



Learning from the Past to Inform Future Work

Trends in Behavior Based Efficiency Programs

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SEE Action Webinar
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OUR MISSION

CEE increases the effectiveness of energy efficiency programs by enhancing communications and harmonizing approaches across programs to advance energy efficiency for the public benefit.

Program administrators formed CEE:

- ▶ To reach **binational markets**
- ▶ **Accelerate market uptake** of efficient products and services
- ▶ Which achieves **lasting public benefit** of energy efficiency



CEE supports market initiatives and explorations with cross cutting functions



Residential



Commercial



Industrial

Evaluation, measurement and verification

Behavior change

New program design

Connectivity

Emerging technology

Agenda for Today

- ▼ What is the CEE Behavior Program Summary?
- ▼ Results to Date
- ▼ Future Work and Next Steps

Background

- Behavioral insights create opportunities to drive energy savings from efficiency programs BUT....



- They also come with many questions, uncertainties, and challenges.

- How can we best support the CEE membership to succeed in this space?



CEE Behavior Program Summary

- ▼ **What:** Annual, online survey → Summary Document
- ▼ **Who:** CEE Member Organizations
- ▼ **Purpose:** Serve as a resource for members and help facilitate information exchange
- ▼ **Available since:** 2010 (members), 2012 (public)



What information do we collect?

Program Details

Organization	Funding
Description	Vendors/Contractors
Program Duration	Sector and Target
Location	Audience

Program Components

Behavior Insights	Gamification <i>(new!)</i>
Strategies	Two-way feedback
Goals	<i>(new!)</i>

Evaluation

Type of Evaluation	Challenges
Data Source/Metrics	

Savings

Claiming Savings	Persistence
Savings Goals	Savings Attribution
Savings Achieved	

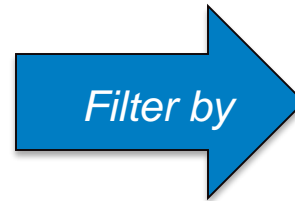
Insights

Key Takeaways

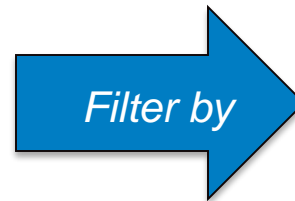
Behavior Research

Regulatory Requirements

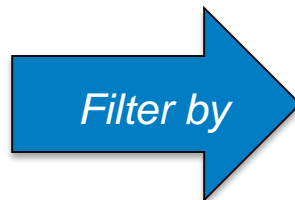
Using the Program Summary



Program Name

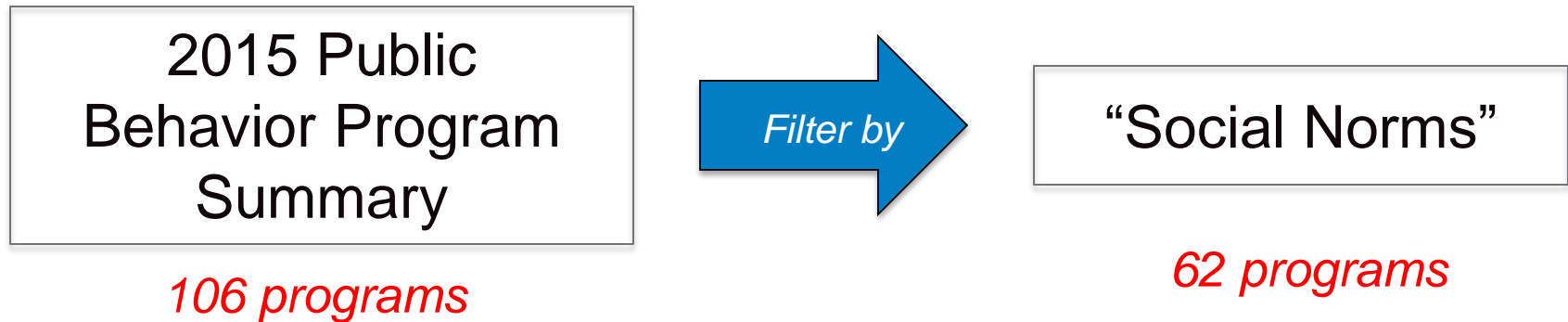


Sector
Target Population



Behavior Insight

Using the Program Summary



▼ Evaluation Complete & Claiming Savings

- 23 programs

▼ Target Sector

- Residential (45), Commercial (8), Industrial (13)

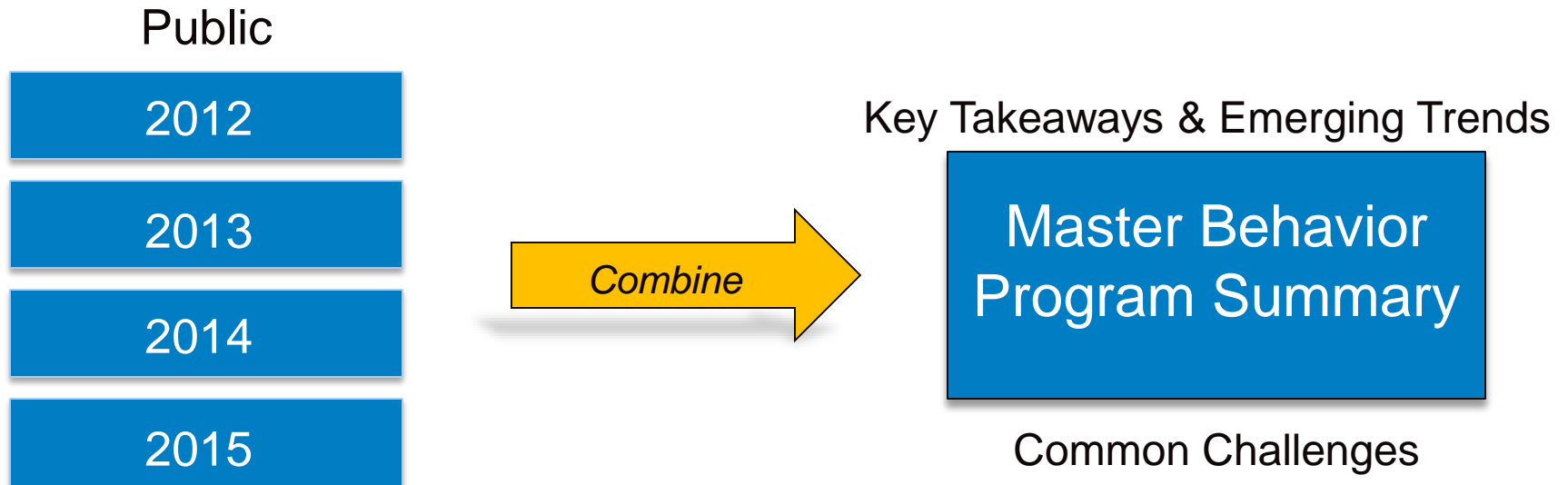
▼ Strategies: Provide Feedback

- Estimated (22), Enhanced Billing (25), Real-time (9)

▼ Goals: Market Transformation

- 22 programs

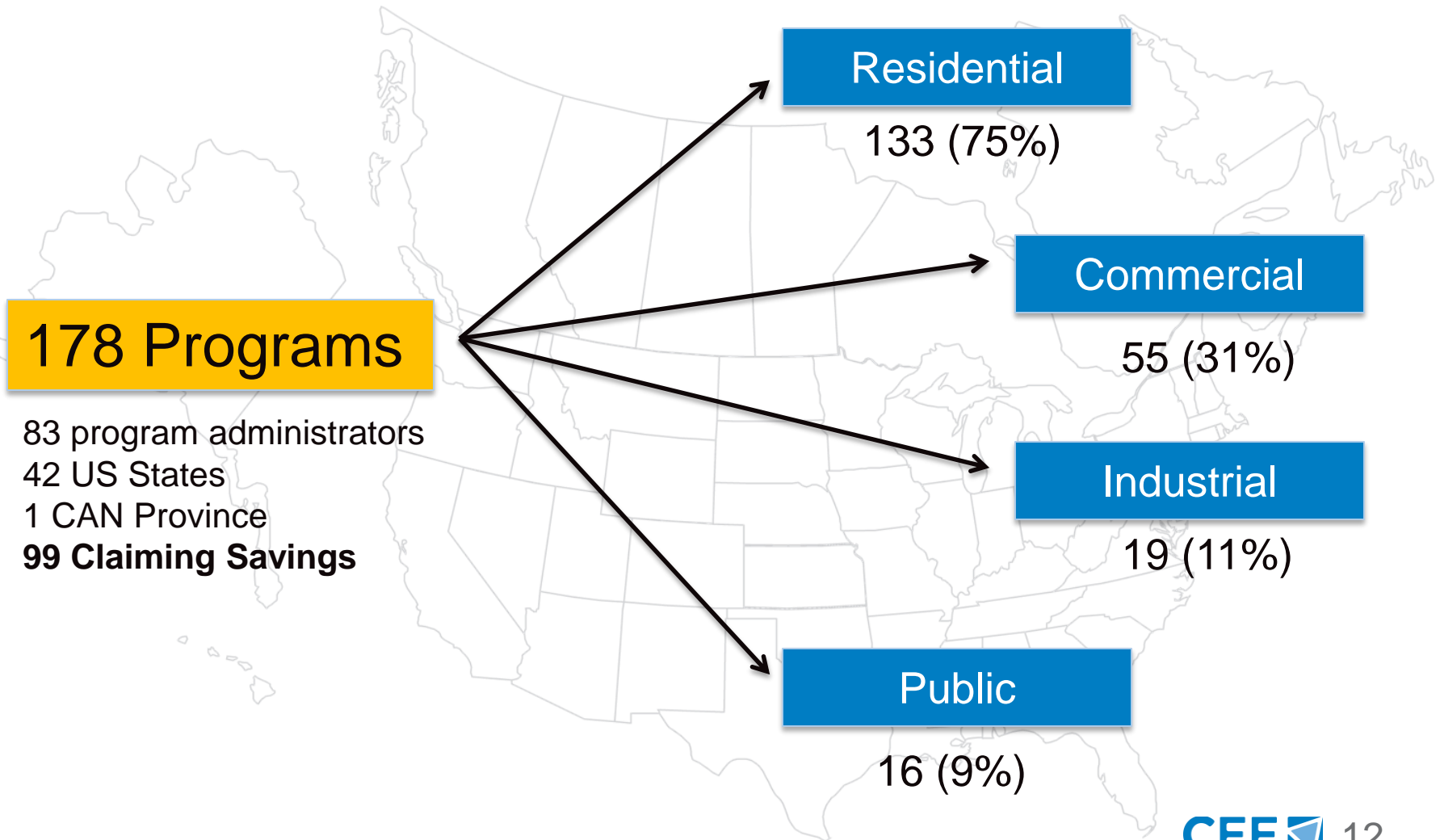
Methodology and Caveats



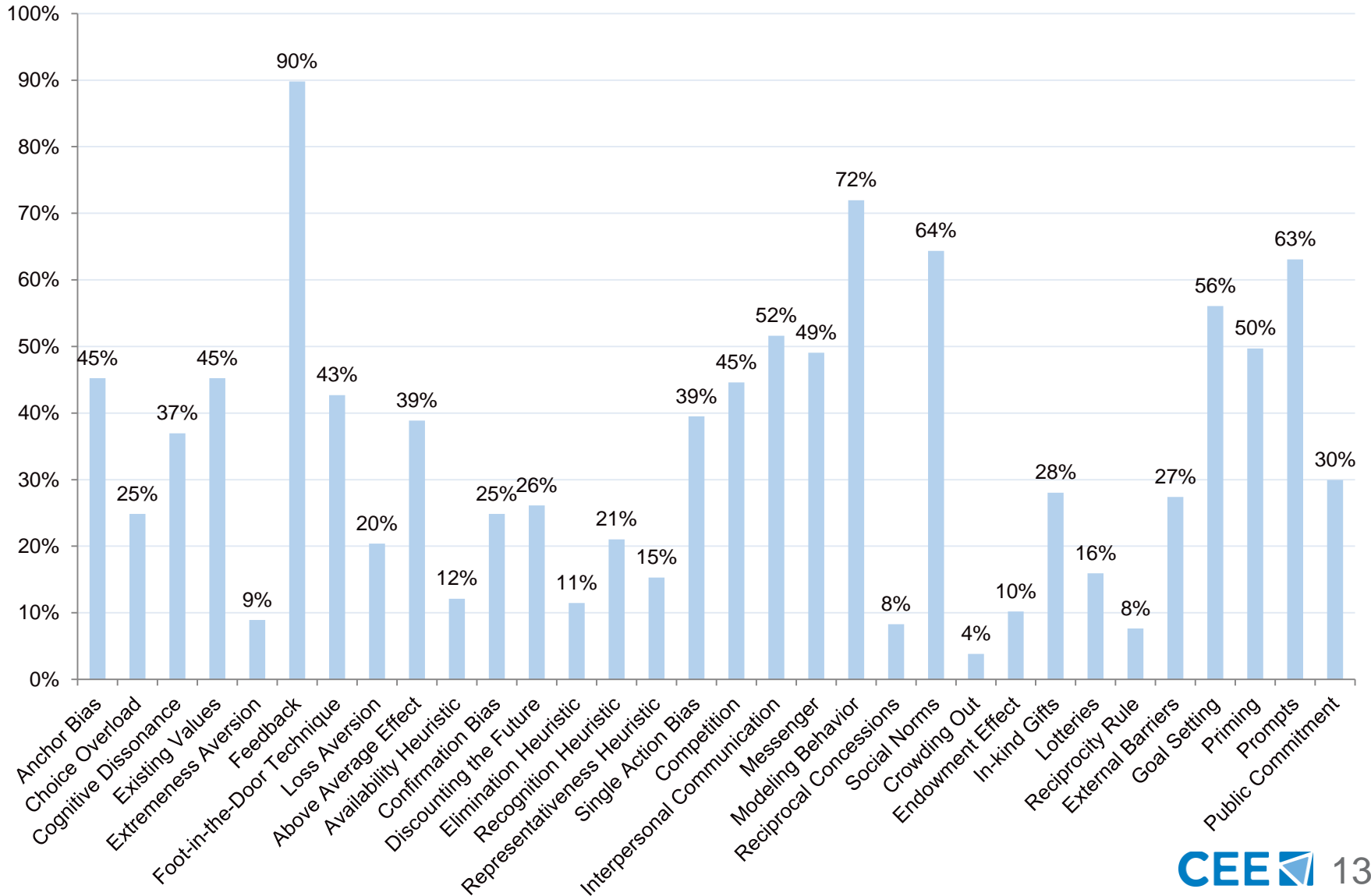
▼ Caveats and Scope

- **NOT** a representative sample
- Select topics

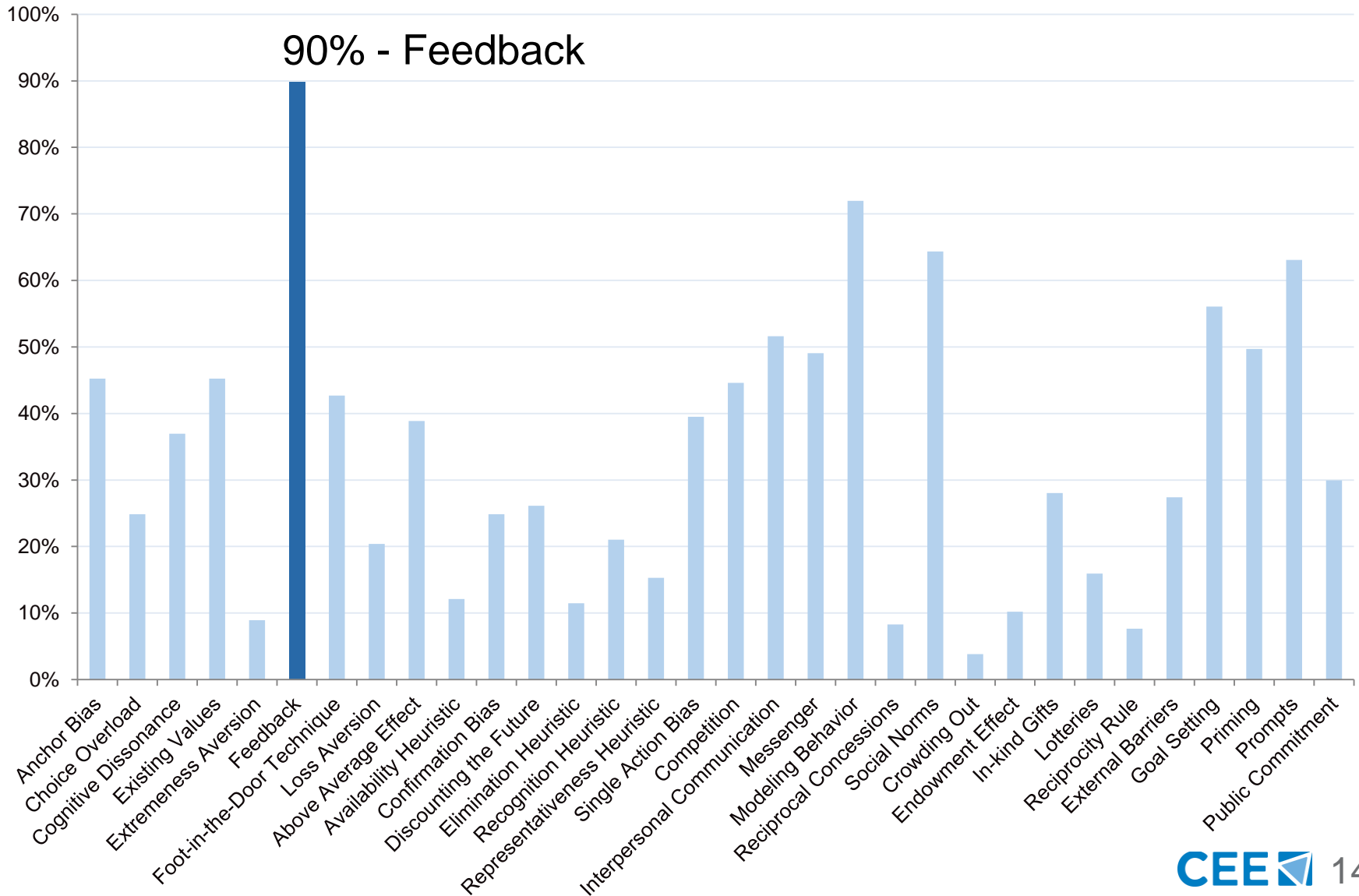
Who is running behavior-based programs?



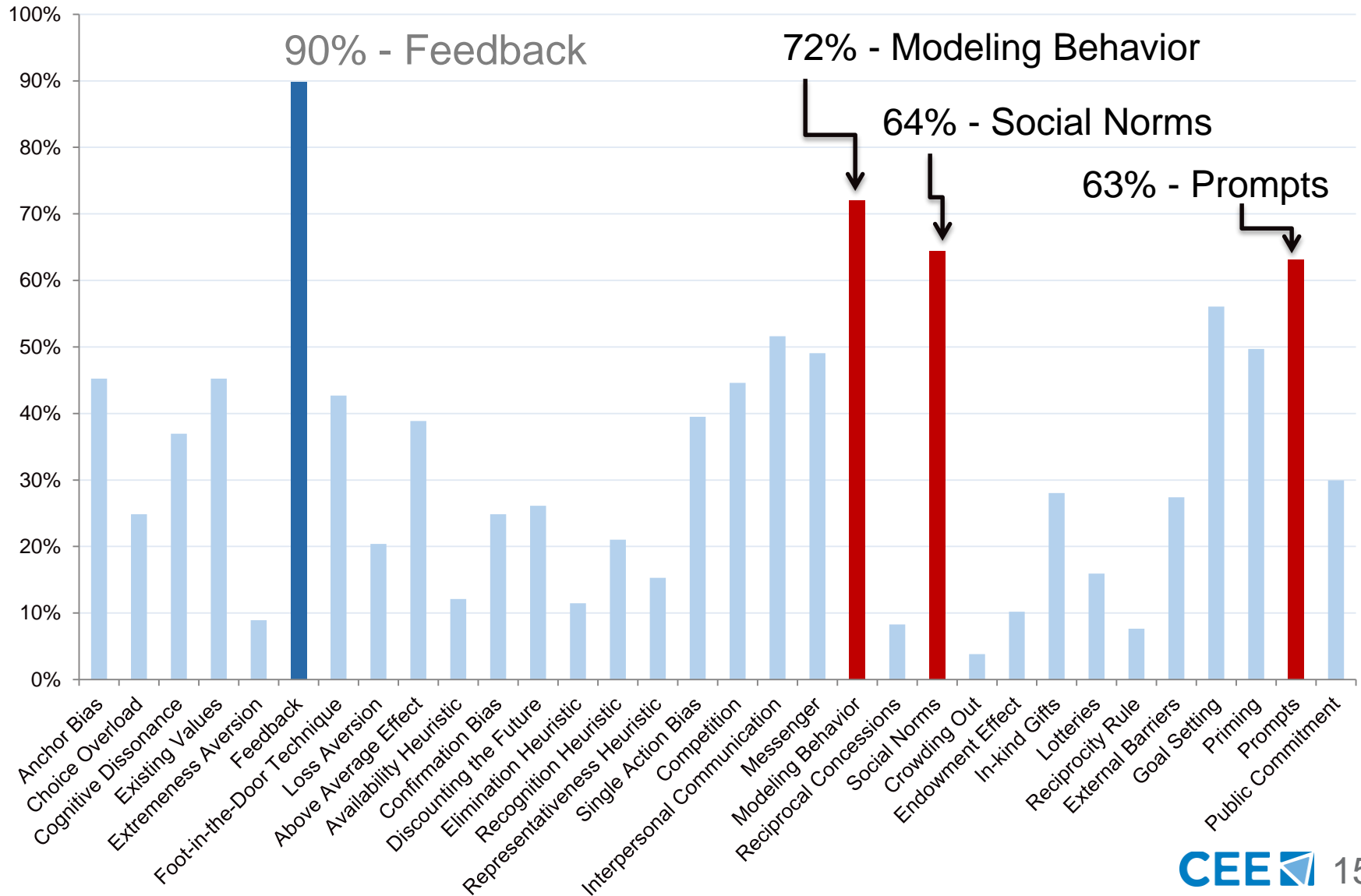
Behavior Insights Used



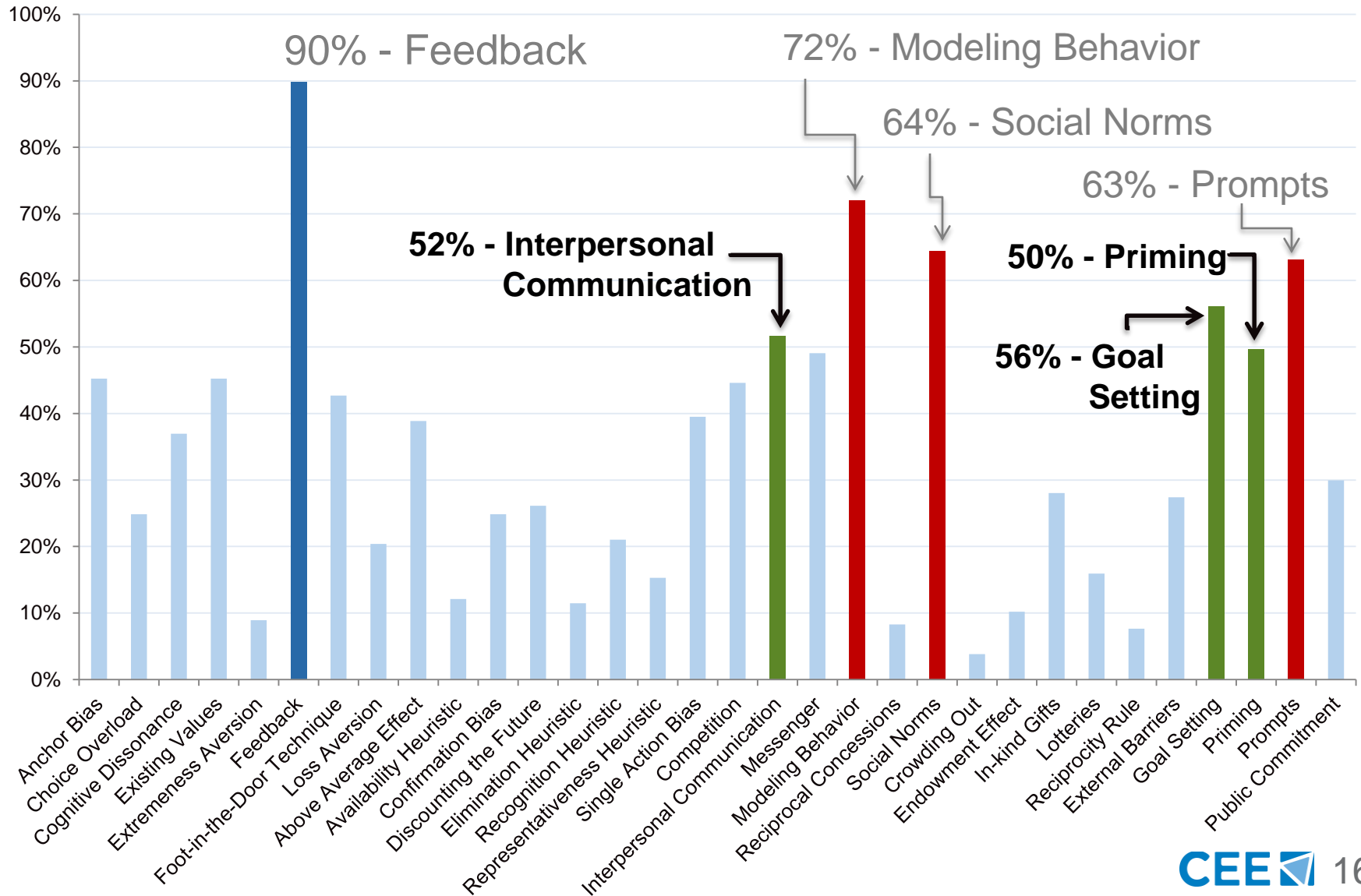
Behavior Insights Used



Behavior Insights Used



Behavior Insights Used



Behavior Insights Used

Feedback



Easier to gain regulatory acceptance

Person-to-Person



- ▶ Social Norms
- ▶ Modeling
- ▶ Interpersonal Communication

Follow Through



- ▶ Prompts
- ▶ Priming
- ▶ Goal Setting

Behavior Insights Used



Evaluation

42% Complete
24% Planning/Underway

Type of Evaluation

Impact – 85%
Process – 49%

Design

Experimental – 49%
Non-Experimental – 27%
Quasi – Experimental – 9%

Metrics

Energy Savings – 75%
Customer Satisfaction – 62%
Awareness – 59%
Number of Participants Reached – 40%
Cost Savings – 35%

Challenges

Uncertainty regarding persistence – 31%
Data collection – 30%
Difficulty attributing savings – 26%
Sample Size – 21%

Key Takeaways

Implementation Tips



Program Benefits



Savings & Evaluation



CUSTOMER

Key Takeaways: Implementation Tips

Planning Ahead



Communication & Marketing



Managing Data & Technology



“Careful, early planning by engaging a multidisciplinary team (program team, evaluation team, and regulators) at the outset is critical to a successful program launch and execution.”

Key Takeaways: Program Benefits

Energy Savings



Customer Satisfaction



Entry Point for the Future



“Having an icon can help make an ‘invisible concept’ something concrete and visible.”

Key Takeaways: Savings & Evaluation

Benefits and Challenges of Rigorous EM&V Design



Participant Sample



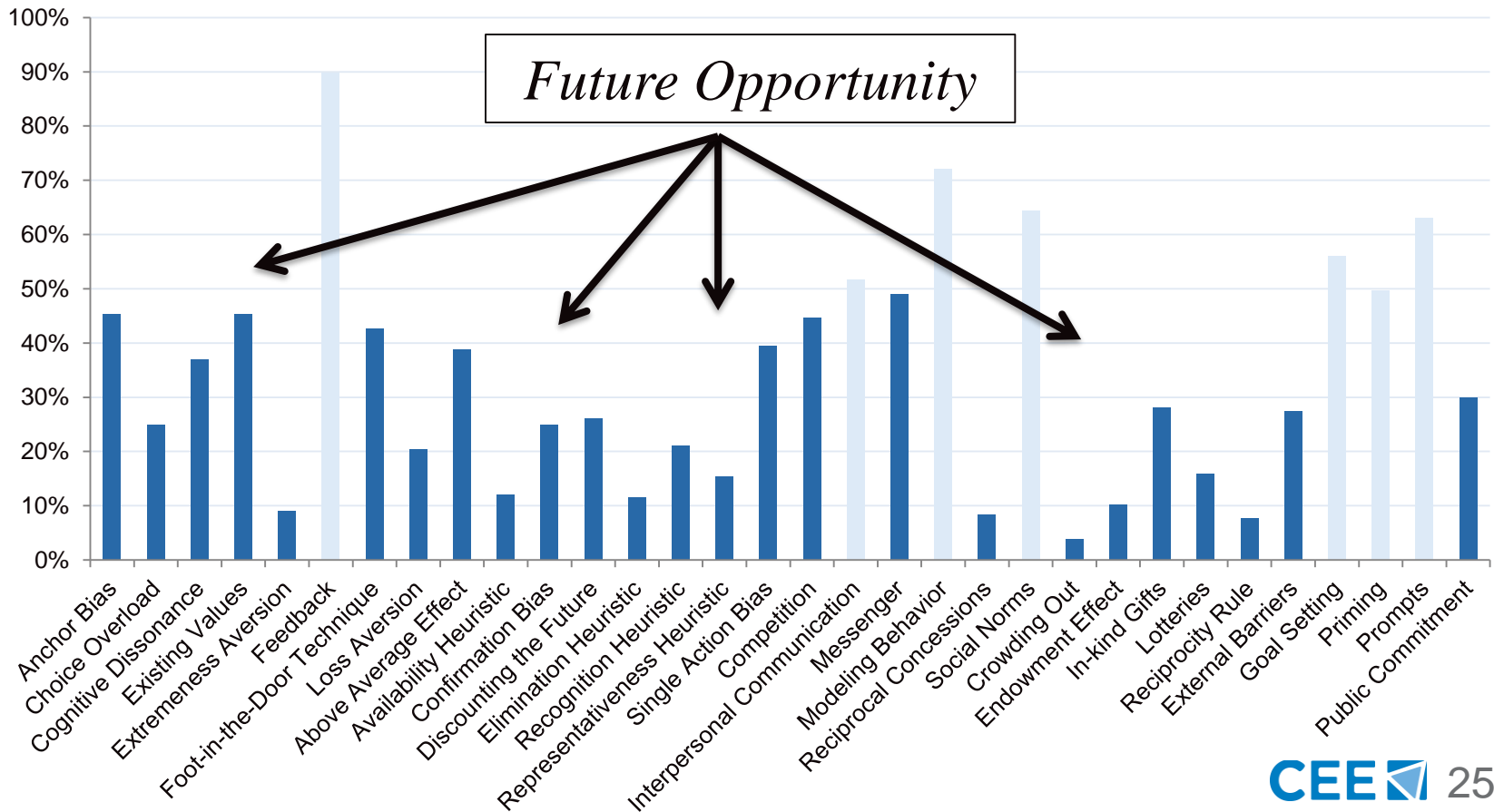
“Maintaining no changes during program implementation can prove to be a little difficult as more information about the program emerges.”

Future Work and Next Steps



Future Work and Next Steps

- ▶ Untapped opportunities to incorporate new insights to enhance programs and drive savings across sectors

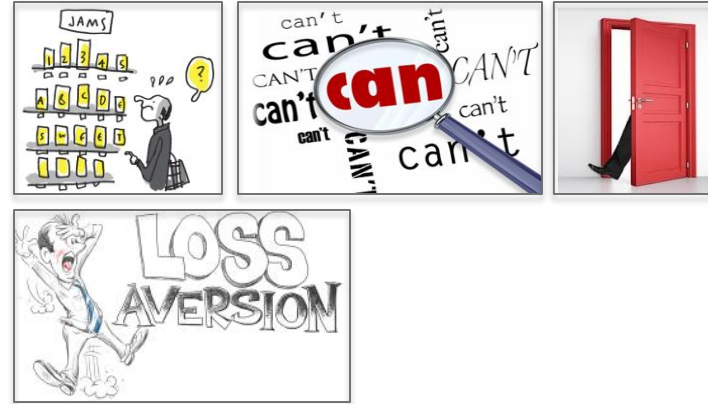


Future Work and Next Steps

Rewarding Change



Framing Efficiency



Connected Technology & Behavioral Insights



Future Work and Next Steps

Key Areas to Watch

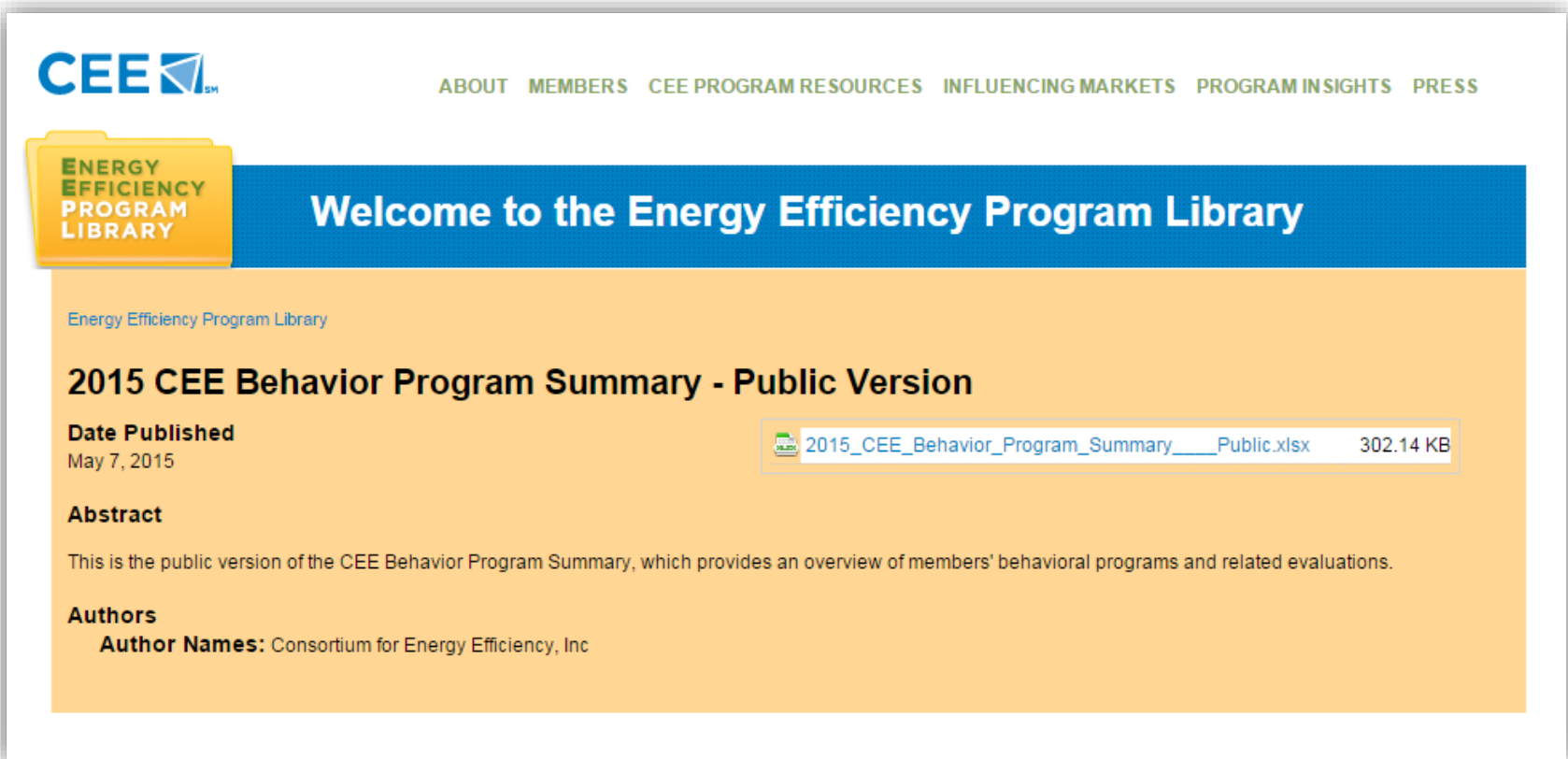
- Persistence – measurement, length
- Connected technologies
- Savings attribution



2016 Program Summary

Coming to our public website in spring of 2016!

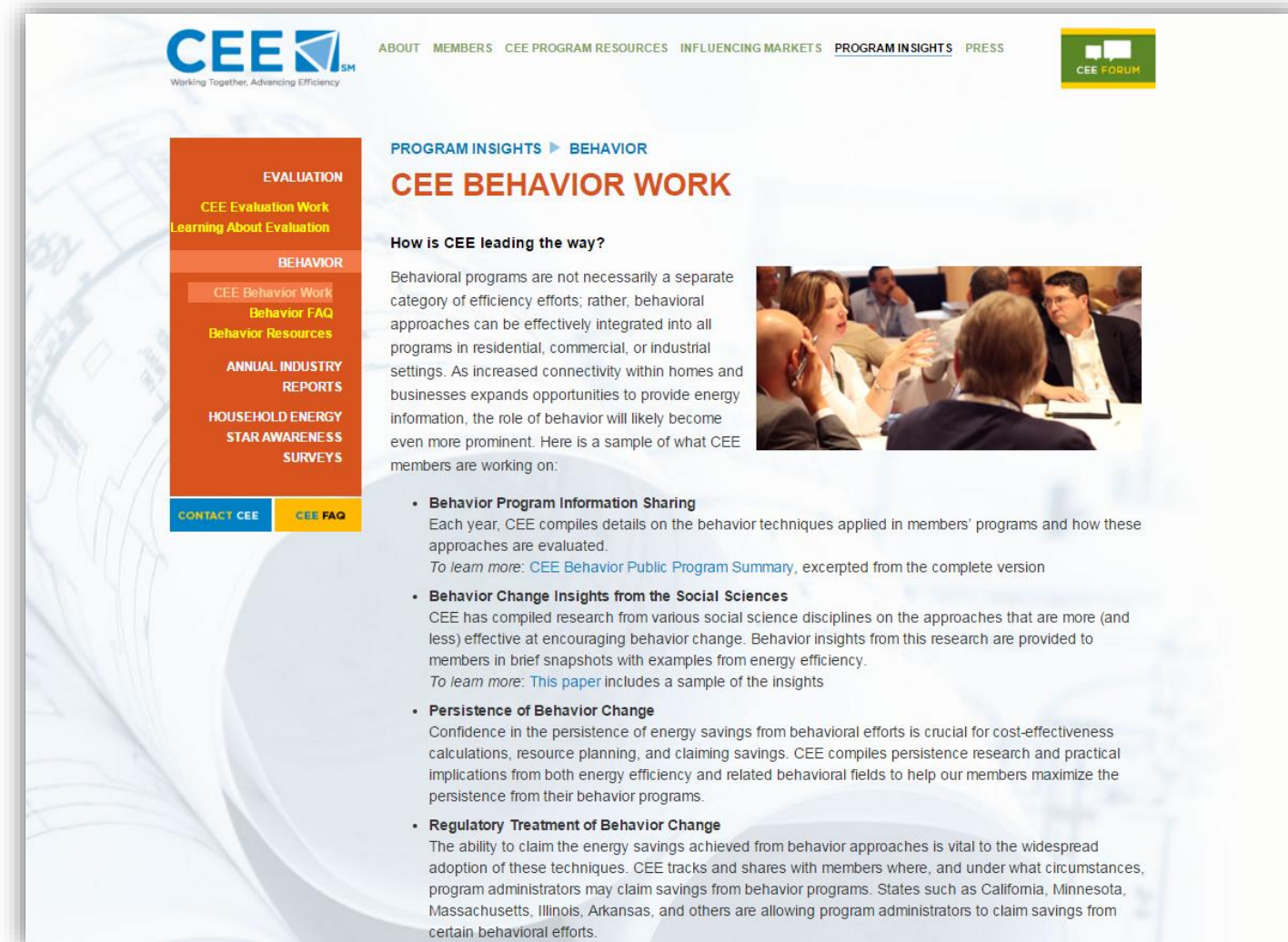
Resources: Behavior Program Summary



The screenshot shows the Energy Efficiency Program Library website. At the top left is the CEE logo. To the right are navigation links: ABOUT, MEMBERS, CEE PROGRAM RESOURCES, INFLUENCING MARKETS, PROGRAM INSIGHTS, and PRESS. Below the navigation is a blue banner with the text "Welcome to the Energy Efficiency Program Library". On the left side of the banner is a yellow folder icon with the text "ENERGY EFFICIENCY PROGRAM LIBRARY". Below the banner, the page title is "Energy Efficiency Program Library". The main content area is orange and features the title "2015 CEE Behavior Program Summary - Public Version". Underneath the title, there is a "Date Published" section with the date "May 7, 2015". To the right of the date is a download link for a file named "2015_CEE_Behavior_Program_Summary____Public.xlsx" with a size of "302.14 KB". Below the date and link is an "Abstract" section with the text: "This is the public version of the CEE Behavior Program Summary, which provides an overview of members' behavioral programs and related evaluations." At the bottom of the abstract section is an "Authors" section with the text: "Author Names: Consortium for Energy Efficiency, Inc".

<http://library.cee1.org/content/2015-cee-behavior-program-summary-public-version/>

Resources: Behavior at CEE



The screenshot shows the CEE website's 'PROGRAM INSIGHTS' section for 'BEHAVIOR'. The CEE logo is at the top left with the tagline 'Working Together, Advancing Efficiency'. Navigation links include 'ABOUT', 'MEMBERS', 'CEE PROGRAM RESOURCES', 'INFLUENCING MARKETS', 'PROGRAM INSIGHTS', and 'PRESS'. A 'CEE FORUM' icon is in the top right. A left sidebar contains a menu with categories: 'EVALUATION' (with sub-links for 'CEE Evaluation Work' and 'Learning About Evaluation'), 'BEHAVIOR' (with sub-links for 'CEE Behavior Work', 'Behavior FAQ', and 'Behavior Resources'), 'ANNUAL INDUSTRY REPORTS', and 'HOUSEHOLD ENERGY STAR AWARENESS SURVEYS'. At the bottom of the sidebar are 'CONTACT CEE' and 'CEE FAQ' buttons. The main content area features the heading 'PROGRAM INSIGHTS ► BEHAVIOR' and 'CEE BEHAVIOR WORK'. Below this is the sub-heading 'How is CEE leading the way?' followed by a paragraph explaining that behavioral programs are integrated into all programs in residential, commercial, or industrial settings. To the right of this text is a photograph of three people in a meeting. Below the paragraph is a list of four bullet points: 'Behavior Program Information Sharing', 'Behavior Change Insights from the Social Sciences', 'Persistence of Behavior Change', and 'Regulatory Treatment of Behavior Change', each with a brief description and a link to learn more.

CEE
Working Together, Advancing Efficiency

ABOUT MEMBERS CEE PROGRAM RESOURCES INFLUENCING MARKETS **PROGRAM INSIGHTS** PRESS

CEE FORUM

EVALUATION
CEE Evaluation Work
Learning About Evaluation

BEHAVIOR
CEE Behavior Work
Behavior FAQ
Behavior Resources

ANNUAL INDUSTRY REPORTS


HOUSEHOLD ENERGY STAR AWARENESS SURVEYS

CONTACT CEE CEE FAQ

PROGRAM INSIGHTS ► BEHAVIOR
CEE BEHAVIOR WORK

How is CEE leading the way?

Behavioral programs are not necessarily a separate category of efficiency efforts; rather, behavioral approaches can be effectively integrated into all programs in residential, commercial, or industrial settings. As increased connectivity within homes and businesses expands opportunities to provide energy information, the role of behavior will likely become even more prominent. Here is a sample of what CEE members are working on:



- **Behavior Program Information Sharing**
Each year, CEE compiles details on the behavior techniques applied in members' programs and how these approaches are evaluated.
To learn more: [CEE Behavior Public Program Summary](#), excerpted from the complete version
- **Behavior Change Insights from the Social Sciences**
CEE has compiled research from various social science disciplines on the approaches that are more (and less) effective at encouraging behavior change. Behavior insights from this research are provided to members in brief snapshots with examples from energy efficiency.
To learn more: [This paper](#) includes a sample of the insights
- **Persistence of Behavior Change**
Confidence in the persistence of energy savings from behavioral efforts is crucial for cost-effectiveness calculations, resource planning, and claiming savings. CEE compiles persistence research and practical implications from both energy efficiency and related behavioral fields to help our members maximize the persistence from their behavior programs.
- **Regulatory Treatment of Behavior Change**
The ability to claim the energy savings achieved from behavior approaches is vital to the widespread adoption of these techniques. CEE tracks and shares with members where, and under what circumstances, program administrators may claim savings from behavior programs. States such as California, Minnesota, Massachusetts, Illinois, Arkansas, and others are allowing program administrators to claim savings from certain behavioral efforts.

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