



# ENERGY SAVINGS AND BEYOND

Measuring the Success of Marketing,  
Education, and Outreach Efforts

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Opinion **Dynamics**





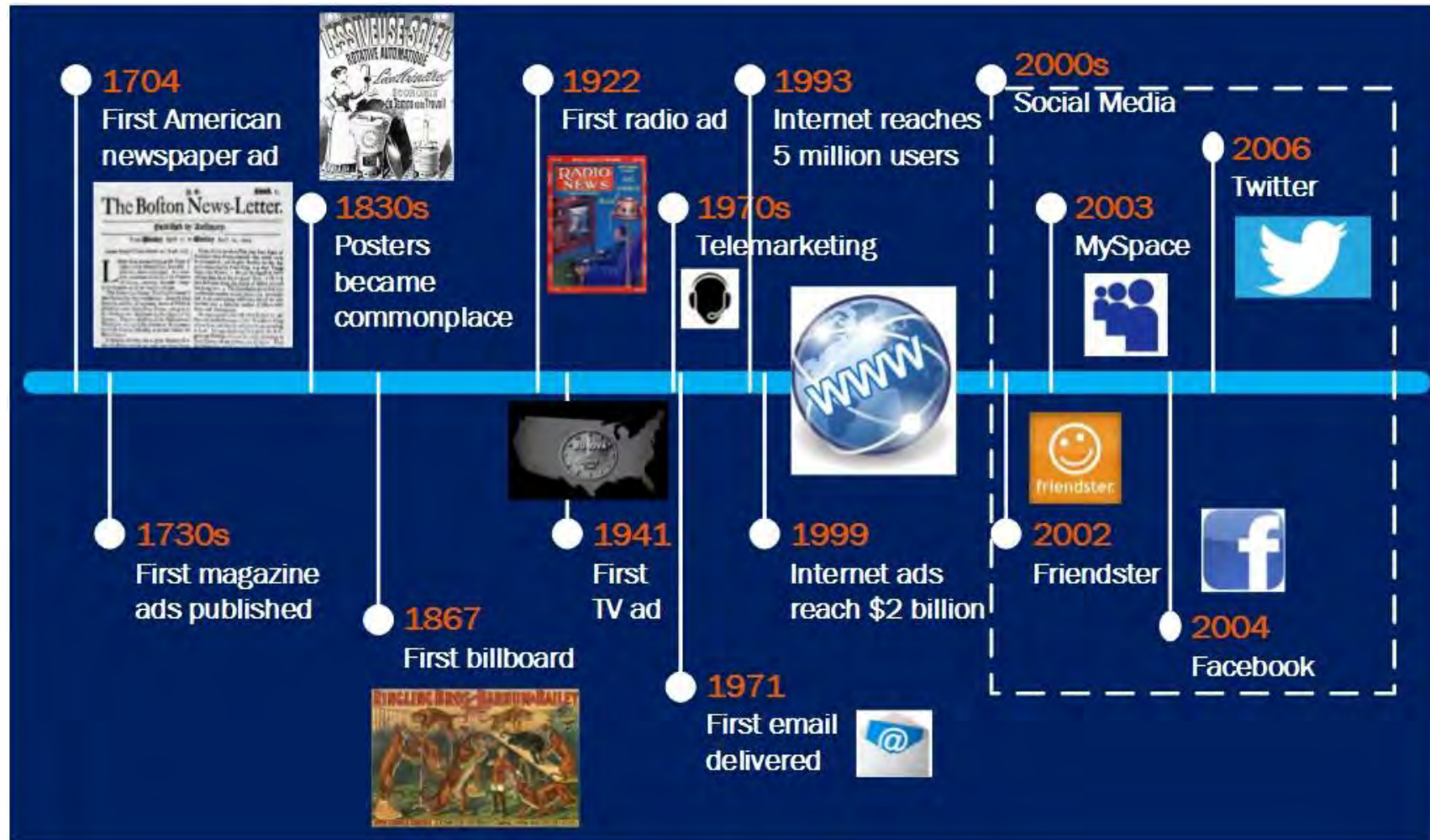


# Marketing Isn't New

- Been around as long as there have been goods and services
  - Key development was the separation of production and consumption of goods and services
- Undergone dramatic change in the 20<sup>th</sup> century that has accelerated in the past 25 years



# History of Mass Marketing



## Early “Green” Marketing

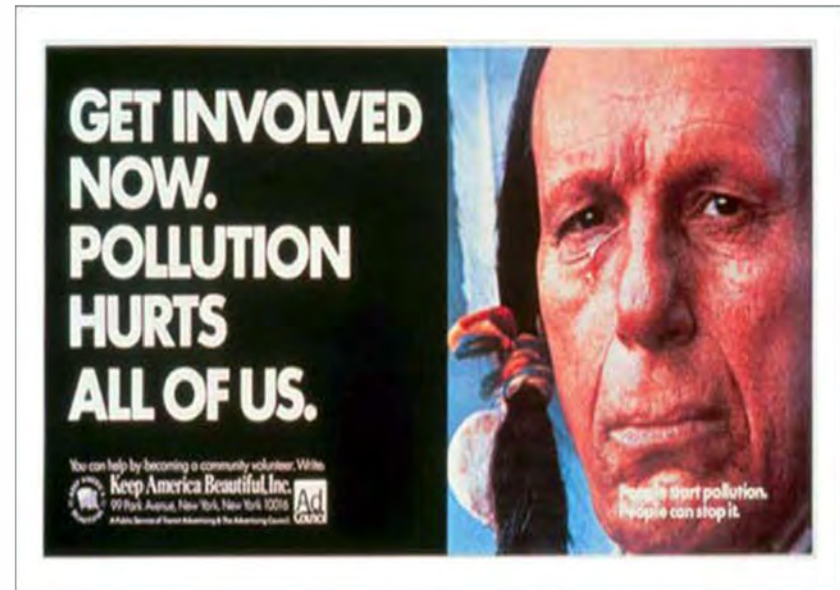
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- “Keep America Beautiful” campaign.
- Targeted pollution and littering
- Begun in 1953.
- Lassie was an original mascot for the campaign.
- The more memorable ad was the “Crying Indian” ad.
- First TV ad aired on Earth Day 1971





## The Crying Indian/Italian American Campaign



## Selling Energy Efficiency – Traditional Programs

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- Marketing in traditional demand side management programs is underappreciated
- Programs contain both marketing and financial incentives
  - Incentives are assumed to be the prime driver of program energy savings
- Would be extremely challenging to disentangle effects of the program's marketing and education efforts from financial incentives



## Selling Energy Efficiency – Branding

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- Energy efficiency program administrators (PAs) are launching branding efforts
- Objective is to engage and educate customers
- Ultimately causing them to take actions that save energy
- These brands promote more than energy efficiency. They promote energy management as a lifestyle.





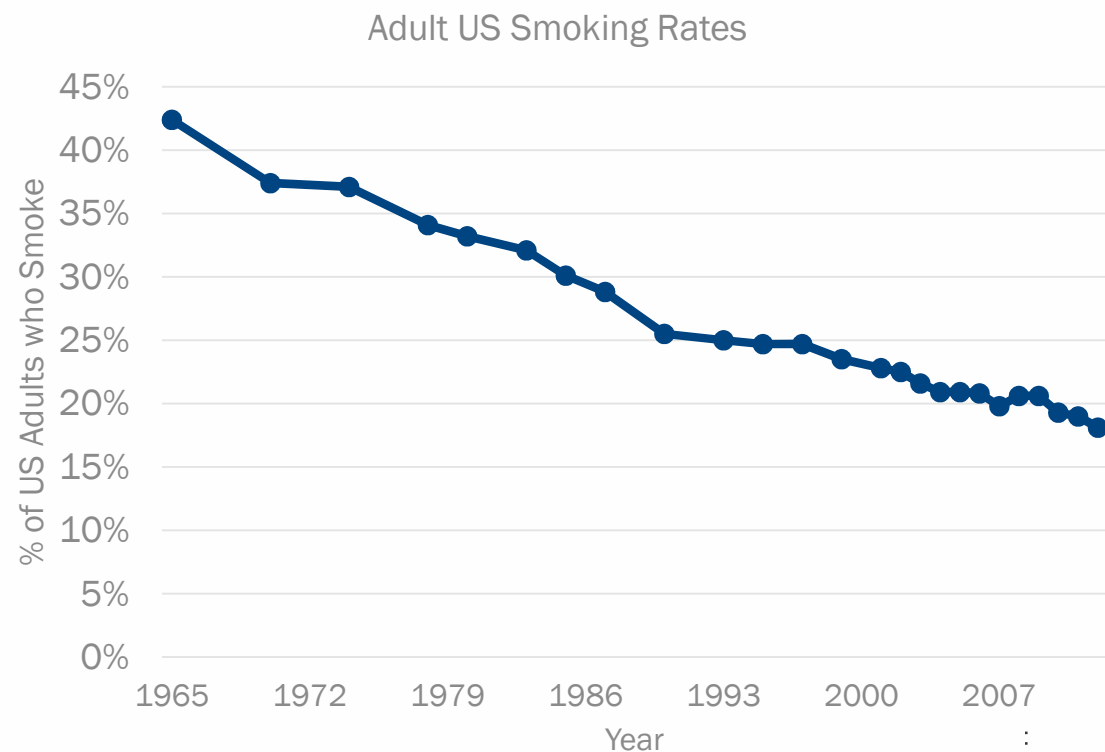
# The Challenge of Selling Energy Management

It's Complicated



## Selling a Complicated Concept

- Really selling “energy management” and not simply “energy efficiency”
  - Singular one-time actions versus a lifestyle
  - Specific versus general attitudes
- Other social marketing campaigns have a more straight forward “ask” and more defined metrics
  - Don’t litter
  - Stop smoking



# Complicated Information Environment

- Crowded media space with competing messages in which...
- ...narrowcasting has replaced broadcasting and...
- ...energy efficiency is politicized.





## Establishing a Causal Linkage between Campaign and Metrics is Not a Simple Task

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- Typical methods for estimating impact of an ad campaign are not very rigorous
- Are less appropriate when are not selling a particular product but a lifestyle
  - What is the dependent variable if it isn't sales of a product?
  - Brand awareness? Attitude change?
- Changes in technology and consumer behavior have reduced the usefulness of traditional marketing effects methods

# A Further Complication

## Agreement on Metrics



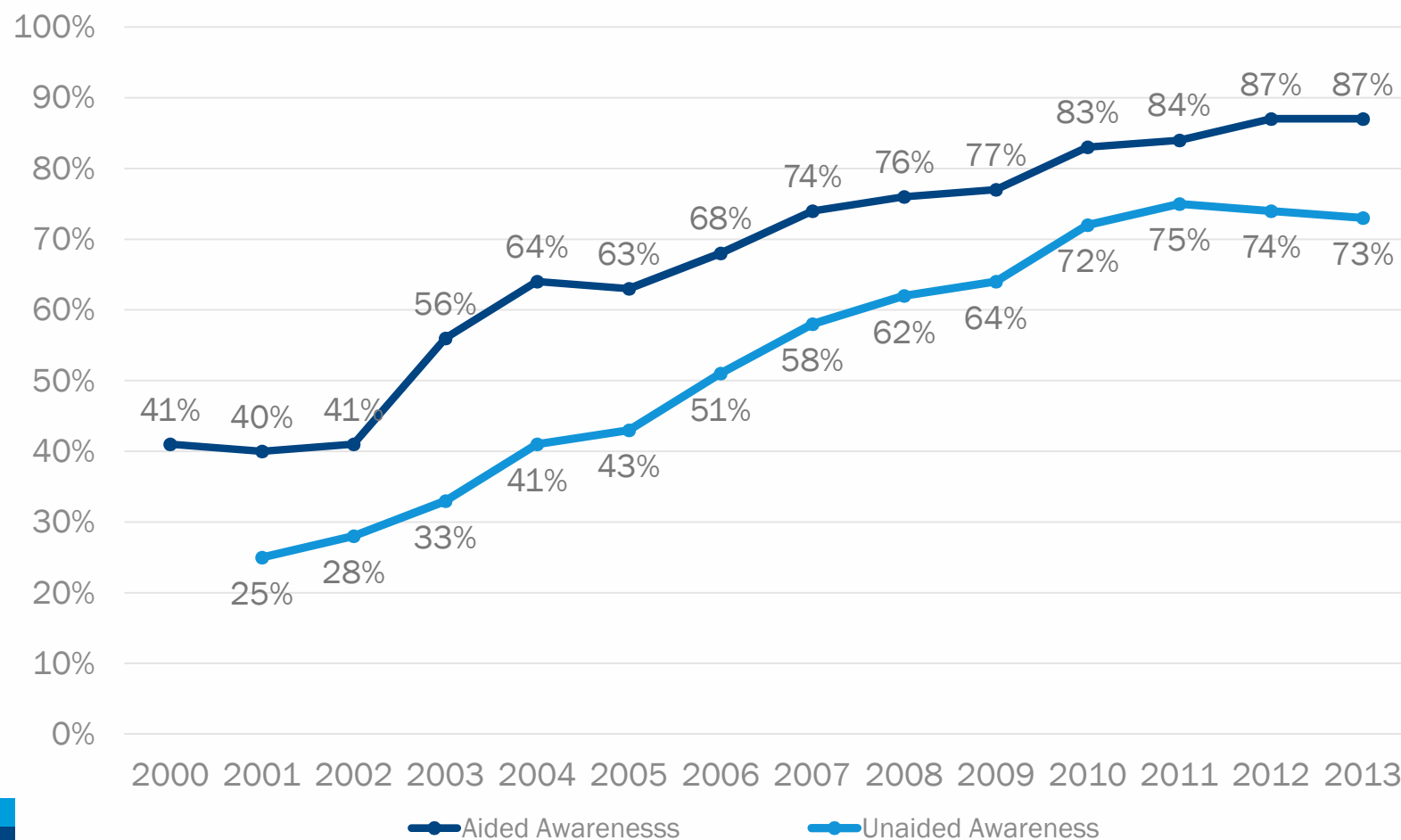
# How Do We Measure ME&O Success?





## Is Awareness Enough?

- ENERGY STAR® has built tremendous awareness



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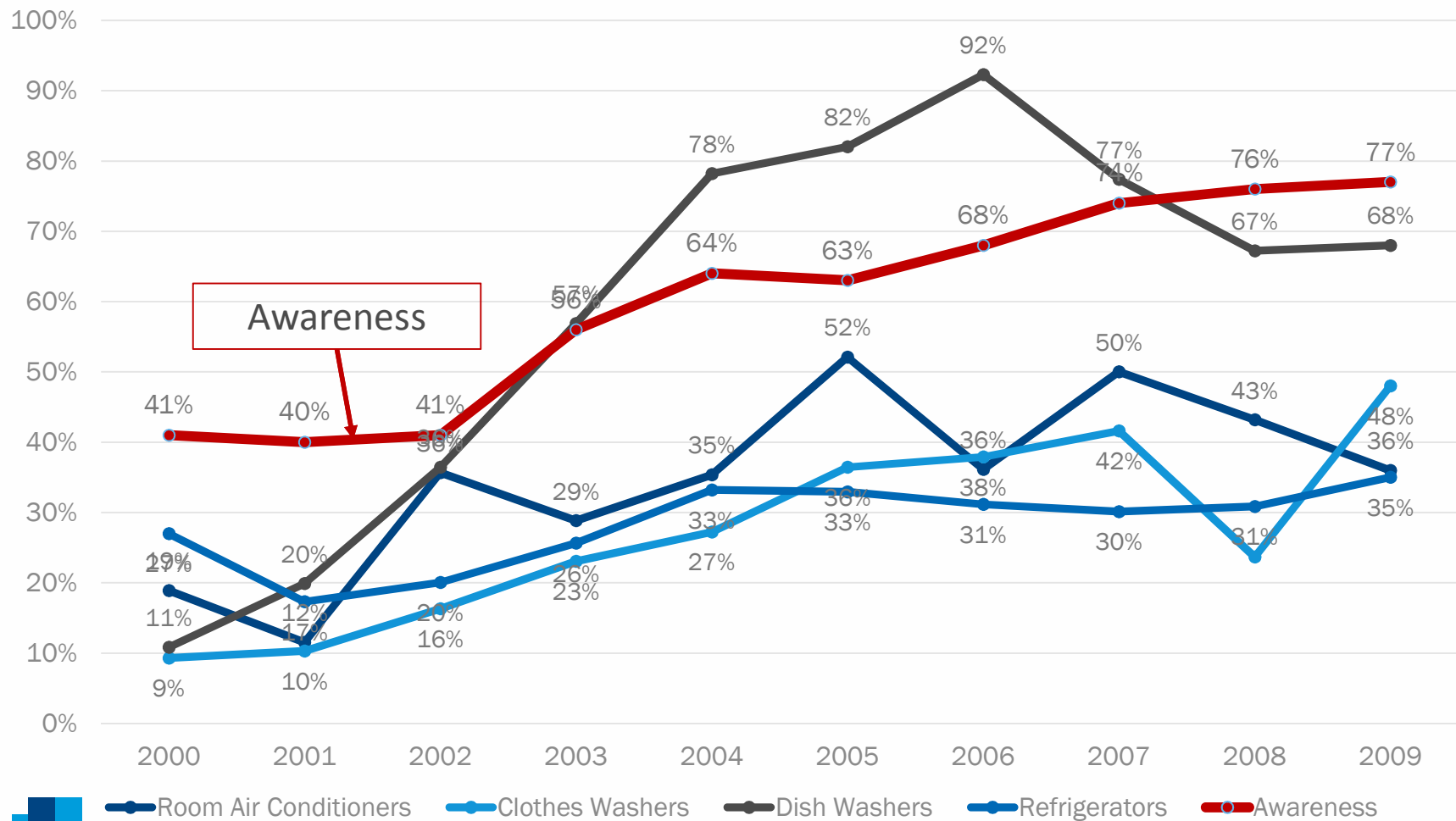
Source: CEE ENERGY STAR Awareness Surveys

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15

# Wouldn't We Rather Have a Measure of Behavior Change?

## Sales of ENERGY STAR® Appliances Compared to Awareness

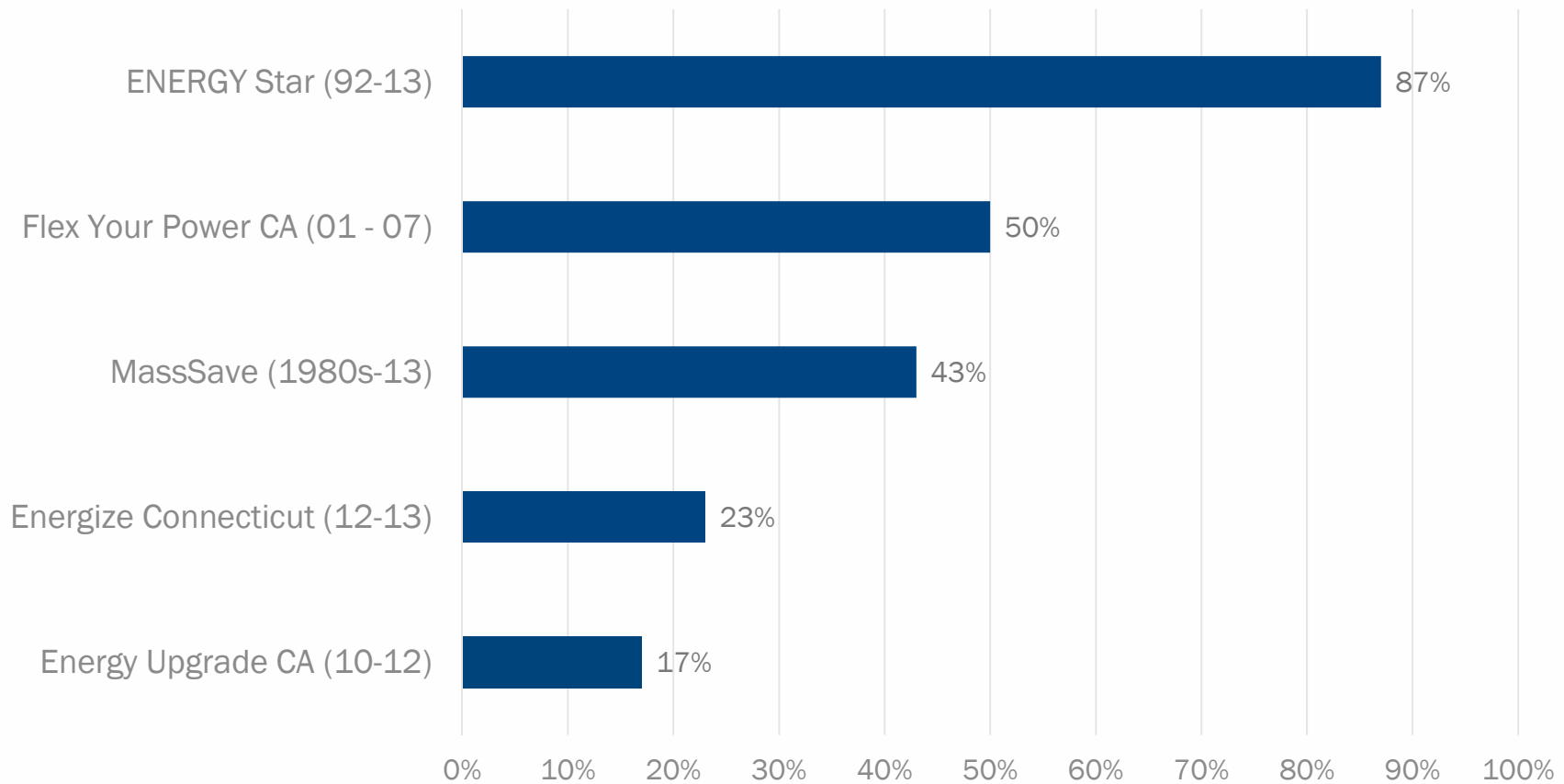


Opinion **Dynamics** Source: EPA ENERGY STAR Market Penetration Data and CEE ENERGY STAR Awareness Surveys

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16

# Awareness of Energy Efficiency Brands Across the Country





# Stakeholder Agreement on Success Metrics and Definitions of Success

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- Energy savings is the standard metric
- How do you sustain a program or campaign if you can't quantify savings?
- How do you build and maintain stakeholder support for such a campaign?

# Solutions Implementation

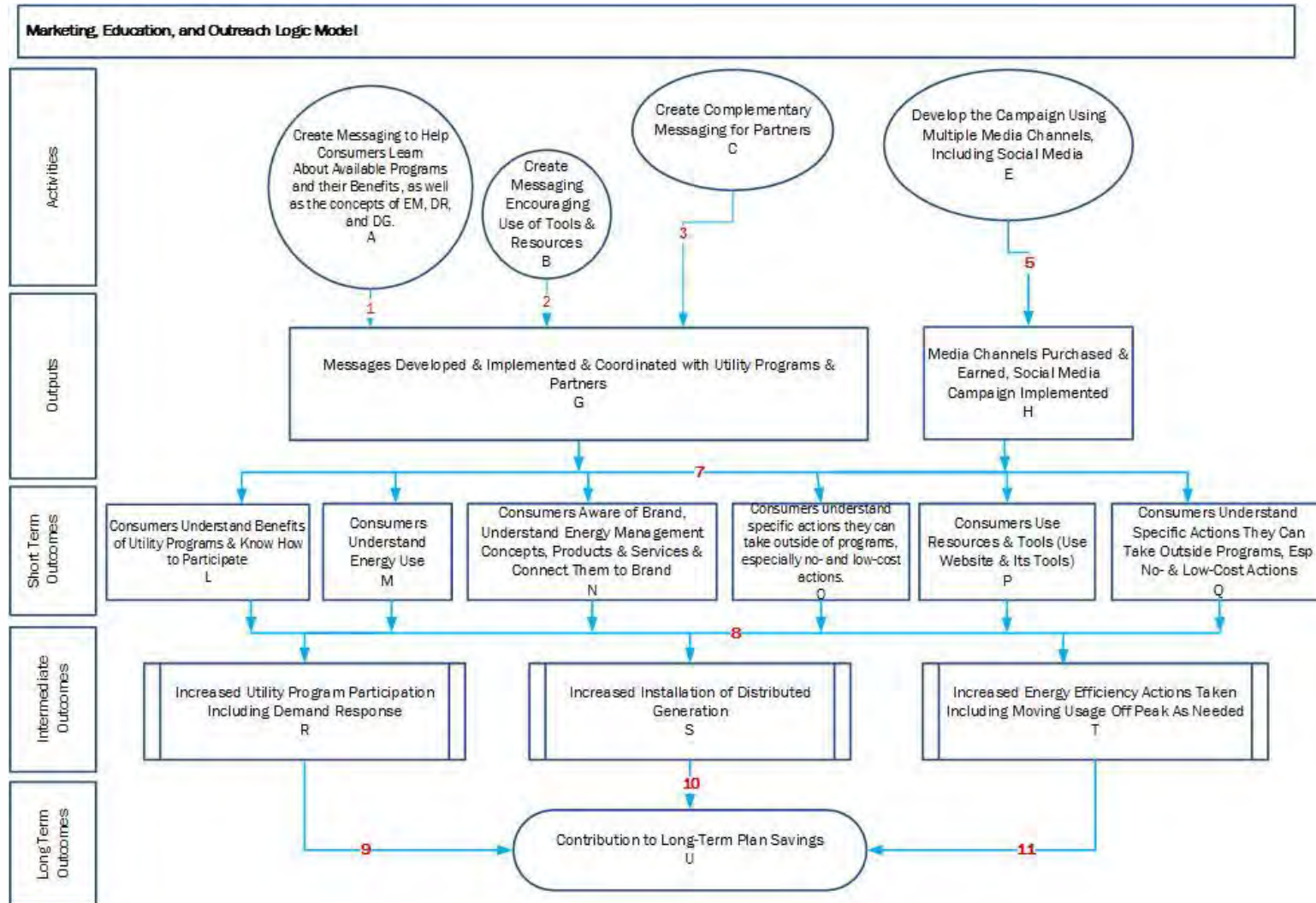


## Develop a Program Theory Logic Model

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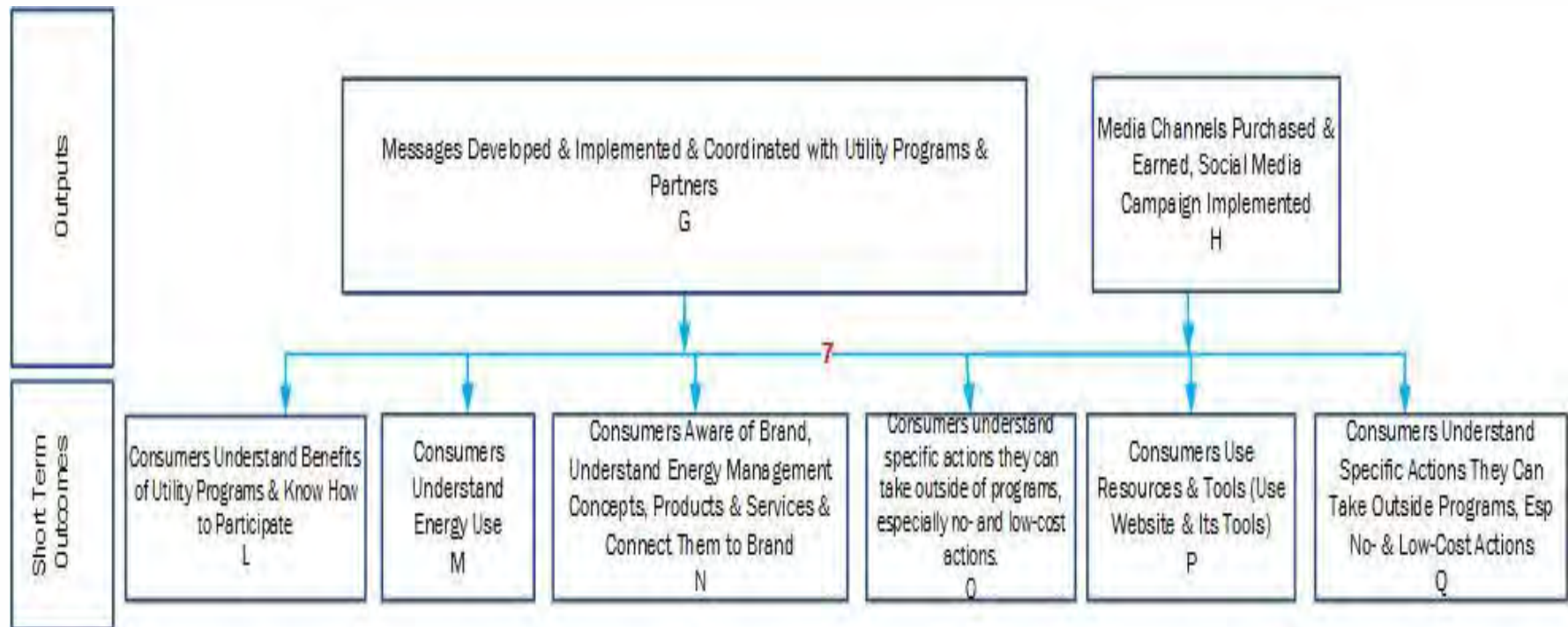
- A visual tool to systematically define program objectives and how they will be achieved through program activities.
- A PTLM...
  - Provides a more defined causal connection linking ME&O to outcomes.
  - Helps to gain stakeholder agreement on the metrics that will be used to assess whether the campaign has met its objectives.
  - Helps ensure that the data needed for evaluation are collected

# PTLM for an ME&O Campaign



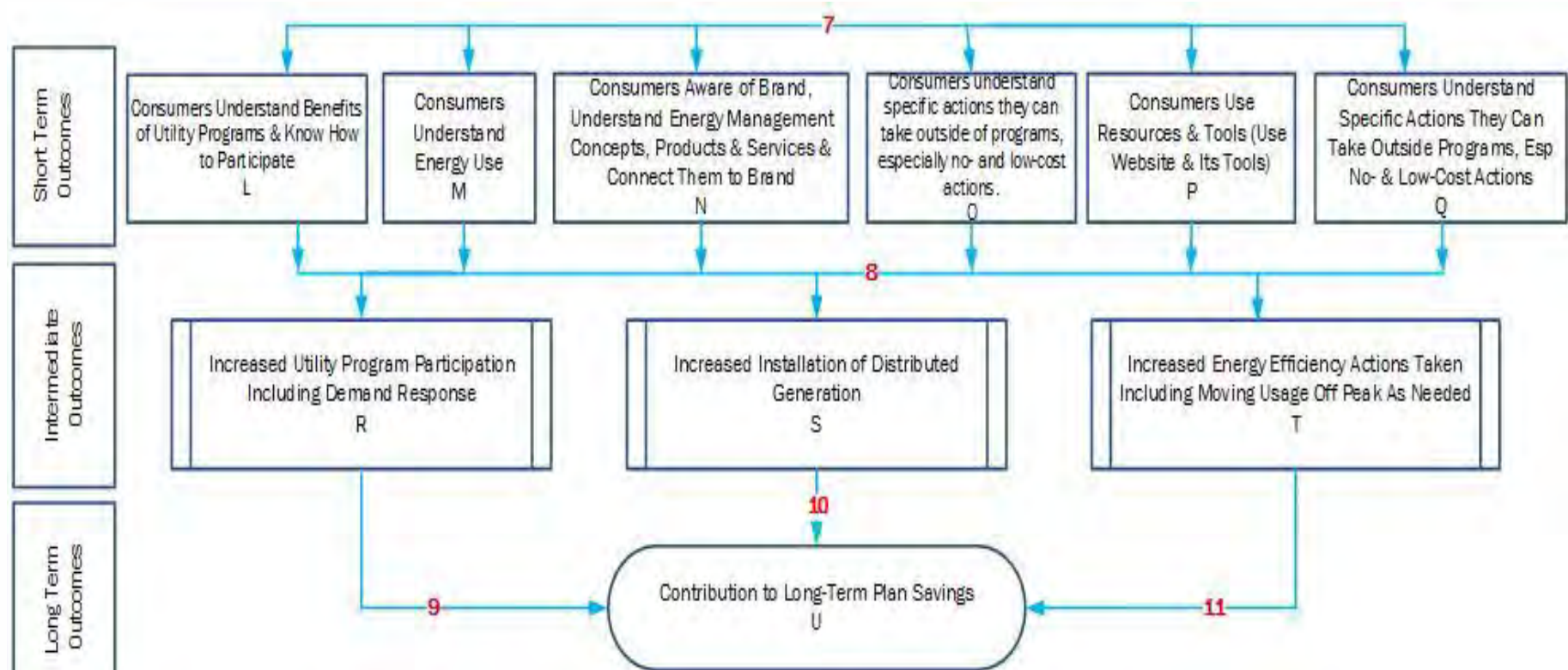


# Use PTLM to Distinguish between Outputs and Outcomes



# Use PTLM to Demonstrate Progression from Short-Term to Long-Term Outcomes

- Campaigns take time to change behavior
  - Other short and intermediate metrics are valid indicators of performance



# Solutions

## Evaluation



## Plan and Utilize Research to Measure Campaign Performance: Traditional Methods

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- Pre-Post Campaign Surveys
  - Timing and target of survey is important
- Rolling Cross-sectional surveys
  - Can more closely track audience response to campaign and timing of response
  - Requires big samples
- Panel Surveys
  - Repeated interviews with the same individuals
  - Concern over panel effects
- Direct Response Tracking
  - Response to direct mail or email campaigns
  - More appropriate for EE program advertising



## Plan and Utilize Research to Measure Campaign Performance: Traditional Methods

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- Marketing Mix Modeling
  - Determine relative impact of different marketing techniques through statistical modelling
  - Typically uses product sales as the indicator of impact
  - Could use survey data on short-term metrics such as awareness or self-reported behavior change but issues of establishing causality
- Digital Media Measures
  - Web visits, length of visit, searches, paid displays, click through rates, Facebook “Likes”

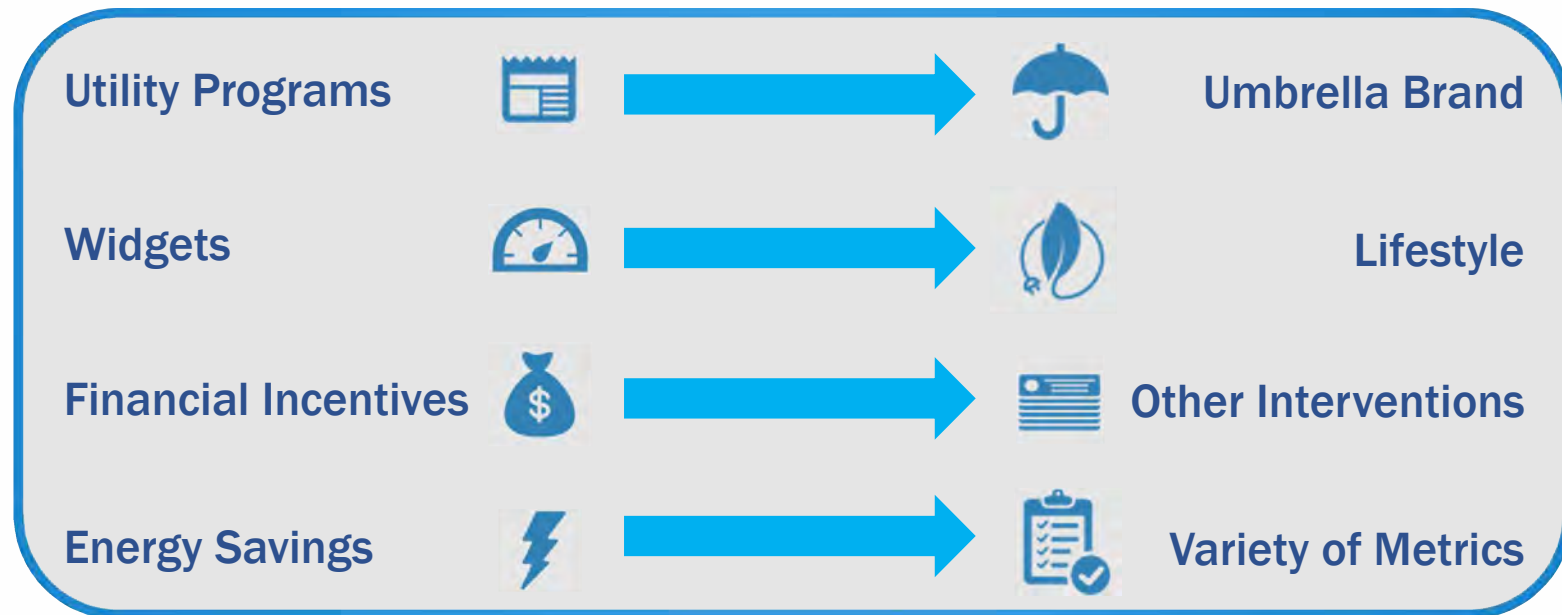
# Plan and Utilize Research to Measure Campaign Performance: New Methods

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- Passive Media Measurement
  - Self-reports of ad exposure suffer from recall error
  - Apps measures exposure to audio messaging
- Cross Media Measurement
  - Can link ad exposure to subsequent on-line behavior
  - See an ad for a product, search for the product on-line, read different product reviews, watch a YouTube video of different products, eventually purchase the product from an on-line retailer
  - Alternatively, can examine what panel member was doing on-line or hearing before searched for EE product or topic. What triggered that search?
- Social Media
  - Analyze volume and tone of social media communications

# Summary: Energy Management ME&O Paradigm Shift

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