Title: Planners do it, implementers do it, even evaluators should do it: utilizing segmentation to assess program performance

Everyone has reservations about using self-report methods to estimate net effects. Yet we keep using it, usually exclusively, to do just that. Alternatively, it is also getting more and more difficult to find good comparison groups that will be the basis for the counterfactual. Fortunately, there is an entirely different approach to estimating net savings that avoids the most objectionable features of self-reported NTGRs and the most difficult aspects of comparison groups.

This approach is Evaluation by Segmentation, but it really involves more than just evaluation as it becomes a tool for program design as well. Segmentation and propensity scoring are becoming very popular in our field, but often overlooked is the fact that there are more free riders in some segments than others. It is only logical that people who are diligent about living as green as possible are more likely to adopt energy-efficient behaviors without incentive or prompting than people who are not at all concerned about the environment. Those who have tight budgets will have a different implementation rate than those with very high incomes and very high usage. Our firm is using an approach that explicitly uses these considerations to help program planners and implementers think strategically about their targeting and messaging; and for evaluators to assess net effects without relying solely on asking participants what they would have done if the program were not available.

This approach hinges on establishing a naturally-occurring rate of energy-efficient behaviors for each segment. The net effects of a program would be found in the incremental participation rates (and resulting savings) that rise above the naturally-occurring rates. This is the fundamental principle of this approach, though it can be implemented in more than one way. Any method based on this approach has to account for the fact that segmentation does not universally describe all members and even highly motivated people do not always act in the most energy-efficient way. In fact there are several issues that have to be addressed in taking this approach, and they will be detailed in our paper, along with two methods of accomplishing Evaluation by Segmentation.

If program planners understand their customer segments, their motivations, their barriers, and what their free-ridership would likely be, they can choose either to focus on increasing energy-efficient behaviors in the high-free-ridership segments (thus possibly increasing gross savings) or to focus on the more difficult segments with messaging appealing to them specifically, thus producing more net savings, even if the gross savings may be lower than in the high-free-ridership segments. This paper will present a fresh approach for estimating net savings that is firmly grounded in social science methods. Relevant data are currently being collected in two states and results will be available before the end of the year.


Here is how I categorize the paper using this year's categories.


## Evaluation Area

Impacts
Markets
Process
Potential

R&D
Other

**Sector**

Residential
Commercial
Industrial
<mark>Multi-Sector</mark>
Other

**Focus**
Findings
<mark>Methods</mark>
Policy
Other