

Channeling Customers: Effects of Information-Based Programs as Feeders into Resource Acquisition Programs

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I. Overview¹

Information-based programs and campaigns strive to disseminate energy efficiency messages and recommendations. Often, however, some of the strongest messages advanced are messages about how to participate in *other* utility-based energy efficiency programs. As such, information-based programs or campaigns often serve as marketing tools for resource acquisition programs. A strong call-to-action through an information-only program or campaign can be effective at “channeling” customers into resource acquisition programs. The ability to measure the “channeling effects” of these information-based programs and campaigns can help justify their funding in future years. This paper presents three approaches for measuring channeling effects of information-based efforts.

To illustrate the three approaches and their methodological implications, we looked specifically at the effects of two information-based efforts in California: (1) the Home Energy Efficiency Survey (HEES) program and (2) the Univision Television’s Energy Efficiency Marketing (UTEEM) campaign. The key difference between these efforts is that the first is a utility-run “program” which reaches a known group of customers, while the second is a marketing campaign where the reach of the campaign is somewhat unknown (that is, there are no actual “participants”.) Two approaches were used to measure the channeling effects of the HEES program (which had participants, or a known reach) and one was used for the UTEEM campaign (unknown reach). The efforts that we include in this paper, therefore, are:

- Methodology A: HEES--Crossing Program Databases and Determining Influence Using a Survey
- Methodology B: HEES--Comparing Participants and Non-Participants Based on Database Analysis
- Methodology C: UTEEM--Determining Influence by Surveying Customers who Participated in Programs Promoted by an Advertising Campaign

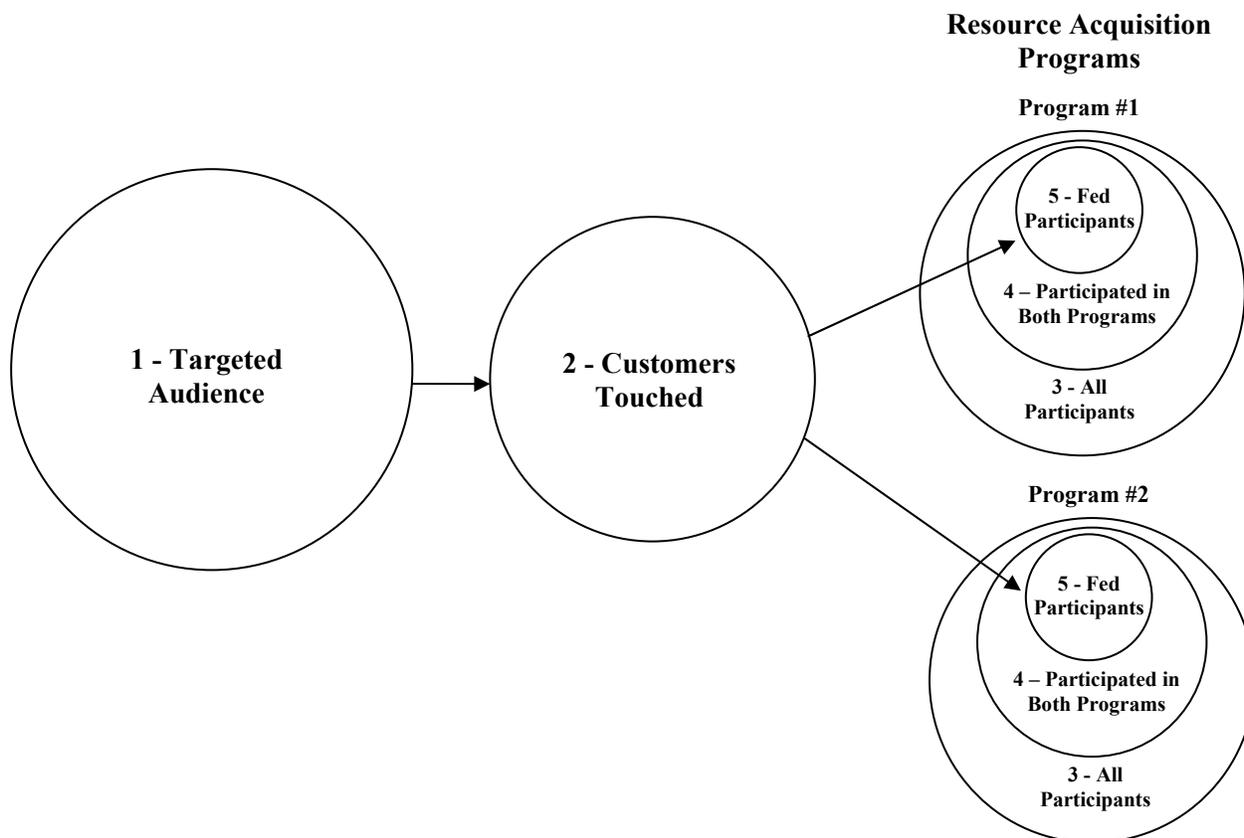
We describe these three approaches, as well as their value and drawbacks, below.

Figure 1 below shows the typical process by which channeling occurs. This figure does not attempt to depict the methodologies that we used but rather attempts to show the model for how channeling occurs. In the case of HEES, we already know the customers who are touched by the channeling effort (#2 in the figure) and we also know which customers participated in HEES and the resource acquisition program (#4) but we are trying to determine which of these customers are fed into resource acquisitions programs (#5) from HEES. The UTEEM advertising campaign is quite different because the only piece of this diagram that is known is the complete universe of

¹ There were no final results to show at the time that this paper was written; however some results will be included in the presentation at the conference.

customers who participate in resource acquisition programs (#3). Thus, our approaches have two different starting points.

Figure 1: Channeling Model



II. Home Energy Efficiency Survey (HEES) Program

The HEES Program allows customers to provide information about their home by completing a survey, and then receive an energy report with recommendations on how to save energy. The primary goals of HEES are to increase awareness of energy efficiency opportunities, encourage adoption of energy efficient practices, and induce a permanent change in attitudes and actions towards energy efficient products and services. Ultimately, the program seeks to provide information to help customers reduce usage.

One of the desired outcomes of HEES, however, is to encourage customers to participate in other energy efficiency programs (i.e., resource acquisition programs). The logic is that participants will read the energy report and then inquire into **recommended** energy programs, and then through these energy programs, replace and purchase high efficiency equipment.

HEES tries to attain this outcome by providing recommendations in the energy reports that encourage customers to participate in other programs. When the energy report is mailed out, they also include promotional inserts with the energy report; while the online version provides

links to other programs. For HEES participants that choose the in-home audit, the auditor verbally promotes programs during the visit.

In this information-only effort, we have the benefit of already knowing which customers were touched by the HEES program (#2 in Figure 1 above) and we also know based on our database crossing analysis which customers participated in HEES and the resource acquisition programs (#4) so our challenge is to determine the extent to which those customers were channeled into resource acquisition programs (#5 in the figure).

We do this in two ways, described further below.

Methodology A: HEES--Crossing Program Databases and Determining Influence Using a Survey

Crossing Program Databases

We compared Southern California Edison (SCE) customers that participated in the HEES program to participant lists for other energy efficiency programs offered by the utility including: the Single-Family Rebate, Appliance Recycling, Multi-Family Rebates, Summer Discount/AC Cycling, and 20/20 databases. If a customer participated in HEES and another program, we compared the month and year of participation in the other energy efficiency program to the date that the HEES survey was completed to determine if the participation occurred before or after HEES.² Those customers who participated in a resource acquisition program after HEES (based on our database review) represent the upper limit on the percentage of customers who might have been influenced by HEES to participate in other programs (#4).³

Determining Influence

Following the database review, we conducted telephone interviews with 187 SCE HEES participants who also participated in one of the resource acquisition programs after participating in HEES. We asked those customers who appeared to have been influenced by HEES (based on the database review) about the extent to which they were actually influenced.

We initially asked respondents, unaided, how they first heard about the program. We then asked participants to rate, on a scale of 1 to 5, where 1 is no influence and 5 is a great deal of influence, the influence that different factors had on their decision to participate in additional programs. The factors that we explored included statewide television or radio campaigns; utility bill inserts or mailings; HEES recommendations; newspaper advertisements; community events, fairs, festivals or home shows; and local government or local organizations. The responses represent customer perceptions of influence. We did not attempt to distinguish between some level of influence and whether the factor (e.g., HEES) was the tipping point or final reason why the customer participated in the program.

² We assumed customers who participated in both programs in the same month had participated in HEES first.

³ This is if you are looking only at the programs that we examined. The percentage of customers that were channeled into other programs would be higher if we consider additional programs.

Final Estimates of Influence

To determine overall effectiveness, we combined the results of our database review with the results of our telephone survey. Simply, we multiplied the percentage of customers who participated in another program after HEES by the percentage of customers who were influenced by HEES to participate in another program based on telephone interviews.

Number 5 in the figure above, therefore, is equal to:

(% that participated in other programs after HEES based on database review) * (% self-report some influence by the campaign).

Value of Approach

This approach allows us to estimate the total number of customers fed into other programs and incorporates participant feedback on the value of the information. Of the three approaches, this approach provides the most information on customer perceptions of influence because we followed up with telephone interviews to determine the extent of influence.⁴

Drawbacks or Challenges of Approach

To conduct the database review, we need a unique identifier, preferably account number, that is consistent across all of the databases. There is also a considerable amount of effort involved in coordinating databases, etc.

While this method provides an estimate of how many customers are influenced by HEES; it does not provide a reference point to know if participation in the resource acquisition actually increased as a result of the effort (see Methodology B).

Methodology B: HEES--Comparing Participants and Non-Participants Based on Database Analysis

We also analyzed the effectiveness of the HEES program at channeling customers into other programs by comparing “resource acquisition participation rates” of HEES participants and HEES non-participants. Similar to the database crossing of participants described above, we compared a randomly selected group of non-participants in 2004 and 2005 to participant lists for the Single-Family Rebate, Appliance Recycling, Multi-Family Rebates, Summer Discount/AC Cycling, and 20/20 programs. Non-participants do not have a participation date in HEES that can be compared to participation dates in other resource acquisition programs. As such, to compare HEES participants to non-participants we had to look at participation in the other

⁴ We followed up with customers between six months and two years after participation. Our research does not attempt to address the accuracy of this information, but we note that if we had been able to reach customers at the point of participation we may have been able to get more accurate information.

resource acquisition programs over comparable time periods, in this case, the entire 2004 and 2005 time period.⁵

Final Estimates of Influence

In this case, to determine overall effectiveness, we compared the results of the two populations. Note that (unlike the methodology above and the one that will be described below) our goal is to determine the increase in resource acquisition participation rates due to the informational effort. Therefore, our methodology seeks to compare the relative size of the customers “touched” by the HEES program (#4) to those that also participate in the resource acquisition program (#2) and compare it to the percentage of non-participants in the control group who participate in the resource acquisition program. This methodology seeks to put this information in context to determine if there is an increase in participation of the resources acquisition program specifically as a result of the informational effort.

Increase in participation rates due to information, therefore, is determined as:

[(% of participants that participated in resource acquisition programs in 2004/2005 based on database review) - (% of non-participants that participated in resource acquisition programs in 2004/2005 based on database review)]

Value of Approach

This approach includes a comparison group so that we can determine whether the number of participants in the resource acquisition program actually increased as a result of the informational effort. While the previous approach allows us to determine customers who are somewhat influenced by the program to participate in another program it can not determine whether there was an actual change in participation levels. This approach is also less costly because telephone interviews are not necessary. It is based solely on a database analysis.

Drawbacks or Challenges of Approach

One of the drawbacks of this approach is that it requires a comparison group, which may be difficult or costly to get (depending on the effort). For example, in the case of HEES, participants tend to be more likely to have taken actions or installed measures than non-participants. In addition, since this approach looks at percentage differences between participants and non-participants, it does not align to actual customers so you can not interview participants that were influenced by HEES, or analyze their usage or other characteristics. Similar to the previous methodology, there needs to be a unique identifier (e.g., account number) that is consistent across all of the databases.

⁵ We selected non-participants that would have been targeted by HEES based on usage and geography since the marketing of HEES is targeted. In the case of HEES, there were notable differences between participants and non-participants—most likely due to a self-selection bias among participants.

III. Univision Television Energy Efficiency Marketing (UTEEM)

The UTEEM campaign is a marketing and outreach program designed to increase awareness of and participation in residential energy efficiency programs by Spanish-speaking utility customers. The target market is Hispanics between the ages of 18 and 49, with a primary focus on customers who speak Spanish as their first or second language.

The primary component of the program is an annual schedule of 10-second and 30-second television commercials promoting energy efficiency programs and initiatives. Other components of the program include interviews on locally produced talk shows and news programming, and distribution of program materials and information at Hispanic-oriented outreach fairs and events throughout the State.

The television advertisements and marketing materials provide phone and web contact information that allows the targeted audience to access information about residential and small business energy efficiency programs in Spanish.

The primary goals of UTEEM are similar to HEES (i.e., increase awareness and knowledge of energy efficiency opportunities and induce a permanent change in attitudes and actions towards energy efficient products). These efforts differ however in that HEES is a utility-run “program” with a known “touched” group, while UTEEM is a marketing campaign where the reach of the campaign is somewhat unknown (that is, there are no known “touched” group.) Below we explore one methodology that can be used when the exact reach of a campaign is unknown.

Methodology C: UTEEM--Determining Influence by Surveying Customers who Participated in Programs Promoted by an Advertising Campaign

As shown above (in Figure 1), the approach used to measure channeling of the UTEEM marketing campaign is entirely different from the HEES program because the “touched” group is unknown (#2 in Figure 1). The only information that we have is a database of all customers who participated in the programs targeted by the advertising campaign (#3).

Grounding Efforts in the Program Databases

We first reviewed the UTEEM marketing campaign to determine which programs were being promoted and over what timeframe. Based on our review, we determined that the UTEEM campaign focuses primarily on appliances and measures promoted through two programs: (1) Single-Family Rebates and (2) Appliance Recycling.⁶

⁶ The advertising campaign also promoted energy efficient lighting and Online Home Energy Surveys but we did not include those programs in this analysis.

Only those customers who participated in the program after the UTEEM advertisements began running could have been influenced by the campaign. We analyzed the utility databases for the three targeted programs over the applicable date ranges to estimate the total number of participants who could have been affected by the media campaign.

Determining Target Population (A Special Case for a Spanish Language Effort)

Since UTEEM is specifically targeted to Spanish-speaking customers (and all messages are in Spanish), this approach requires that we cull the resource acquisition programs to specifically pull out the targeted population. (Not doing this would lead to a costly survey effort.) As such, we reviewed all of the names in the three program databases over the relevant timeframes to identify customers that appear to be of Hispanic/Spanish descent.

To identify Spanish surnames we used data available from Census information. We received a file from Census which included 25,276 unique Spanish surnames. The Census categorized those names into 28 different categories ranging from Heavily (Group 1) to Rarely Hispanic (Group 5). The Census also sent two additional lists – (1) the first three characters that often comprise Spanish surnames and (2) the last three characters that often comprise Spanish surnames. These lists can be used to supplement the analysis for surnames that are not in the Census' list.⁷

We used one resource acquisition program database which had a large total sample size and large number of participants who participated in Spanish to confirm our approach for determining the possible Spanish speaking population. By including any participant who had a surname that was at least Occasionally Hispanic (Group 4) and all surnames that did not match the Census list but include both the first three and last three characters that often comprise a Spanish surname, we captured 97.3% of the respondents who participated in Spanish and were able to cut the sample down to one-third of its original size.

We then conducted 300 interviews with Spanish-speaking program participants in the resource acquisition programs (150 from each of the programs). By conducting the interviews in Spanish, our survey screened for people who spoke Spanish fluently enough to possibly be influenced by the campaign.

Determining Influence Among Possible Targeted Population

During these 300 interviews we also asked whether the participant had seen any energy efficiency advertising, and more directly whether UTEEM influenced their program participation. Participants are influenced by the UTEEM campaign if they indicated that they had learned about the program by watching Univision or through a visit to a Univision booth at a special event.⁸

⁷ One additional approach (not examined in our research) would be a survey with targeted participants (i.e., a “census tract survey with a general population of Spanish speaking respondents). For our research, a boarded survey would have been cost prohibitive

⁸ Applies to questions U1, U2a, U2b, U3a, U3d, T5, T8, T9, E4, and E6.

Final Estimates of Influence

To estimate the percentage of all program participants that participated, at least in part, due to the UTEEM effort (#5 in figure 1 above) we calculated:

(Total number of resource acquisition participants) * (% that appear to be of Hispanic/Spanish descent, i.e., targeted group) * (% of Hispanics/Spanish participants actually speak Spanish based on interviews) * (% influenced by the campaign).

Value of Approach

Given that the actual reach of the campaign is unknown, and a broader general population type survey (in this case, Hispanic survey) would be costly, this method provides on possible approach so that you can estimate the percentage of all program participants that participated, at least in part, due to the marketing campaign. In addition, if the targeted population is known, it can tell you the percentage of the total targeted population that participated in the targeted programs, at least in part, due to the effort. Since this approach includes interviewing it also incorporates customer feedback on the value of the advertising message along with valuable information on the demographics of the target market.

Drawbacks or Challenges of Approach

It is important to realize that this approach does **not** allow for us to provide quantitative findings on the percentage of the targeted market that are aware of and/or saw the campaign.

Because the targeted population of the resource acquisition programs (all Californians) is not the same as the targeted population for the informational effort (Spanish only) this approach also requires us to estimate the “targeted population.” Our approach includes a possible false assumption that only people with Spanish-looking surnames are of Hispanic/Spanish descent and only people with Spanish-looking surnames can speak Spanish and be influenced by the marketing campaign. In the case of UTEEM, there is also a ‘realized’ false assumption that only people with Spanish-looking surnames can speak Spanish and be influenced by the marketing campaign. In addition, it requires a fair amount of time to fix the customer surnames so that they can be matched to the Census list.

IV. Summary of Values and Unique Challenges of Approaches

In summary, there are a couple of different indicators that could be measured (the population fed and/or the increase in participation rates) with these approaches. There are also different starting points for each approach (given the types of data collected).

Common challenges or drawbacks to each of the approaches include the difficulty of obtaining multiple program databases, which are often housed in different locations and may not be formatted the same. While the percentage of customers “channeled” into resource acquisition programs increases as you are able to review more of the targeted programs, it is challenging to work with informational programs which often have goals of feeding customers into multiple

resource acquisition programs. It should also be mentioned that these approaches do not attempt to look at the reasons for non-participation (such as the fact that some of the population may have participated in these programs the year before, or have recently purchased all new appliances and/or a new home that would not be in need of this program.)

Given perfect information, we think that Methodology B (comparing participants and non-participants) is the best of the three approaches and is also a lower cost option. However, the information necessary (i.e., account numbers for participants and a non-participant control group and access to full program databases) to use the second approach may not always be available. For example, in the case of UTEEM, there is no participant list or non-participant comparison group.

The methodology that is used will be based on the information that is available. In general, a marketing campaign with an unknown “touched” group would require using the third and higher cost approach.

Table 1 below summarizes when you can use each approach, the starting point, the research methods, and the benefits and drawbacks associated with each approach.

Table 1: Summary of Three Approaches To Understanding Channeling Effects of A Program or Campaign

Method./ To Assess	Use if...	Starting Point	Research Methods	Value of Approach (Benefits)	Unique Challenges of Approach (Drawbacks)	Common Challenges of Approach (Drawbacks)
A.	Known Touched Group	Touched Group	Database crossing; Survey of Touched Customers (participants)	<ul style="list-style-type: none"> • Gives the most information on the influence of the effort <ul style="list-style-type: none"> ○ Incorporates customer feedback on the value of the information ○ Allows you to estimate the total number of customers fed into other programs 	<ul style="list-style-type: none"> • No comparison group, so you don't have a reference point to know if participation was increased as a result of the effort • Requires a unique identifier (e.g., account number) that is consistent across all of the databases 	<ul style="list-style-type: none"> • May require looking at multiple program databases, which are often housed in different locations and may not be formatted the same. The percentage of customers channeled into other programs would be higher if additional programs are considered. • Does not attempt to look at reasons for non-participation (such as the fact that some of the population may have participated in these programs the year before, or have all new appliances and/or a new home that would not be in need of this program.)
B.	Known Touched Group and Comparison Group	Touched Group	Database crossing	<ul style="list-style-type: none"> • Comparison group so that you can determine changes (whether participation was increased) • No interviews necessary; database analysis only (so less costly) 	<ul style="list-style-type: none"> • A matching comparison group may not be available (or may be difficult/costly to get) • Requires a unique identifier (e.g., account number) that is consistent across all of the databases • Does not align to actual customers 	
C.	Unknown Touched Group	Participants in Resource Acquisition Programs	Survey of Targeted Customers Participating in Resource Acquisition Programs (i.e., based on sample pulled from "other program" databases)	<ul style="list-style-type: none"> • If the targeted population is known, it can tell you the percentage of the total targeted population that participated in the resource acquisition programs, at least in part, due to the effort • Incorporates customer feedback on the value of the information 	<ul style="list-style-type: none"> • Findings can indicate some level of effectiveness, but will not be able to provide quantitative findings on the percentage of the targeted market that were touched (i.e., are aware of and/or saw the UTEEM campaign) • Requires an estimate of the "targeted population," which may be difficult to get or inaccurate <ul style="list-style-type: none"> ○ In our example, there is a likely false assumption that only people with Spanish-looking surnames are of Hispanic/Spanish descent and only people with Spanish-looking surnames can speak Spanish and be influenced by the marketing campaign ○ Requires a fair amount of work to manually fix the customer surnames so that they can be matched to the Census list 	