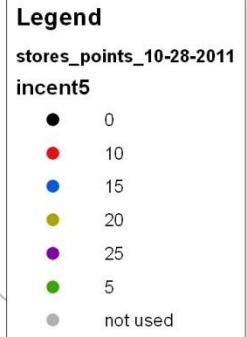


LED Pricing Trial Design

- 120,000 units in 64 stores
 - Quasi-experimental design
 - Five price points: \$5-\$25
 - Key variables: income and geographical area
 - Price levels assigned to individual stores, so each price level represented in all income areas



- ✓ Selecting store-and-incentive combinations
- ✓ Modeling sales behavior
- ✓ Baseline data requirements for treatment and control stores



0 5 10 20 30 40 Miles

LED Lighting Pricing Trial

Lessons Learned

- Consider barriers to program design
 - Retailer cooperation
 - Data access
- Plan for lead time
- Plan for alternatives



2. Appliance Recycling Program (ARP) Retailer Pilot

- Incentive + free removal of inefficient refrigerators and freezers + Recycling
- New wrinkle for 18-year-old Program
 - Retailer ARP targeted purchasers of new refrigerators
- Standard ARP and Retailer ARP operated simultaneously



ARP Retailer Pilot Design

- Hypothesis: two versions would have different effects in:
 - Haul-away volume
 - Cost-effectiveness
- Challenge:
 - Confounding effects of retailer's existing recycling effort
 - Disaggregating the different effects on the volume of recycling



ARP Retailer Pilot Design

- Quasi-experimental design with matched control group
 - Nine(9) treatment stores and six(6) comparison stores
 - Needed haul-away and sales data from treatment and control stores



ARP Retailer Pilot – Lessons

- Be ready with alternatives
 - One retailer lacked pre-launch haul-away data
 - Needed to perform on-site, manual review of records to measure haul-away volume for the subject store
- Build in time to collect data
 - Securing access to the retailer baseline haul-away data delayed pilot



3. BC Hydro: Workplace Conservation Awareness Pilot

- Invited largest C/I customers to create work environment to support energy-efficiency
- Participating organizations (n=40) receive \$1,000 to \$15,000 annually to fund program activities



Workplace Pilot – Evaluation Design

- Evaluation Goals
 - Estimate the net electricity savings
 - Determine if energy savings from participants equal to or greater than 5% of controllable building use
 - Investigate building occupant impact on savings
 - Identify ways to improve, broaden program
- Quasi-experimental approach for impact evaluation, using a non-equivalent control group design



Workplace Pilot – Impact Evaluation Challenges

- Not clear what buildings and workers were participating
- Lack of one-to-one correspondence between electricity meters and buildings
- Rolling initiation delayed impact analysis by six months
- Construction of control group
 - Program targeted and screened participants, raising self selection bias issues
 - Unique building types



Workplace Pilot Impact Evaluation – Lessons

- Be flexible, proactive, open to alternatives
 - Did early testing of analysis approach
 - Factored in early process evaluation results
 - Expanded thinking on control group buildings
 - Match based on building characteristics
 - Use non-participating buildings from participant organizations if possible
 - Ask experts for advice on possible matches



Conclusions

- Get in early, dig deeply into design
- Be systematic but flexible
 - Do an evaluability assessment
 - Apply experimental approaches if possible
 - Do an interim or dry run analysis
- Expect the schedule to change
- Track decisions/lessons throughout
- Think throughout how to generalize, scale up
- Collaborate with program staff



Thank You!

- Linda Dethman and Anne West,
The Cadmus Group
 - Linda.Dethman@cadmusgroup.com
 - Anne.West@cadmusgroup.com
- Shahana Samiullah, Southern
California Edison
 - Shahana.Samiullah@sce.com

