



Better Buildings Neighborhood Program Data & Evaluation Peer Exchange Call: Extracting and Using Data from Tracking Systems

Call Slides and Discussion Summary

October 11, 2012

- Call Logistics and Attendance
- Discussion:
 - Do programs have any lessons learned, success stories, or barriers with regard to extracting and using data, particularly for evaluation purposes they would like to share?
 - Are there any programs conducting ongoing process evaluations or ones conducting impact assessments using detailed data?
 - Are any programs using data for purposes other than tracking progress and conducting evaluations?
 - What impact data is needed for the national evaluation and what ongoing data collection is useful for market effects and program process?
 - For any programs that do not have a data system already set up, what could be done for the remainder of the program?
 - What other questions or concerns do you have with regard to extracting and using data?

Participating Grant Programs

- Austin, TX
- Boulder County, CO
- Chapel Hill, NC
- Chicago, IL
- Cincinnati, OH
- Maine
- Michigan
- Missouri
- Phoenix, AZ
- Portland, OR
- San Jose, CA
- Seattle, WA
- Southeast Community Consortium
- Wisconsin

- Programs are using a variety of established and modified systems to receive and track their data, including:
 - Seattle, WA had EnergySavvy build an IT platform that walks homeowners through the process of the upgrade and collects the data that the program needs for DOE reporting and evaluation. This system allows Seattle to track the timing of when customers move from one stage to the next.
 - Arizona State University centralizes all of Phoenix's data in a secure SQL database which they can manage, analyze, and distribute. Information comes in as Excel spreadsheets and some SharePoint databases. Data from the utility (1000+ customers) comes in separate Excel spreadsheets with 10 customers per spreadsheet. ASU collates these data into one spreadsheet and uploads them to the SQL server.
 - ASU created all the tables in the SQL server database; there are about 50 with lookup tables for different types of measures.

Data Tracking Systems (Cont.)

- Programs are using a variety of established and modified systems to receive and track their data, including:
 - Austin initially used manual entry to input data into their databases. To create a more accurate, efficient process they teamed up with other energy efficiency programs in Austin to develop an automated tracking system. Austin ensured that the database has the ability to expand and that the inputs are standardized for easier matching later on.
 - Missouri uses a customized version of WebCATS, a client-tracking software. WebCATS allows Missouri to produce an Excel report to send to DOE and their Department of Agriculture. They pay a fee to use this software, so are looking into ways to transfer the data into Access or Excel.
 - Several programs use Salesforce for data tracking, including Cincinnati and Kansas City.
 - Transforming the data out of this system into the BetterBuildings format can be a laborious process.
 - Salesforce allows cross-checking of data with other databases (e.g., the financing system).

Managing Data with Multiple Sources/ Partners



- Many programs require coordination of data between multiple partners and often from multiple sources.
 - The Phoenix program consists of the City of Phoenix, Arizona State University, and the utility. All three share data among each other, with ASU managing the data.
 - The partners signed a memorandum of understanding and non-disclosure agreements to share the utility data from the beginning. The utility was concerned with security, so ASU had to demonstrate secure storage and explain the processes up front.
 - The utility sends the data in batch format quarterly; originally, they sent it monthly but that was burdensome.
 - Phoenix wanted all the data to be in one format in a central repository (SQL server) to make it easier to share and analyze.
 - Seattle partners with Washington State University's Extension Energy Program, which manages all the data and will use the data to conduct an evaluation.

Managing Data with Multiple Sources/ Partners (Cont.)



- Many grant programs require coordination of data between multiple partners and often from multiple sources.
 - Michigan has been working for several years to obtain consumption data from the utility and should have that in batch format soon. Also in partnership with the program, Michigan State University surveys participants and non-participants after each neighborhood sweep to determine the characteristics of those who are more likely to participate or not.

- Programs manage access to their data, including removing identifying information when sharing.
 - Phoenix allows only limited access to the raw data and strips out identifying information; they set the geography in general terms.
- It is best to use ID numbers for tracking instead of addresses, as those can change over time. It is important to have one ID per project and one for the building to allow aggregation of multiple projects within the same building over time, and to keep these IDs consistent through all systems.
 - Phoenix set up this process at the beginning. The City assigns the ID and that ties all the data together. The utility sends the data tagged with the ID.

- Clean data and data integrity is integral to using the data for assessment and evaluation. This can be supported by setting up systems early, being consistent with data entry and data terms, collecting and inputting complete information, using data quality checks, and using automated tracking systems.
 - Cincinnati has informal spreadsheets for assessment and retrofit data. They had a lot of records on paper which were not always complete and required manual data entry when they transitioned to software. The paper records had a “date” field, but it was not clear if that meant date paid or date completed.
 - Austin started with paper forms and manual entry into databases which required data cleaning later on. They now use an automated data tracking system into which contractors can input project data electronically.
- Think about other uses for data ahead of time.
 - Missouri’s program knew up front that they wanted to capture the data in such a manner that after the program is over, the University of Missouri would be able to use it for educational purposes and curriculum development.

Using Data for Evaluation

- Research Into Action is conducting an evaluation on the national program. They are reaching out to grantees to obtain specific project data and will take as much data and in whatever format they can obtain it (Excel or CSV is ideal).
- Maine is conducting a multi-stage evaluation for their grant and loan program.
 - This includes a third party assessment of best practices in financing across the country and a survey of program participants and contractors to obtain information about the loan program.
- Seattle is conducting a series of process evaluations to gain insight into performance and how to tweak the program in the coming months to make it more successful.
 - WSU Extension Energy Program, who manages all the data, is performing this evaluation.

Using Data for Evaluations (Cont.)

- Austin has completed its own impact evaluation to determine how actual savings compared to on-bill savings.
 - The utility is running the program, so it is easier to get access to the building data than for most programs. They also have archived data about homes to draw from.
 - It is important to obtain anything you might need from the customer upfront (e.g., release form).