

U.S. DEPARTMENT OF STATE
THIRD ANNUAL CONFERENCE ON PROGRAM EVALUATION:
NEW PARADIGMS FOR EVALUATING
DIPLOMACY IN THE 21ST CENTURY
June 8-9, 2010

Science/Technology/Trade Track

PowerPoint presentation from workshop on
Value of Program Evaluation: Case Studies

Session transcript:
<http://www.state.gov/s/d/rm/rls/rm/2010/148050.htm>



UNIVERSITY OF WISCONSIN

Energy Institute

Value of Evaluation: Case Studies Highlight Using Evaluation to Achieve Program Goals

Scott Williams, Project Assistant
Energy Institute
University of Wisconsin - Madison

Case Studies sponsored by the U.S. Department of Energy (DOE)
and the Wisconsin Public Utility Institute (WPUI)

State Department's *Third Annual Conference on Program
Evaluation in International Affairs: New Paradigms for
Evaluating Diplomacy in the 21st Century*
Washington, D.C., June 8, 2010.

Overview

- Energy Program Evaluation and Strategic Priorities
- Project Background
- 5 Case Studies
- Common Themes among Case Studies
- Closing the Loop



Energy/Environmental Programs and Strategic Priorities

Energy/environmental programs are critical to meeting governments' strategic priorities

- U.S. Dept. of Energy (DOE) Hydrogen Program
 - Climate change (reduce greenhouse gas emissions)
 - Energy security (reduce dependence on oil)
- Energy efficiency programs
 - Climate change (“low-hanging fruit” solution)
 - Energy security (reduce oil imports)
 - Economic competitiveness (save money)



Evaluations Help Programs Achieve Intended Outcomes

- Increased emphasis on evaluation by White House Office of Management and Budget (OMB)
 - Achieve intended results efficiently and effectively
 - Strengthen the design and operation of programs
- Evaluations help maximize programs' opportunities to achieve strategic goals
 - Inefficient/unproductive programs represent “lost opportunities” to achieve climate and energy goals
 - Evaluations inform decisions that increase program productivity, enhance fiscal responsibility, etc., which improve chances of achieving intended results



What Decisions are Informed by Program Evaluations?

- Evaluations provide information to inform decisions made during the critical program design, redesign, budget and planning cycles
- Decisions (examples from case studies):
 - Whether to continue a project as is or with adjustments made to further improve the likelihood of success
 - Which processes need reform/streamlining and how to do so
 - Whether to terminate an entire program area or individual projects
 - How much money to allocate to research areas and specific projects
 - Whether to redirect research of new priority areas or adjust research portfolio
 - Which sectors or segments of the population should be targeted



Project Background

- Raise the profile of program evaluation
- Show how evaluation can help improve efficiency or achieve other program goals
- Concrete examples in easy-to-read format
- Invitations sent to hundreds of evaluators to submit potential case studies
- Focus on energy and environmental programs
- Information provided via evaluation reports, performance data and interviews
- Projects were selected based on three criteria



Criteria for Case Studies

Our goal was to find case studies that fulfilled the following criteria:

- 1. Evaluation made specific observations or recommendations.**
- 2. Program took some action to implement recommendations.**
- 3. Benefits documented in follow-up evaluation or other report.**

Selected four cases plus included one previous case study developed by DOE



Case Studies

Preview of Case Study Results and Decisions Informed by Program Evaluations

- A U.S. DOE R&D program saved \$27 million dollars by conducting annual peer reviews and identifying poor performing projects, redirecting funds to more productive R&D
- A Wisconsin energy efficiency program increased CFL sales among women after evaluation found a significant gender gap in CFL sales
- A U.S. EPA pesticide program will finish a large project four years sooner than previously estimated by implementing evaluators' recommended methods to increase efficiency
- A U.S. EPA program saved 90% of a web communication budget by simplifying a web tool after an evaluation found it too complex for most users' purposes
- A Québec energy efficiency program enrolled new customers more quickly after evaluators suggested ways to streamline processes

U.S. DOE Hydrogen Program Peer Reviews

- 1. The U.S. DOE Hydrogen Program conducts annual peer reviews, using external independent expert panels, of hundreds of its projects while they are in-progress**
 - Case study looked at 695 reviews of projects conducted over five years.
- 2. After completion of the expert reviews, the following decisions were made:**
 - 82% of projects were continued (received an average reviewer rating of 3.0 on a scale 1 to 5)
 - 13% of projects were completed and not renewed
 - 5% of projects were discontinued (on average, a 2.7 rating)
 - Many (67%) of the low performing projects were continued after recommended modifications and adjustments were made to increase the likelihood of their success

Expert-Informed Adjustments and Realignment Helped Improve the Likelihood of Success

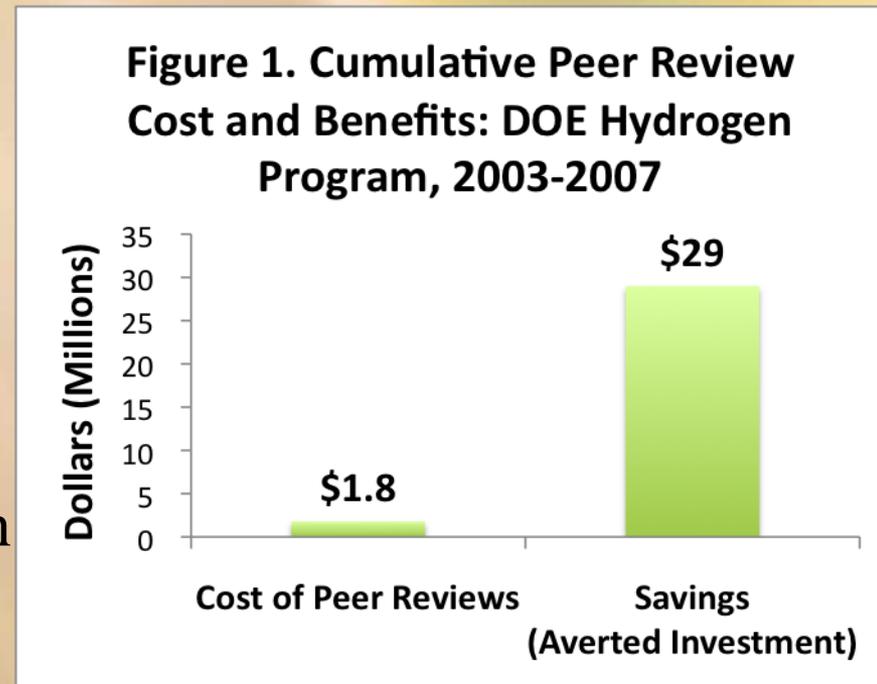
- 3. Peer-reviewed projects improved after adjustments were made following the initial peer reviews.**
 - [based on analysis pairwise comparison of mean value ratings from two separate reviews]

- Of the projects that were continued despite an initial low rating, 31 were reviewed at least once more in this case study's timeframe.
 - Of these, 81% had a higher rating at their next review.
 - On average, the 31 projects rated 2.6 at their first review, and 3.0 at the next review. (statistically significant)

Information from the Peer Reviews Helped the Program Save Millions of Dollars

4. Sizable financial savings was achieved by discontinuing poor performing projects deemed unlikely to contribute to successful mission accomplishment

- At a total cost of \$1.8 million over the years 2003-2007 to conduct 5 annual reviews of projects, the Program ‘saved’ nearly \$30 million
 - [“saved” = avoided continued investments that are redirected to higher valued projects]
 - a fifteen-fold direct return on investment in peer reviews
 - Net savings of \$27 million



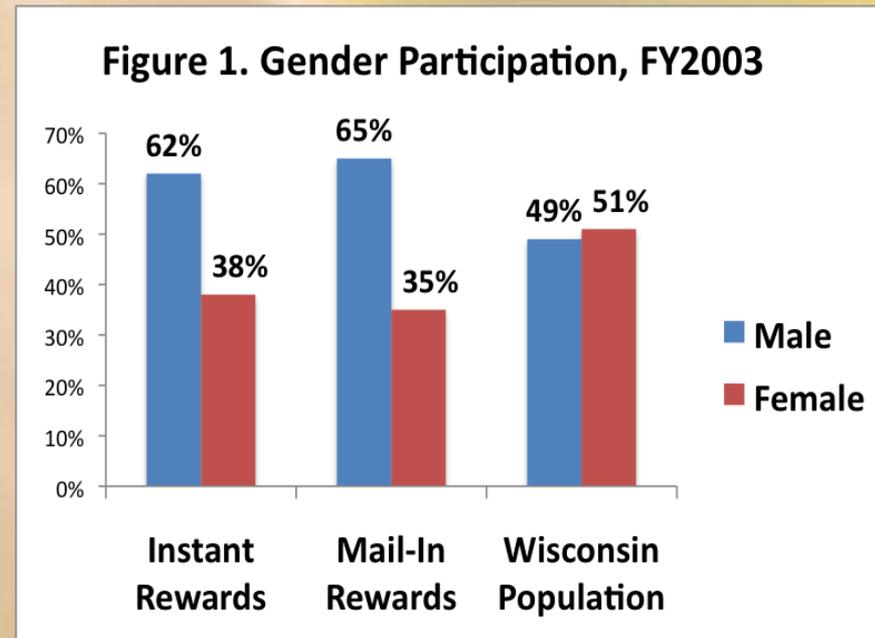
WI Focus on Energy CFL Program

1. Evaluation in 2003 found large gap among males and females participating in CFL rebate program

- Concurrent research showed women more likely to purchase light bulbs in grocery stores, drug stores, general retail, etc.
- Most of program's participating stores were home improvement/hardware stores, where men tend to shop

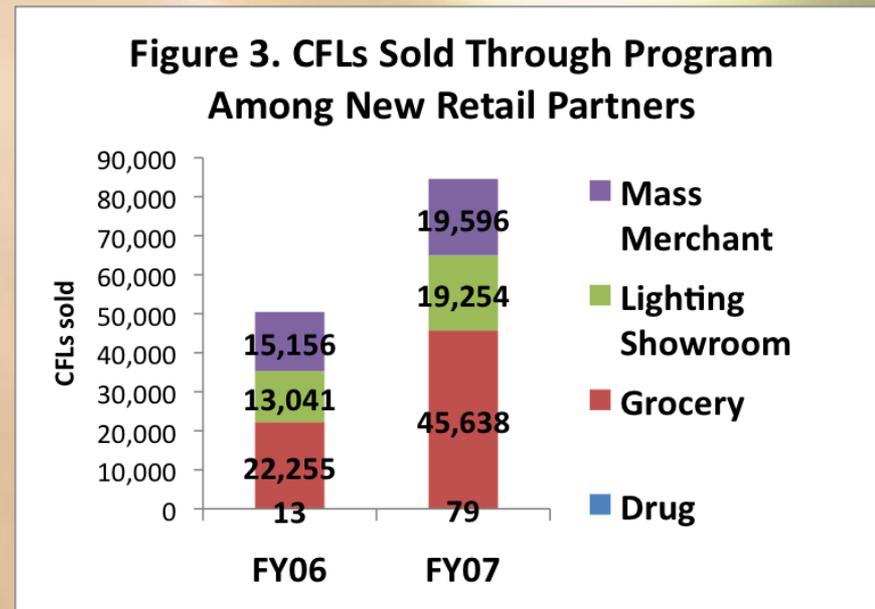
2. Based on these findings, program adjusted tactics:

- Added more retail partners
- Targeted advertising



CFL Sales Increased Among Women After Program Adjusted Tactics

3. Later evaluations found statistically significant increase in CFL sales among women compared to 2003
 - Gender gap shrank for rebate program while overall sales increased
 - Sales increased at new retail partners by 68% from 2006 to 2007



U.S. EPA Pesticide Product Re-registraton

U.S. EPA required to review all pesticide active ingredients registered before November 1, 1984

1. Process evaluation in 2005 found that the U.S. EPA Office of Pesticide Programs (OPP) was on pace to finish product re-registrations in 2018

- Five years longer than was budgeted
- Evaluators made 21 recommendations to streamline the re-registration process

2. Managers implemented 17 of 21 recommendations



Evaluation Spurs Quicker Pace, Saving Time and Valuable Resources

3. Efficiency jumped after implementation of recommendations

- Number of actions nearly doubled in less than a year
- OPP now on track to finish re-registrations by 2014
 - Four years sooner than estimated pace before program implemented recommendations
- Allows OPP to move staff to other projects sooner
- New labels applied to products faster
 - Updated health and safety information
 - Helps those applying pesticides in the field



Energy Star: Home Energy Advisor

U.S. EPA spent \$100,000 a year on online home energy auditing tool

- Collects home information, recommends products to buy to increase energy efficiency

1. Study found most participants would not use all of the web tool's sophisticated features

- Web tool offered a “good starting point,” but most would get other recommendations before buying products
- Evaluators recommended that web tool offer “options to explore” rather than detailed recommendations



Substantial Savings Achieved by Simplifying Web Tool

- 2. Evaluation prompted managers to eliminate web tool, linked web visitors to similar one by U.S. DOE**
 - U.S. EPA later developed a simplified tool
- 3. U.S. EPA's new web tool cost only \$10,000 a year to maintain**
 - 90 percent reduction in costs



Hydro-Québec's Empower Programs

Empower Programs provide financial incentives to businesses for efficiency projects

1. Evaluation recommended ways to streamline application process, among other concerns

- Customer complaints about slow application process

2. Program managers created task force to implement evaluators' recommendations

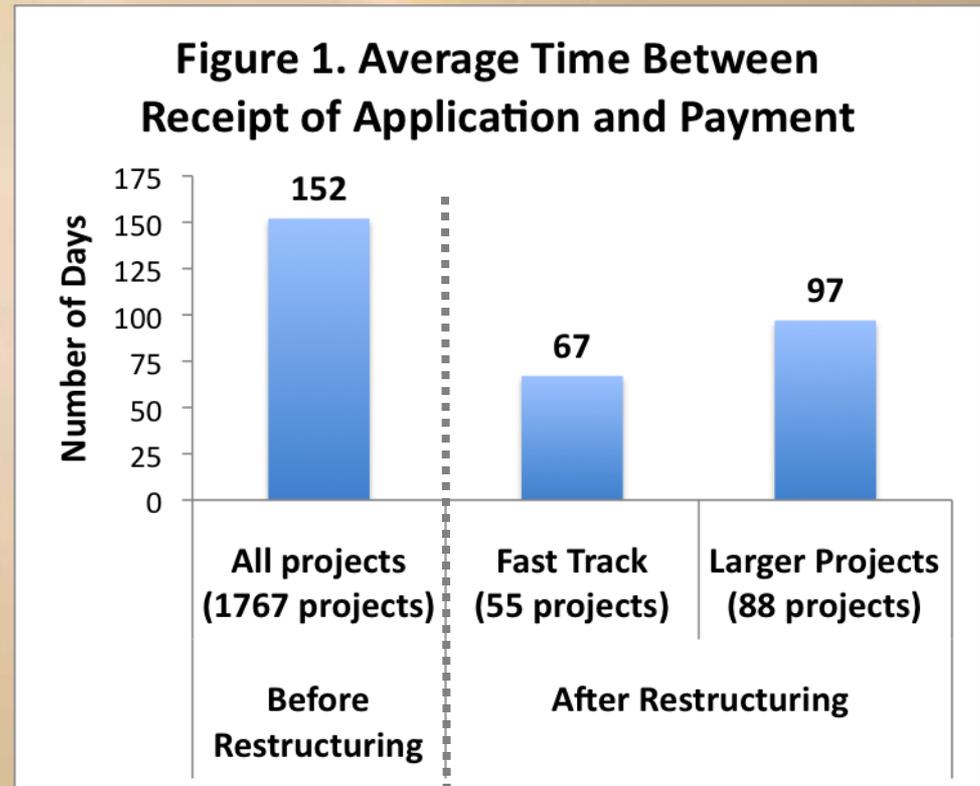
- Program staff implemented steps to improve workflow
 - Cut amount of application documents in half



Adjustments Help Programs Achieve Energy Saving Goals More Quickly

3. More customers added at a quicker pace

- Application times reduced
- Fast track procedure for standard projects
- Programs on track to meet energy savings targets
- Customer satisfaction also improved



Common Themes

How Implementers in Case Studies Found Evaluations Useful

- Detecting and quantifying problems
 - “You can’t attack the problem until you’ve quantified it”
- Resulting in actionable decisions
 - Prioritizing budget decisions
 - Eliminate or reform inefficient/unproductive elements
 - Enabling goal achievement (Higher customer satisfaction; Reaching more participants; Services better targeted; Reach program goals sooner)
- Motivating staff to improve
 - Demonstrates management is serious about correcting problems

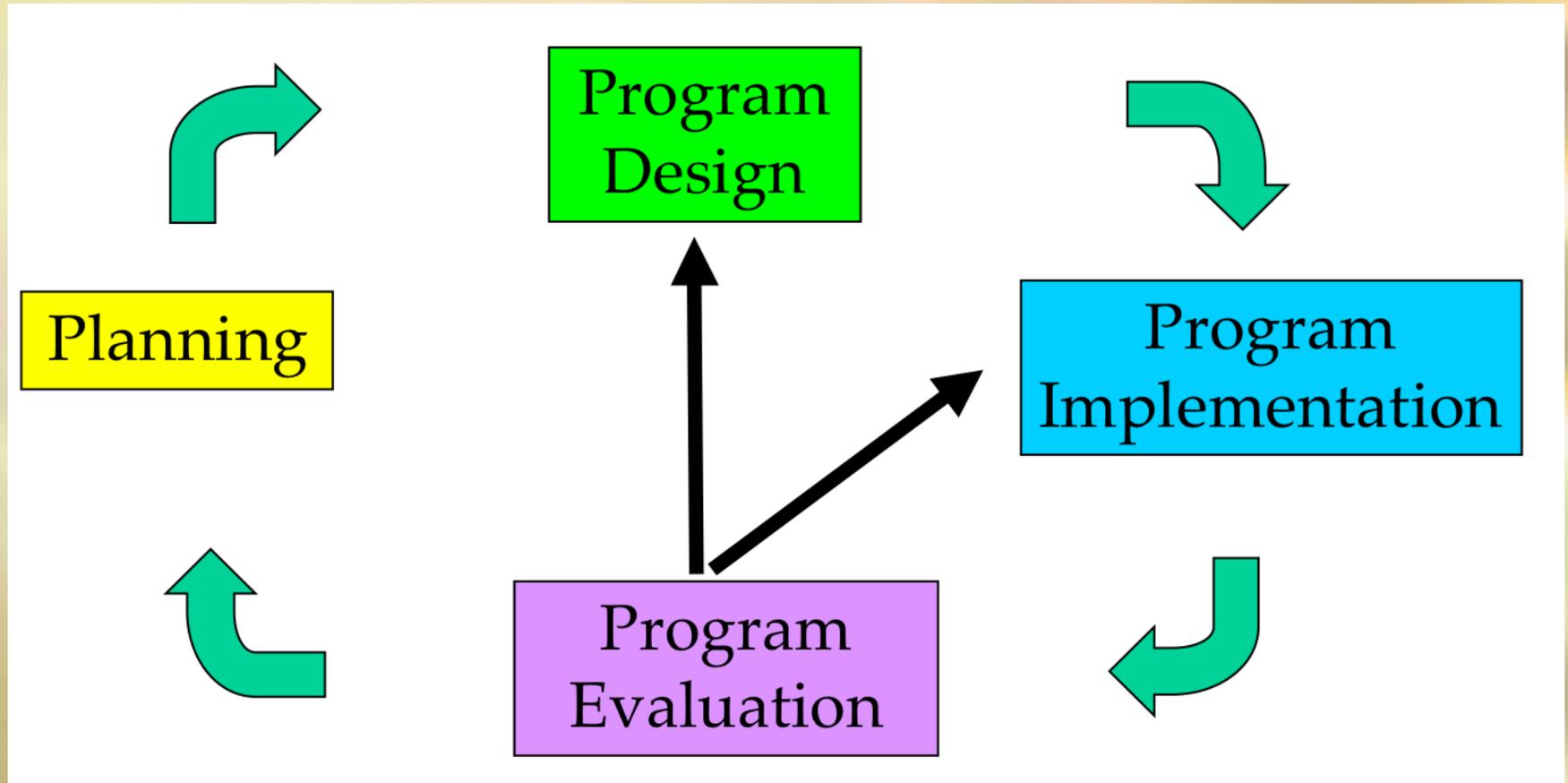


Some Keys to Success

- Communication between evaluators and implementers
 - Each side feels they are a part of the entire process
- Following up
 - Subsequent evaluations or performance measures
 - Lacking in many evaluation efforts, but important for demonstrating success
- Making evaluations “useful”
 - Providing information/recommendations that implementers can act upon

“Closing the Loop”

-- Evaluating, Implementing Recommendations, Following Up --



Concluding Thoughts

- Evaluations are important for energy programs' success
 - Help achieve intended results efficiently and effectively
- Both evaluators and implementers have incentive to show success of decisions informed by evaluations
 - A matter of following up
- Communication and program redesign are continuous processes
 - Not a one-time lecture, but an ongoing conversation
- “Lost opportunities” to achieve climate and energy goals via policies and programs are avoided when we close the loop by **evaluating, implementing recommendations, following up.**





UNIVERSITY OF WISCONSIN

Energy Institute

Scott Williams, M.P.A.

Project Assistant, UW Energy Institute

University of Wisconsin - Madison

608.890.2199

spwilliams@wisc.edu

Thanks to:

Jeff Dowd, U.S. DOE, Office of Energy Efficiency & Renewable Energy,
PBA Program Evaluation Lead;

Gretchen Jordan, Sandia National Labs; and

Cara Lee Mahany Braithwait, Wisconsin Public Utility Institute