

# ***Beyond Awareness: An In-Depth Look at Participation Barriers for the Hardest-to-Reach***

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## **ABSTRACT**

Engaging nonparticipants can be challenging, and in some cases can seem nearly impossible. Yet doing so is increasingly important as we view energy efficiency programming from the lens of equity, working to ensure funds and services are distributed across all populations.

In 2020, the Massachusetts Program Administrators (PAs) completed an unprecedented research study to better understand nonparticipating customers, and their needs and barriers. This study investigated and provided forward-looking insight into their efforts to serve all customers, with a particular focus on moderate income customers, renters, and non-English speakers. A key part of this effort was exploring the pervasive barriers and multi-dimensional characteristics of customers with relatively lower historical participation rates.

The study initiated extensive research to characterize and investigate barriers, including: community organization interviews; nonparticipant surveys using an especially rigorous methodology integrating multi-lingual and multi-modal outreach strategies, and; intercept and telephone interviews. The research included over 1,500 residential customers, prioritizing the hardest-to-reach nonparticipants.

This study illustrated the complexity of nonparticipants' needs and issues, and the need to go beyond standard strategies (e.g., customer segmentation) to understand nonparticipating customers. The research methodology also provided empirical evidence that nonparticipants are more challenging to reach in general, as seen through their response to surveys and research requests.

This paper describes participation barriers uncovered across key groups of interest, including renters, property managers/owners, and income-qualified customers. Further, it illustrates the multi-dimensionality and complexity of these barriers. Finally, the paper summarizes how this work is being integrated into the PAs' program planning.

## **Introduction**

In 2018, the Massachusetts Program Administrators (PAs) filed and received approval for their Joint Three-year Electric and Gas Energy Efficiency Investment Plans. The PAs, as part of their 2019 – 2021 Energy Efficiency Plan, agreed to conduct evaluations in 2019 that assessed participation levels and unaddressed barriers to participation among residential customers. The PAs agreed to focus on three groups of interest: 1) renters, 2) low-to-moderate income customers, and 3) non-English speaking populations.

In response, the PAs and Energy Efficiency Advisory Council (EEAC) undertook two studies to characterize residential nonparticipants of the Massachusetts statewide program, Mass Save<sup>®</sup>, and investigate barriers to participation.

The first study, the ***Residential Nonparticipant Customer Profile Study (Customer Profile Study)***, assessed relationships between participation rates and select customer characteristics. This study relied on secondary data sources including program participation tracking data and US Census American

Community Survey data. The results of this effort, conducted by DNV GL, are not included in this paper, but available on the EEAC website.<sup>1</sup>

The ***Residential Nonparticipant Market Characterization and Barriers Study (Market Barriers Study)***, and the focus of this paper, used primary data sources to characterize residential nonparticipants. ILLUME Advising, in partnership with Cadeo under subcontract to Guidehouse (the evaluation team), conducted this research<sup>2</sup>.

A core objective of the Market Barriers Study was to identify and characterize participation barriers from fresh and open-minded perspectives. The PAs and EEAC believed they understood many of the barriers; however, they wanted to dig deeper into the different groups and not only validate that understanding, but also identify any themes and issues that may not be so apparent.

To achieve this objective well, it was imperative to identify a rigorous methodology to describe nonparticipants as accurately as possible. The PAs completed many residential general population studies over the years to characterize awareness, participation, and specific segments of the market (such as the Moderate Income Market Characterization<sup>3</sup> and the Massachusetts Statewide Brand Awareness Studies<sup>4</sup>). The research, which generally showed relatively high awareness in Mass Save programs, raised questions as to whether the results represented the full residential population, and specifically whether they sufficiently captured nonparticipants.

Addressing this challenge was of utmost importance for the Market Barriers Study. The PAs and EEAC wanted to be sure that this study did everything possible to speak with and accurately characterize nonparticipants and therefore tasked the evaluation team to approach the research methodology as rigorously as possible.

## Methodology

The study employed a holistic quantitative and qualitative research design. The quantitative survey represented the population of nonparticipants and participants. The qualitative research delved deeper into nuanced barriers not directly identified through the quantitative research. In the end, the evaluators designed the research to ensure that the individuals that participated in the research were not the most likely to also participate in the program, a common response bias concern for nonparticipant surveys in general.

### Survey Sampling Methodology

The survey sampling methodology balanced inclusivity (i.e., every customer in the state could be sampled) with targeting nonparticipating customers (the critical population of interest for this research). The survey sample frame used PA residential customer data (inclusive of multifamily units) that included a flag indicating whether that building or location participated in a PA-sponsored program (excluding upstream lighting and behavioral programs) between program years 2013 and 2017.

The team first organized the customer data into census tracts, and stratified census tracts within participation quartiles, bifurcating the lowest participating quartile into two strata resulting in five total strata. The evaluation team then took a dual staged stratified random sampling approach to select the

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<sup>1</sup> [http://ma-eeac.org/wordpress/wp-content/uploads/MA19X06-B-RESNONPART\\_Report\\_FINAL\\_v20200228.pdf](http://ma-eeac.org/wordpress/wp-content/uploads/MA19X06-B-RESNONPART_Report_FINAL_v20200228.pdf)

<sup>2</sup> [https://ma-eeac.org/wp-content/uploads/MA19R04-A-NP-Nonpart-MarketBarriersStudy\\_Final.pdf](https://ma-eeac.org/wp-content/uploads/MA19R04-A-NP-Nonpart-MarketBarriersStudy_Final.pdf)

<sup>3</sup> <http://ma-eeac.org/wordpress/wp-content/uploads/Moderate-Income-Market-Characterization-Report-Final-16Mar2018.pdf>

<sup>4</sup> <http://ma-eeac.org/wordpress/wp-content/uploads/Final-2018-MA-Awareness-Survey-Report.pdf>

sample frame. Given the importance of reaching and speaking with nonparticipants, the approach systematically oversampled nonparticipants, although the results were weighted to represent statewide participation rates.

Table 1 details the results of this sampling approach. As one can see, the study clearly sampled locations flagged as nonparticipants at a higher rate.

Table 1. Sampling Strata and Target Completes by Strata

Stratum	Participation Rate Range	Census Tracts Sampled	Target Completed Surveys	Target Participant Surveys	Target Nonparticipant Surveys
1	Less than 20.7%	13	910		
2	20.7%-25.9%	6	420		
3	25.9%-32.4%	9	630	950	1,780
4	32.4%-38.8%	7	490		
5	More than 38.8%	4	280		
		<b>39</b>	<b>2,730</b>		

### Survey Implementation Methodology

There is supporting evidence showing that groups of interest within this study—particularly lower income and limited English proficiency customers—are less likely to respond to surveys and require a higher concerted survey effort. In fact, the US Census Bureau identified these less responsive groups to determine areas that will likely require more intensive survey follow-up for the Census. These groups include the same as those targeted by the terms sheet: renters, racial and ethnic minorities, low income persons, and persons who do not speak English fluently.<sup>5</sup> The Census Bureau also recognizes “persons who have distrust in government” as a hard-to-contact or hard-to-interview group, an important sector discussed later in this paper.

The evaluation team therefore designed the survey methodology with the objective of maximizing response, particularly among nonparticipants, and minimizing nonresponse bias as best as possible. Considerable research demonstrates that survey modes can elicit survey responses from differing demographic groups (as summarized in Dunn and Schauer 2019 and Dillman, Smyth, and Christian 2014). It was therefore important to identify means to gather perspectives from as many individuals within these subgroups as possible.

The evaluation team adopted a multimode survey approach with multiple touchpoints and encouragement opportunities to maximize response. The survey approach included four activities with the following touchpoints and engagement strategies:

- **Web survey:** The evaluation team invited all sampled households to participate in a web survey through email (where email was available) and advanced letters (sent to all sampled respondents). The evaluation team sent second reminder invitations to nonresponders after the web survey was open for approximately a week and a half. Respondents received a \$20 prepaid

<sup>5</sup> <https://www.nonprofitvote.org/nonprofitscount/who-is-hard-to-count/> and <https://www.censushardtocountmaps2020.us/>

Visa gift card for completing the entire survey. The web survey remained open the entire field period (about eight weeks).

- **Telephone survey:** Approximately three weeks after the initial web survey invitation, the research firm attempted to reach nonresponding households focusing on nonresponding nonparticipants. Respondents received a \$20 prepaid Visa gift card for completing the entire survey.
- **Abbreviated mail survey:** The team mailed a survey to all households that did not respond to the web or telephone effort. To maximize response, the mail survey was an abbreviated version of the web/telephone survey, including the most critical demographic and awareness questions. A \$5 pre-incentive was included with the mail survey. In addition, respondents received a \$20 prepaid Visa gift card for completing the survey.
- **In-person, door-to-door survey:** Finally, the evaluation team selected nonresponding nonparticipants from the eight lowest responding census tracts to visit door-to-door to complete the abbreviated mail survey and sent advanced notifications to these homes. The team left postcards at homes where target respondents did not answer the door or were not home letting them know the evaluation team was there and offering a telephone number to contact to complete the survey. Three teams of two researchers completed the in-person surveys. Two of the three teams spoke Spanish or Portuguese. Respondents received a \$20 Visa gift card onsite for completing the survey.

The team provided all materials in English and translated into three languages: Spanish, Portuguese, and Chinese (Mandarin). The researchers selected these languages based on publicly available documentation of languages spoken in homes, including the US Census and top languages reported by Massachusetts Public Health Strategy and Communications.<sup>6</sup> The survey also asked about languages spoken in home and captured that information even if the respondent completed the survey in English.

This effort resulted in 1,609 completed surveys, yielding a 24% response rate. Of these, nonparticipants completed 836 surveys and participants completed 773 surveys.

## Qualitative Research

For years the PAs, EEAC, and evaluators speculated that general population research tends to engage participants at a proportionately higher rate than nonparticipants. Further, while survey-based research is valuable in broadly characterizing nonparticipants, the study needed qualitative, and ideally ethnographic, research to dig deeper into participation barriers. The survey included questions related to barriers, including attitudinal indicators and open-ended questions, but the survey results alone missed customer-specific nuances. These nuances are important for really trying to understand customers' needs, perceptions, concerns, and barriers to participation.

The evaluation team therefore integrated extensive, in-person as well as phone-based qualitative interviews. These efforts were extremely valuable in further fleshing out the story around nonparticipants' needs and concerns.

Specifically, the evaluation team completed door-to-door interviews (n=14), intercept interviews at community organizations that agreed to have the team stationed outside their location (n=59), customer follow-up interviews (n=16), and landlord and property manager interviews and surveys (n=24). These qualitative research activities delved deeper into customers' understanding of Mass Save,

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<sup>6</sup> Office of Public Health Strategy and Communications. Translation Toolkit: Foreign Language Guide. Revised October 2010. <https://www.mass.gov/files/documents/2016/07/ot/appendix-f-language-audience-guides.pdf>

past or potential participation, and day-to-day concerns and needs. These efforts also reduced collection bias by reaching nonparticipating customers who may not be apt to respond to surveys.

The intercept interviews were particularly useful as they allowed the researchers to conduct true ethnographic research, observing respondents’ reactions and responses in the context of their natural day-to-day setting.

Table 2 summarizes the number of respondents by the various modes.

Table 2. Completion Rate and Targeting Strategy by Survey Mode

Mode	Targeted	Number of Respondents (n)
Web	All sample	753
Phone	Primarily nonparticipants nonresponsive to mail	101
Abbreviated Mail	All households nonresponsive to web/phone with deliverable addresses	735
In-person	Nonresponsive nonparticipants in eight census tracts with lowest survey response	24
		<b>1,613</b>

The various research modes reached different groups of interest, which could provide insight into effective program outreach strategies. Specifically, as illustrated in Figure 1:

- **Web surveys** captured individuals who were higher income, more aware of Mass Save and/or Income Eligible offerings, and more likely to have a college degree. Web also captured more renters than mail, but fewer than phone.
- **Mail surveys** captured lower income households and more limited English proficiency customers compared with web respondents. Mail surveys also captured a higher percentage of retirees.
- **Phone calls** focused on reaching nonparticipants, and captured a higher proportion of renters, lower income households, and those without a college degree. Phone respondents aligned more closely with mail respondents.

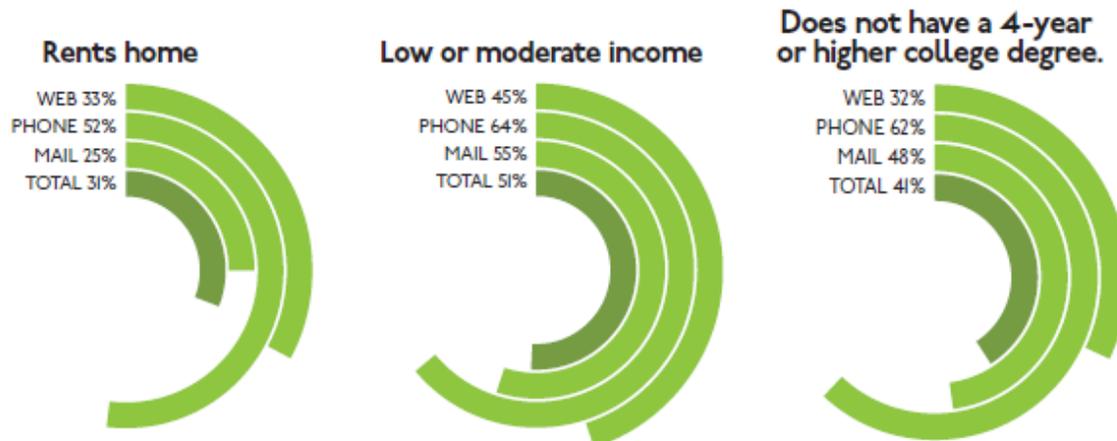


Figure 2. Response by Mode by Rental Status, Income, and Education

## Results

Energy efficiency programs are, in large part, designed to overcome financial barriers, which is often a focus of the program's theory and implementation strategy. However, the most common reasons that non-participants give for not participating in Mass Save programs are: (1) not being aware of program offerings (27%), (2) thinking that their house is already energy efficient (23%), (3) not wanting to deal with the hassle of participating (22%), or (4) not having the time (19%). Conversely, 7% of nonparticipants noted inability to afford the purchase as a reason for nonparticipation. This insight illustrated to the PAs that they need to address non-financial as well as financial barriers.

The research identified several consistent themes around non-financial barriers to participation. Customers who do not trust the legitimacy of the program may prioritize other areas of their lives. This may lead them to feel that the program is not relevant to them, especially if they do not understand the benefits that energy efficiency offers (knowledge).

Although discussed separately, the barriers identified are inextricably interconnected. The themes include:

1. **Knowledge:** A lack of knowledge and understanding of the programs and energy efficiency benefits stood in the way of participation
2. **Relevance:** Customer participation was inhibited by a sense that the program was not relevant to them
3. **Trust:** Interviews found that trust, or lack thereof, in program legitimacy and offerors was prevalent among all groups this study investigated
4. **Prioritization:** Energy efficiency only becomes a priority when basic needs are met

The following explores each barrier theme in turn.

### **Knowledge: Lack of True Understanding**

Ask someone the question – are you aware of MassSave® (the branded umbrella of Massachusetts' energy efficiency programs), and chances are they will say yes. In fact, nearly three-quarters of survey respondents said they are aware of MassSave, with about 70 percent of nonparticipants citing awareness.

The intercept and door-to-door interviews found the same, with many knowing the brand name MassSave. However, there was lack of understanding or clarity of what it means to participate in MassSave, what it entails, and the benefit they would receive from doing so. In fact, there was a moment in a community action program (CAP) agency where interviewers spoke with an individual who had no knowledge of the program and services, when there was a large poster describing it right behind him.

Some of those who were knowledgeable enough about the services simply did not understand what would be expected of them, which was enough to thwart participation. Most of these individuals assumed participation would be complicated and were intimidated by the idea of navigating through the several steps of participation. Specifically, nonparticipants were unfamiliar with the steps that would be required to participate and hesitated to participate if they did not know what they were getting into.

This hesitation to participate without a true understanding of the process was especially pertinent among limited English speakers. They not only struggled with understanding program

participation processes, but also vocalized hesitation to participate due to their concern over being taken advantage of. Interviewees who discussed this issue raised the need for translation and personal support to help them interpret program requirements accurately and alleviate their concerns. They spoke of the need to not just translate program applications, but to offer support in their language through every program step.

The PAs, EEAC, and Massachusetts Equity Working Group were especially interested in this issue and are currently investigating this participation barrier for limited English proficiency customers. They are working with evaluators to conduct a targeted study to better understand their journey through the program and points where they drop out of the process, starting with their point of awareness and consideration of participation. This in-depth, qualitative study will also include responses to outreach and marketing materials and identify with these customers opportunities for better engagement and to encourage participation.

Related to knowledge and understanding, it is important to call out education, including literacy, and how that relates to participation. Program participation requires someone be able to read and process what are, at times, seemingly complex instructions. The survey analysis found that education is a strong predictor of participation with those having post-secondary education more likely to participate. As another potential indicator of literacy affecting engagement, the telephone survey reached a higher proportion of respondents that do not have a 4-year degree or higher; 62% of telephone survey respondents said they do not have a 4-year or higher college degree, compared with 32% of web and 48% of mail survey respondents (although this is an assumption not tested in this research).

Assuming survey mode is an indicator of outreach effectiveness for specific populations, one could surmise that reaching those less educated or with literacy needs (which correlate highly to the groups of interest) will require more interpersonal outreach methods. Further, getting them to move beyond awareness to full participation will also require more personalized service.

### **Relevance: This isn't for me**

Surveys and interviews probed nonparticipants that are aware of but have not participated in MassSave programs – why not? Many responded in variations of the theme that the programs are not relevant for them, so they have no use for them. The most common types of responses included:

“This isn't for me.”

“I will not qualify, I've been rejected before.”

“My home is already energy efficient.”

“Energy efficiency programs are targeted to those who can't afford it, not me.”

“It's my landlord's responsibility, not mine.”

Interestingly, while some respondents associated MassSave with lower income offerings, others associated energy efficiency programs with something available only to those who could afford it, insinuating it is a luxury to be able to participate in something that will make a home more efficient. Neither of these groups saw the programs as relevant for them, nor did they recognize that MassSave attempts to serve all classes of customers through energy efficiency.

Finally, it is important to note how customers perceived terms like weatherization or energy efficiency, which are used so often in outreach and recruitment language, and how they relate to their lives. When asked to share what “energy efficiency” meant to them, customers gave a variety of answers. Some thought it was related to the recent federal lighting efficiency standards or basic home infrastructure but could not elaborate much further. For others, the term was completely unfamiliar.

Not associating with these terms lead customers to believe the programs are not relevant to them. These customers that do not associate with these terms are likely ignoring marketing materials that rely on such language.

### **Trust: Concern for livelihoods and distrust of motives**

Trust is an issue for all three groups targeted in this research: limited English proficiency, renter, and moderate income customers. Below describes some of the issues and opportunities identified through the research, focusing first on limited English proficiency customers and renters, then in general.

**Limited English proficiency customers.** The evaluation struggled to reach limited English proficiency customers. Statistically, the representation of non-English speaking residents was consistent with that reported by the Census (each at 23%).

However, based on the qualitative research, the evaluation team believes that both these statistics may underrepresent households that have limited English proficiency and are unresponsive to any survey effort, including that administered by the US Census Bureau. The door-to-door research, which focused on the areas of the highest non-response, found many of the households that opened the door to interviewers were multi-lingual or limited English proficiency. A few of these “door-openers” responded to our surveys, but a majority refused, most without comment as to why.

The few door-to-door surveys the evaluation team completed revealed reasons for refusals, identifying barriers around distrust among limited English proficiency customers, which may affect researchers’ ability to represent their perspectives in nonparticipant research. One Spanish-speaking individual went so far as to say her spouse would be very unhappy if he knew she was speaking with us as he is concerned about the government and deportation.

What was particularly interesting about these discussions is the extent to which respondents, and this non-English speaking group in especially, associated utilities with government. Open-ended responses in the survey also identified this area of confusion, associating MassSave with a governmental program. This perception is particularly problematic with households that are not residents of the country and fear governmental involvement in, or knowledge of, their life.

Interviews with community organizations corroborated the barrier of government distrust with this group. They shared the importance of having a trusted organization or individual who associates with the resident to work alongside the programs as a means to courage participation.

There is a perception among some customers that Mass Save is a governmental program. While both participants and nonparticipants generally said they trust their local utility as a source of energy saving related information (which ranked second to neighbors, relatives, and friends in trust level), an association with government could elicit distrust in Mass Save if they associate the programs with the government versus the utilities. Further, nonparticipants were less likely to perceive community action program agencies a trustworthy source for gathering energy-related information, which could have implications for low income qualifying nonparticipants. These perceptions will be important for the PAs to continue to tackle as they seek to engage nonparticipants.

“When we came to the US, my husband told me never to share any information because it could be used against us in the future. Have you seen the new policies the current administration has implemented? He was right all along.”

*(Door to door respondent, 2019)*

“We don't want to ask for any type of help with programs like that because it could be used against us later to change citizenship status.”

*(Survey respondent, 2019)*

**Renters.** Homeownership represents the greatest driver in differences in participation with renters significantly less likely to participate than homeowners (26% of renters surveyed reside in buildings flagged as participants compared with 34% of homeowners).

Renters are typically reliant on their landlords and property managers to make decisions related to home improvement. Further, there are situations where landlords and property managers of income qualified or subsidized housing may not want any organization inspecting the building.

As a result, many renters believed it was unlikely their landlords would do anything beyond making minimum repairs to the building. When asked if they had talked to their landlords about home conditions or concerns, one interviewee described feeling uncomfortable doing so about “things he needs to do.” Another interviewee was so reluctant to talk with their landlord that when their air conditioner stopped working, they opted to go out and buy a portable unit instead of asking their landlord for help. These types of issues stem from a lack of trust in that landlord relationship.

**General feedback.** In addition to the above, customers cite the following additional issues that affect their trust in the offerings:

- **Nothing is free.** This issue presents a double-edged sword. On one hand, program interventions, including no-cost services, reduce the cost barrier for customers. On the other hand, there is a clear distrust in the offering with the idea that nothing is free. Even if they were interested in learning more about the PA’s program offering, they still believed there must be hidden costs or motives.
- **There must be an underlying motivation for my utility to offer this that isn’t about me.** While customers said they think of utility companies as legitimate and trustworthy entities, most of their interactions with their utility is limited to paying their monthly bills. They think of utility companies as businesses selling power to generate profit, and therefore, struggled with the concept that a utility would encourage lower energy use.
- **Inability to pay bills create fear of their utility.** Some customers, especially lower income customers, experienced times when they could not pay their utility bills and had their electricity cut off or received delinquency notices. These experiences created a general sense of distrust toward their utility and, in some cases, fear of utility communications. This issue may be even more relevant during and after the pandemic as an increasing number of customers needed assistance and had trouble paying bills due to lost jobs.

### **Prioritization: There are more important things in life**

A key barrier the evaluation team heard within this research, as well as other studies (such as the Massachusetts Low Income Program process evaluation), is prioritization. Customers, especially lower income customers, face competing demands for their time and resources.

Some nonparticipants interviewed therefore deprioritized participation unless there was a sufficiently large benefit to warrant the time, and/or their bill was simply unreasonably high. One interviewee stated it would take her bill being “astronomical” to consider participating.

Part of the reason for the hesitation is the perception of time it will take to participate in the process. For example, participating in an assessment program requires the participant to schedule the assessment, be at home, wait for a technician, be available for the assessment, review and discuss results, and potentially consider follow-up activities. This all takes time, arguably one of the most valuable resource people have.

Additionally, there is the reality that basic needs take priority over energy efficiency, which people do not often see as a necessity. Customers, especially those from lower income households, described prioritizing basic needs (food, shelter, jobs/income, child or parent care, regaining custody of children, etc.) before they could begin to think about energy efficiency. For them, it is about keeping the lights on more than spending money or time to upgrade their equipment for the sake of saving energy.

### **Real-life Illustrations of the Inextricably Intertwined Barriers**

The numbers are important. The trends are important. But when hearing *the story* it is possible to see how deep and inextricably intertwined these barriers are for nonparticipating barriers. The PAs' challenges, and all utilities' challenges when striving for equity, is to engage with individuals within the context of their unique lives and needs.

Below are several case studies highlighted within the study, gathered through the intercept interviews. Consider what they say about the individuals and their most pressing needs and issues in their lives, within the context of energy efficiency programs.<sup>7</sup>

**Matthew: fighting for what is most important to him (barrier: prioritization).** Matthew recently reentered after being incarcerated and had found housing. The rent of \$850 per month would be impossible for him to meet if he could not find a job. He was working with a case worker to find a job, and for that reason had visited the organization that day, but without success. Finding a job and keeping the apartment were of paramount importance to him because he was hoping to gain back custody of his child who had been placed in foster care. In this context, energy savings and energy efficiency were neither a priority nor even a marginal concern of his.

**Ana: disconnected, surprised, and concerned (barriers: relevance, prioritization and trust).** Ana, who worked at a CAP agency, shared her challenges with her energy and utility company, saying, "[It's November and] they just turned my mother's gas off...And we have children in my home." She explained that they owed \$117 on the bill and had paid \$90 but could not pay the bill in full. She was distraught that the gas had been turned off just at the beginning of winter, and worried for her children. Although she was interested to hear about program offerings, all of them seemed irrelevant compared to her urgent need to have her gas turned on again. Instead, access to heat was her primary concern.

**Shannon: denied and disempowered (barriers: knowledge, trust, prioritization).** Shannon came to the organization in hopes that they would help to place her in a family shelter or transitional housing facility. The last time she applied for assistance she was told that she made \$100 too much and therefore didn't qualify for a housing voucher or placement in a shelter. She was interested in the Mass Save program offerings and thought that her current home could benefit from energy efficiency improvements, but her focus was on getting herself and her family into their own home, and only at that point could she consider energy efficiency improvements. She mentioned that the process of moving out proved difficult and discouraging as she was ineligible for services on multiple occasions for earning just over the eligible amount.

### **Moving the Barriers Research Forward**

A common concern about research and evaluation studies is that the results will head to the shelf and sit there and not be used. This is not the case with this research; the PAs and stakeholders,

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<sup>7</sup> Actual interviewees, names changed.

including the Massachusetts Equity Working Group, have been actively referring and integrating these findings into their program planning and implementation.

In 2021, the Massachusetts submitted their draft 3-year plan, which will span from 2022 – 2024<sup>8</sup>. In this plan, the PAs highlight equity as a key priority area (in addition to electrification and workforce development). Equity, as defined in plan, is *“the process of establishing more equal access to and participation in energy efficiency, particularly among those groups who have historically participated at lower rates, including renters/landlords, moderate-income customers, English-isolated families, and microbusinesses”*.

Based on their experiences, the research completed in the 2019 – 2021 program cycle (including this study) and considerable stakeholder feedback, the PAs recognized the need to establish initiatives and implementation strategies that address both financial and non-financial barriers. Example strategies include:

- Improved municipal and community partnerships
- Enhanced incentives for moderate-income customers
- Targeted programming to communities
- Addressing language barriers
- Increased outreach to renters

The three-year plans also directly references the characteristics and barriers to nonparticipants and challenges for serving specific sectors. The plan notes that program designs will target strategies to address the areas of concern and includes strategic intervention strategies and specific tactics to address each barrier. Below is an excerpt related to moderate income customers.

EQUITY: MODERATE INCOME			
Goals			
<ul style="list-style-type: none"> <li>• Increase the number of moderate-income customers participating in energy efficiency programs.</li> <li>• Introduce new incentives that make energy efficiency upgrades more affordable for moderate-income customers.</li> <li>• Create greater ease of access to weatherization and HVAC incentives for moderate-income customers.</li> <li>• Streamline the verification process to income qualify for enhanced incentives.</li> </ul>			
Barriers	Example Tactics	Applicable Initiative(s)	Short, Mid, Long-Term
<ul style="list-style-type: none"> <li>• Customer awareness of services and incentives</li> </ul>	Continue to offer 100% weatherization incentive for moderate-income customers, and make adjustments as necessary	RCD	S
	Offer new enhanced incentive on HVAC equipment for moderate-income customers and in conjunction provide information about the HEAT Loan to cover the balance. Each PA may target geographic areas for the enhanced incentive	Retail	S
<ul style="list-style-type: none"> <li>• Customer understanding of priority and relevance</li> </ul>	Streamline the moderate-income verification process, offering verification options that minimize customer effort, based on which verification options are applicable to the customer	RCD	S

Figure 2. Excerpt from the Massachusetts Joint Statewide Electric and Gas Three-year Energy Efficiency Plan (2022 – 2024), dated April 30, 2021, page 59

## Conclusion

This study has been valuable to the PAs in their efforts to advance their efforts in influencing customer behaviors, perceptions, and building efficiencies while seeking to equitably serve customers.

<sup>8</sup> <https://ma-eeac.org/wp-content/uploads/Exhibit-1-Three-Year-Plan-2022-2024-11-1-21-w-App-1.pdf>

The research not only identifies important barriers, but also served as a proof case for the challenge of reaching nonparticipants and additional implementation and outreach efforts needed to effectively do so.

This research effort took an extensive approach to attempting to understand nonparticipants. Given the current regional and national emphasis on equity and serving those historically underserved, in-depth research into these groups will undoubtedly continue. This will become an increasingly relevant and important issue in light of diminishing cost-effectiveness of traditional energy efficiency programs, continued emergence of distributed energy resource (DER) programs, and evolutions in policies related to beneficial electrification and renewable energy sources.

As an industry, it is appealing to classify customers by a specific characteristic. Low income programs look to serve low income customers. Multifamily programs look to serve renters and property owners and managers. This structure to targeting and serving customers is efficient and makes sense from a cost-effectiveness standpoint.

That said, this study illustrated the importance of recognizing the kaleidoscope of differences inherent within individuals' personalities, attitudes, decision-making, and circumstances. Recognizing and adapting to the unique barriers within groups beyond simply those being targeted in traditional program design will become increasingly important as equity objectives come to the forefront of state policies. Doing so requires embedded outreach and service strategies with the intent of equitable service.

The elephant in the room, and the issue that utilities and policymakers have to grapple with, is that reaching and serving nonparticipants is more expensive than reaching the general, and often less disadvantaged, population that is more likely to participate. The interpersonal research method (intercepts and door-to-door) and community organization partnerships were critical for reaching this group. From a research perspective, they were more expensive approaches, but also important for reaching a group that would never have been included without that approach. This finding likely has direct parallels to program implementation.

The Massachusetts PAs, EEAC, and stakeholders such as the Equity Working Group<sup>9</sup> are making good use of this research. They are directly integrating the results into their next three-year plan, and establishing metrics and strategies to further the goal of enhanced equity and inclusion. They are also not stopping here; they continue to investigate the unknown through additional research including a targeted study to linguistically isolated customers and the barriers and engagement opportunities for this especially challenging group.

## References

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<sup>9</sup> The Equity Working Group is a stakeholder working group established by the EEAC in May 2020 to prioritize initiatives that help ensure that all customers receive equitable access to benefits.

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