

ILLUME

ISN'T IT ALL BEHAVIOR CHANGE
ANYWAY?

Anne Dougherty, Founding Advisor

ILLUME Advising, LLC

This Work Supported By:



U.S. DEPARTMENT OF
ENERGY

Michael Li



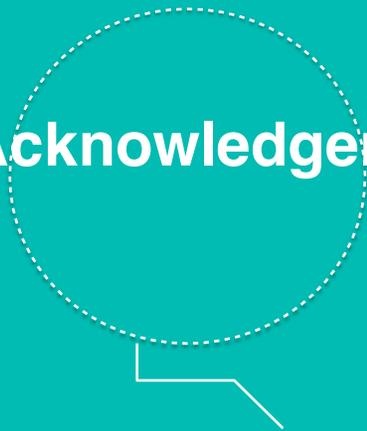
Anthony Fryer, Jessica Burdette

ILLUME



Anne Dougherty is an Advisor and Co-Owner of Illume Advising LLC. Anne brings over a decade of experience in social science-driven research techniques. Anne is a skilled program design, research, and evaluation consultant specializing in the human dimensions of energy resource management with particular expertise in emerging programs, behavioral programs, new products and services, and customer-facing smart grid technologies.

Anne Dougherty, Founding Advisor



Acknowledgements

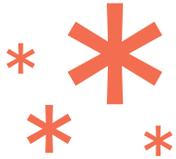
DOE (and CARD) reports prepared by:

- Anne Dougherty, Founder
- Dr. Courtney Henderson, Senior Evaluation Advisor
- Amanda Dwelley, Directing Advisor
- Mallika Jayaraman, Research Coordinator

with subcontractors to CARD report:

- Dr. Edward Vine, Staff Scientist, Lawrence Berkeley National Laboratory
- Dr. Susan Mazur-Stommen, Founder, Indica Consulting

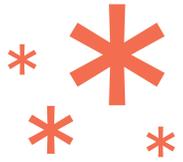
ILLUME



Webinar series

Upcoming SEE Action Webinars

- | | | |
|---------------|--|---------------|
| Oct 27 | SEE Action:
Isn't it all behavior change anyway? | 2pm ET |
| Nov 3 | SEE Action:
Benchmarking Behavioral Programs on Savings and Impacts | 2pm ET |
| Dec 2 | SEE Action:
Behavior Change Strategies in Traditional EE Programs | 2pm ET |



What is a behavior?

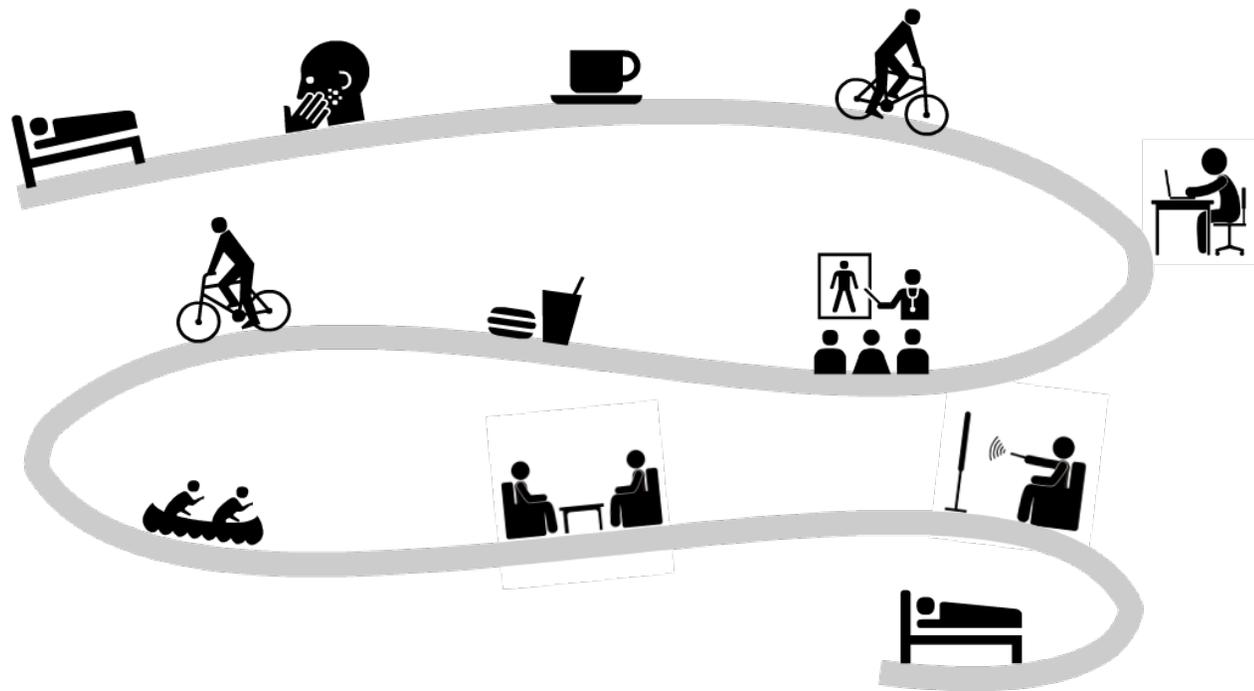
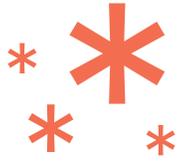
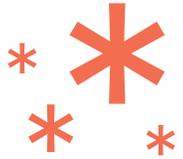


Image courtesy of Alexandra Dunn, Research Into Action



What is a behavior?





What is a behavior change?

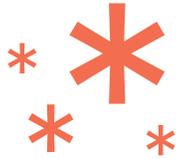
Awareness

Motivation

Knowledge

Intention





What is a behavior change?

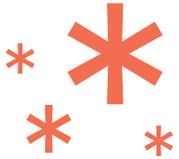
Awareness

Motivation

Intention

Knowledge



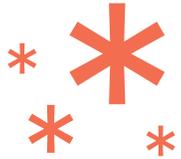


Working definitions of “behavioral programs.”

“Top of mind” definition used by those less familiar with the behavioral space: Any program that uses feedback to motivate non-rebated actions (IHDs, HERs, Online Feedback).

Practical definition of behavior PROGRAMS used by states and IOUs advancing the space (though not explicitly defined): Any program that using information and customer engagement strategies to prompt non-rebated behavior change that can be *measured* using defensible experimental and quasi-experimental methods to establish savings and to demonstrate attribution.

California working definition of a behavior program: Any program that employs under utilized behavior change *interventions* informed by the social sciences. The emphasis here is that: (1) programs are “bigger” than interventions, and (2) interventions for behavioral programs have to include non-financial strategies.

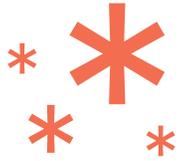


Working definitions of “behavioral programs.”

“Top of mind” definition: Any program that uses feedback to motivate non-rebated actions (IHDs, HERs, Online Feedback).

Practical definition of behavior PROGRAMS used by states and IOUs advancing the space (though not explicitly defined): Any program that using information and customer engagement strategies to prompt non-rebated behavior change that can be *measured* using defensible experimental and quasi-experimental methods to establish savings and to demonstrate attribution.

California working definition of a behavior program: Any program that employs under utilized behavior change *interventions* informed by the social sciences. The emphasis here is that: (1) programs are “bigger” than interventions, and (2) interventions for behavioral programs have to include non-financial strategies.



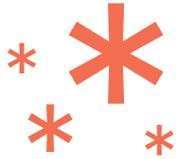
Working definitions of "behavioral programs."



An Approach



Not a Target

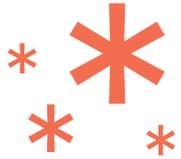


Executive order to integrate social sciences in to federally funded programs

“Section 1. Behavioral Science Insights Policy Directive.

- (a) Executive departments and agencies (agencies) are encouraged to:
- (i) identify policies, programs, and operations where applying behavioral science insights may yield substantial improvements in public welfare, program outcomes, and program cost effectiveness;
 - (ii) develop strategies for applying behavioral science insights to programs and, where possible, rigorously test and evaluate the impact of these insights;
 - (iii) recruit behavioral science experts to join the Federal Government as necessary to achieve the goals of this directive; and
 - (iv) strengthen agency relationships with the research community to better use empirical findings from the behavioral sciences.”

<https://www.whitehouse.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american>



What do we mean by social/behavioral science insights?

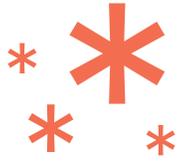
Awareness

Motivation

Intention

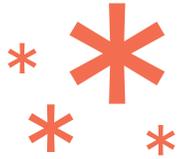
Knowledge





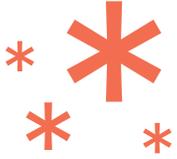
The old method





The new social and behavioral science method





Eight behavioral strategies in our definition

List based on the CA whitepaper "Paving the Way for a Richer Mix of Behavioral Programs," and the "ACEEE Field Guide to Utility-Run Behavior Programs"

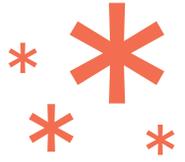
- Commitment (including goal-setting)
- Feedback
- Follow-through
- Framing (e.g., choice architecture)
- In-person interactions
- Rewards or gifts
- Social norms

- + *Multi-pronged or "stacked" strategies – use two or more strategies.*



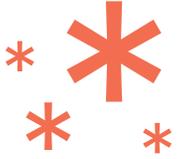
Interventions are not programs, they are strategies





Programs are significantly more involved than interventions





Eight behavioral strategies in our definition

List based on the CA whitepaper "Paving the Way for a Richer Mix of Behavioral Programs," and the "ACEEE Field Guide to Utility-Run Behavior Programs"

- Commitment (including goal-setting)
- Feedback
- Follow-through
- Framing (e.g., choice architecture)
- In-person interactions
- Rewards or gifts
- Social norms

- + *Multi-pronged or "stacked" strategies – use two or more strategies.*

“Commitment” - a program feature which aims to influence participant behavior by asking participants to pledge either in a written or verbal format to adopt an energy saving actions.

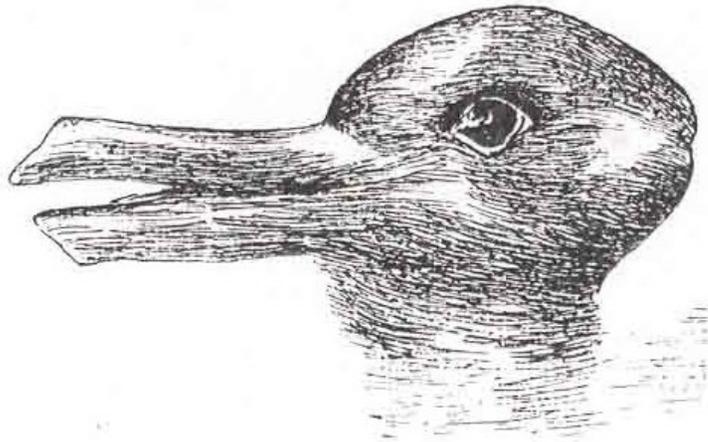




“Feedback” - a program feature which aims to influence participant behavior by providing participants with information about how much energy they use over time – or other behavioral feedback.



“Follow-through” - a program feature which aims to influence participant behavior through subsequent interactions designed to remind the customer of the message delivered during the initial interaction.



“Framing” - Includes strategies to provide energy information in a manner that takes advantage of biases, heuristics, and metaphor to influence choices in systematic and predictable ways.

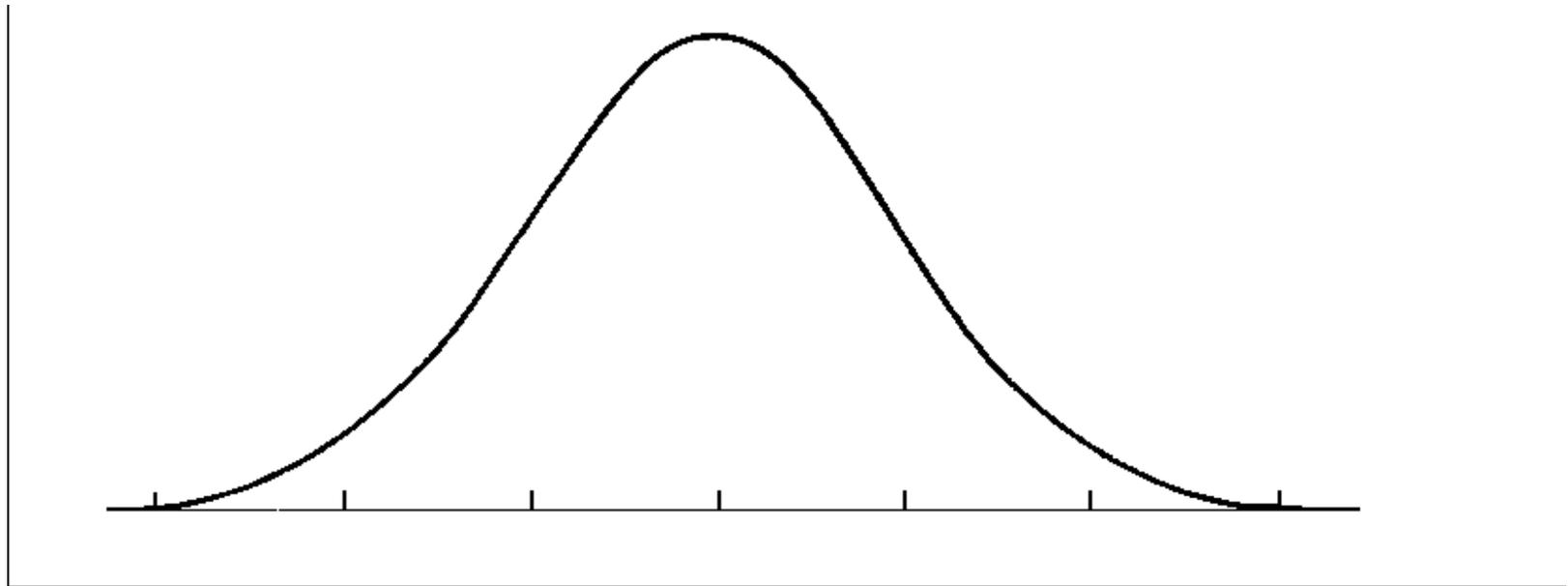
“In-person interactions” - – a program feature which aims to influence participant behavior by sending a program representative or partner to speak with a participant face-to-face

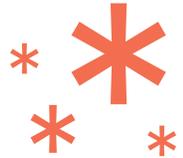


“Rewards and gifts” - a program feature which aims to influence participant behavior by providing certain benefits in exchange for completion of desired actions.



“Social norms” - a program feature which aims to influence participant behavior by comparing them to members of their community.





This just scratches the surface!

Anchoring!

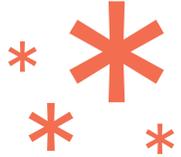
Priming!

Choice architecture!

Opt-in vs. opt out!

Reference groups!

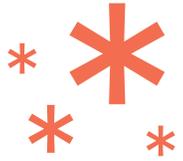
Emotional satisfaction models!



Important to note that . . .

Our definition **doesn't require that 100% of savings come from no-cost conservation behaviors.**

- For example, community-based programs that drove increases in home energy assessment and retrofits through behavioral strategies are considered “behavioral” in our definition.



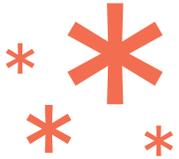
Working definitions of "behavioral programs."



An Approach

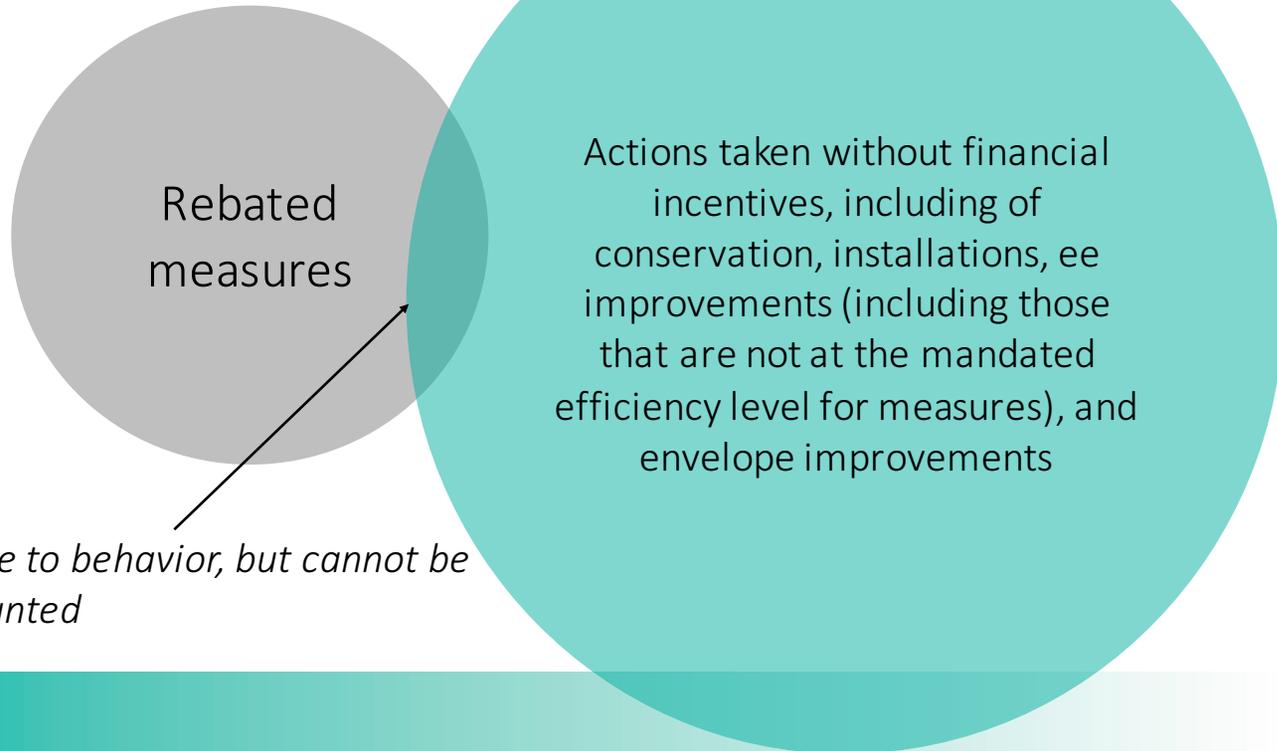


Not a Target

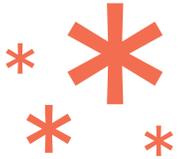


“Behavioral programs” can lead to many outcomes.

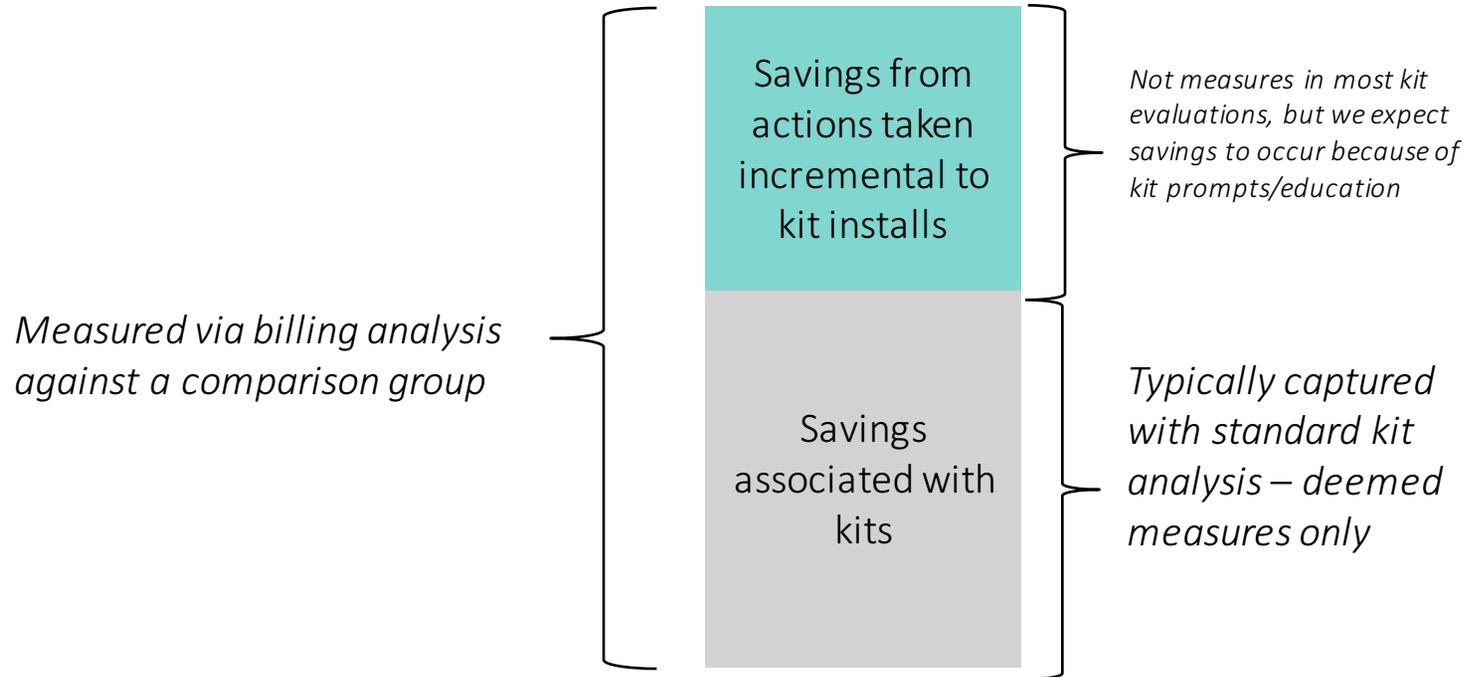
This universe of opportunity is so much greater than the rebated universe!

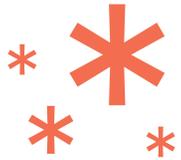


Attributable to behavior, but cannot be double-counted

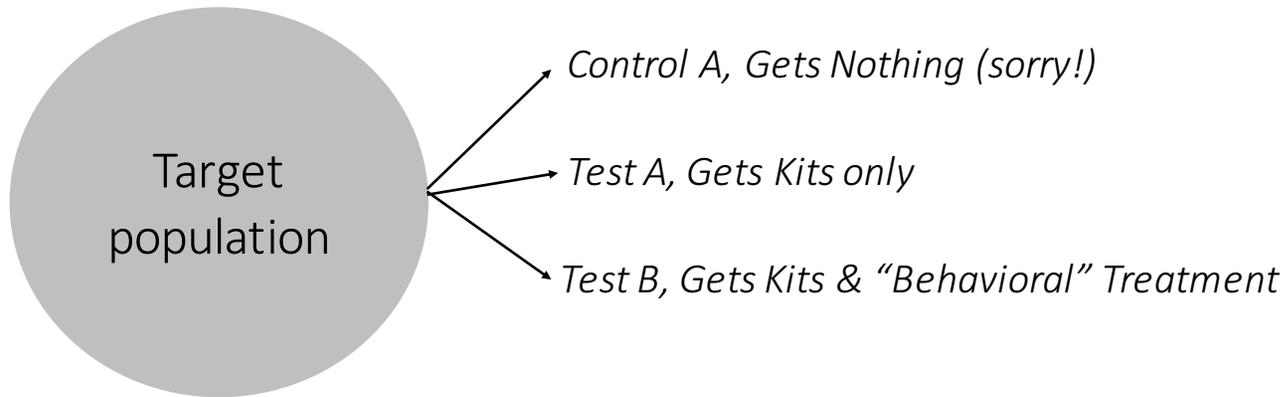


“Behavioral programs” can lead to many outcomes.

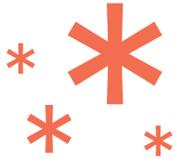




"Behavioral programs" must be evaluable!



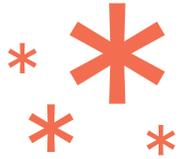
Test Matrix	Gets Noting	Gets Kits Only	Gets Kits and Behavior
Gets Nothing		Savings associated with rebated kits (including deemed and conservation actions)	Saving associated with full program design
Gets Kits Only	Savings associated with rebated kits (including deemed and conservation actions)		Incremental savings associated with behavior
Gets Kits and Behavior	Saving associated with full program design	Incremental savings associated with behavioral treatment	



Webinar series

Upcoming SEE Action Webinars

- | | | |
|--------------|--|---------------|
| Oct 27 | SEE Action:
Isn't it all behavior change anyway? | 2pm ET |
| Nov 3 | SEE Action:
Benchmarking Behavioral Programs on Savings and Impacts | 2pm ET |
| Dec 2 | SEE Action:
Behavior Change Strategies in Traditional EE Programs | 2pm ET |

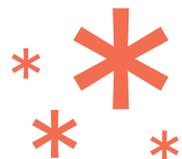


First, we developed a definition of Behavioral Programs:

- Adapt California working definition of “behavioral programs” to differentiate these programs from traditional, incentive-based DSM programs.
 - Rooted in social science: Use **social-science based** theories and behavioral intervention strategies.
 - Evaluable: Energy savings impacts are **quantifiable** using industry-standard approaches.

+ *additional criteria for purpose of benchmarking:*

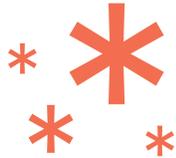
savings results must be provided in a manner that **allows for comparisons** across our taxonomy



We reviewed more than 170 studies, and excluded many programs for lack of comparable results

- Of these, 58 behavioral program models met our screening criteria and had evaluated energy savings (35 Residential and 23 Commercial)
 - Many excluded due to lack of results that allow for comparisons
 - This does not represent all eligible programs – in particular, we limited benchmarking of home energy report programs
 - In some program classes, due to lack of representatives, we included those evaluated less rigorously





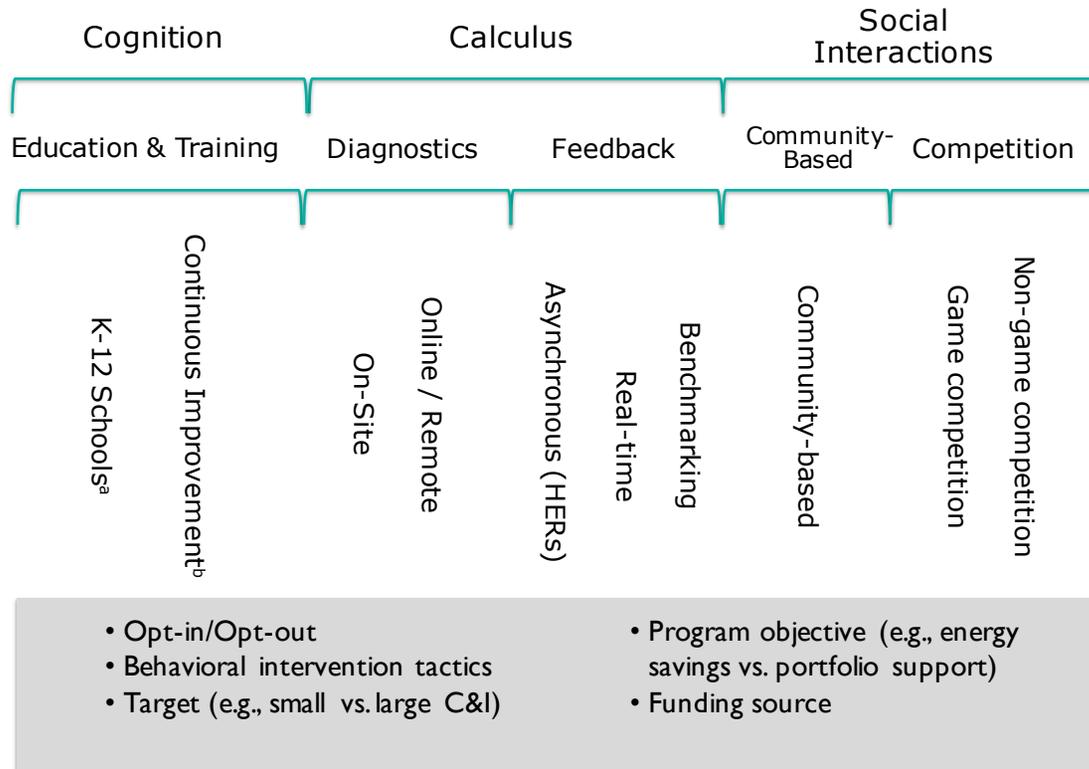
Taxonomy of Behavioral Programs

Family

Category

Program Classes

Features



^a We consider K-12 Schools programs to be a “Commercial” offering based on where the program is delivered, though savings may be achieved in the school or student homes

^b Continuous Improvement (also known as Strategic Energy Management) is a commercial-only offering



Questions?

ILLUME

ANNE DOUGHERTY
Founding Advisor

m: 608-512-3930

e: anne@illumeadvising.com

