

Waste Management Latino Outreach Pilot

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Executive Summary

In 2016, Waste Management (WM) hired C+C, a social marketing agency, to research the effectiveness of different recycling education outreach methods among Spanish-speaking Snohomish County WM Washington Utilities and Transportation Commission (WUTC) single-family residents. The team approached the study through a behavior change perspective, identifying at which stage of the Behavior Change Continuum (Figure 1) participants are located (Awareness, Understanding, Relevance, Behavior Change, Satisfaction and Trust). The project aimed to identify where, if anywhere, in the Behavior Change Continuum different outreach methods have an impact.

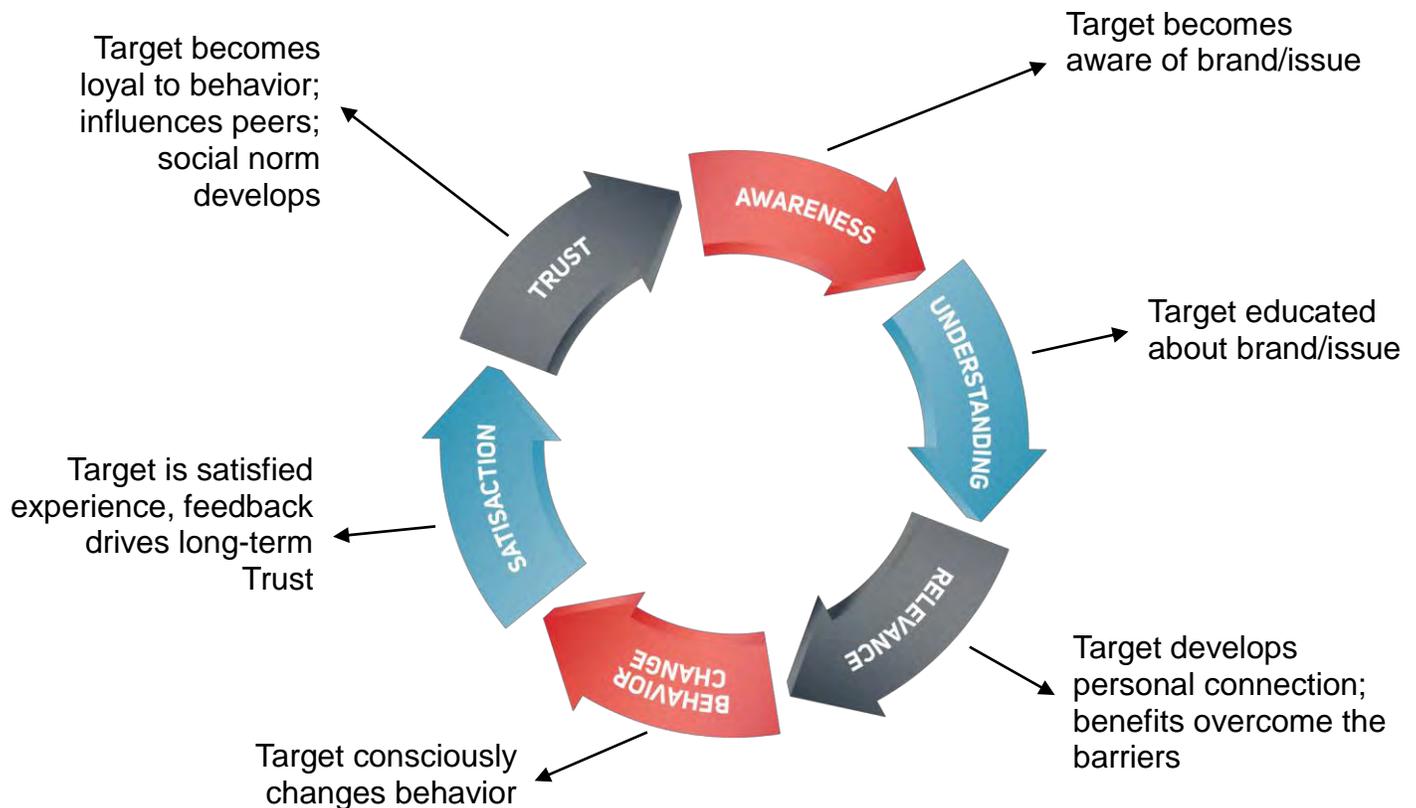


Figure 1: Behavior Change Continuum

To accomplish this goal, the team designed a pilot that included three phases:

- A pre-survey
- An outreach pilot
- A post-survey

The pre-survey served to locate each respondent on the Behavior Change Continuum and sort respondents into the four (4) outreach pilot strategy test groups:

- Advertising (TV, desktop and mobile)
- Text club

- Direct mail tools
- Door-to-door

After the outreach pilot, participants received a post-survey, enabling the team to determine whether participants had shifted along the Behavior Change Continuum. To delve deeper into survey findings, the team conducted 12 in-depth interviews with pilot participants to learn more about their recycling habits and observe their recycling behavior.

Behavior Findings

Out of 150 pilot participants, 34 shifted their behavior over the course of the study. The greatest number of shifts occurred among Behavior Change Participants: three (3) shifted to the Satisfaction stage of the continuum, and 23 shifted to the Trust stage.

At the beginning of the study, Behavior Change Participants who shifted their behavior reported that they threw recyclables in the garbage. By the end of the study, these participants reported that they did not throw any recyclables in the garbage. Behavior Change Participants who shifted their behavior share key characteristics:

- They are more likely to report that they know which items are recyclable “very well”
- They are more likely to report they recycle “always” than participants who did not change their behavior

In both the pre-survey and post-survey, paper was the recyclable item most often thrown in the garbage. The amount decreased from almost half of participants reporting they threw paper in the garbage in the pre-survey, to 38% in the post-survey.

Cognitive Dissonance

The pilot uncovered an instance of cognitive dissonance in participants: despite reporting a high level of knowledge about recycling and ascribing great importance to recycling, participants reported placing recyclables in the garbage. The team conducted in-depth interviews at pilot participants’ homes to delve deeper into their recycling habits and observe their recycling behavior.

Recycling habits

Participants were asked to explain how they dispose of different recyclable items at home. Interviewers uncovered the following habits:

- Calendars are usually recycled, but sometimes kept as memories
- Laundry detergent jugs are always recycled
- Junk mail is always recycled
- Toilet paper roll disposal habits vary, ranging from consistent recycling to opting for the nearest wastebasket even if it is garbage
- Paper bags are reused and recycled
- Soda cans are typically recycled, by sometimes collected to sell
- Spoiled food deters the recycling of plastic food containers
- Wrapping paper is typically recycled, though participants are uncertain about whether glossy or glittery types of wrapping paper can be recycled

Observed Recycling Behavior

Interviewers inspected participants' waste containers to identify improperly sorted items and understand why they were improperly sorted. The team found that:

- Plastic is the most common improperly sorted item found in the recycling bin since participants do not know that not all types of plastic can be recycled
- Non-recyclable plastics are the most common item improperly sorted into the recycling bin, ranging from plastic bags to clamshells to straws

Outreach Findings

Direct mail tools and TV ads had the highest impact on behavior change, with 40% and 30% participants who recalled these outreach methods respectively shifting their behavior.

Outreach Method	Behavior Change Rate
Direct mail tools	40%
TV ads	30%
Text club	27%
Desktop ads	23%
Mobile ads	16%
Door-to-door	0%

Recycling Attitudes and Perceptions

Through surveys and in-depth interviews, the team gathered information about participants' recycling attitudes and perceptions, and found that:

- Lack of accessibility to recycling containers, lack of effort from other family members and lack of knowledge are the key challenges participants reported when it comes to always recycling properly
- The environment is a key motivator for recycling, and the most common environmental conservation motivations were preserving wildlife, preserving health and preserving a legacy for future generations
- Participants have a positive perception of their own recycling behavior and of their community's recycling behavior, reporting that they notice whether their neighbors recycle or not

Areas of Growth

Of the 103 participants in the Trust stage of the continuum in the pre-survey, 47 answered the post-survey and provided additional input on their recycling knowledge and habits. The team found that:

- Participants at this stage of the continuum have an interest in deepening their knowledge about recycling, mentioning deeper knowledge about recyclable materials, the recycling process and compost as their areas of interest

- These participants attribute their stellar recycling behavior to their consumption of recycling information, with 8 participants specifically mentioning information they received from WM as a valuable resource
- Compost is not as widely adopted as recycling and cited additional information as the main resource they need to start composting

Conclusion and Recommendations

Since the bulk of participants in the Latino Outreach Pilot started out in the Behavior Change stage of the Behavior Change Continuum, the pilot results yield the most insights on how to help customers move beyond this stage of the continuum and into the Satisfaction and Trust stages.

The team identified direct mail and TV advertising as the most effective strategies to shift participants from the Behavior Change stage of the continuum. Including these tactics in an integrated marketing campaign can help achieve a high recall rate and influence behavior. The team also identified the following opportunities to create new messaging and tools to improve recycling behavior:

- Leveraging the environment as a unifying message to motivate recycling
- Developing messaging that emphasized recycling as a community effort
- Providing detailed information about priority recyclables and incorporate messaging around types of plastic that cannot be recycled
- Clarifying how to dispose of items outside of priority materials
- Creating new outreach tools such as a calendar since participants indicated they tend to keep calendars and attribute a high value to this item

The 12 additional interviews conducted to better understand the cognitive dissonance that leads participants who report finding recycling very important and knowing very well which items to recycle to place recyclables in the garbage revealed very few misplaced recyclables in participants' homes. The team identified the following possibilities to explain this outcome:

1. Participants may have interpreted the word "garbage" as an umbrella term that covers all types of waste.
2. Participants mentioned challenges when recycling outside of the home that may have been reflected in their responses.
3. Participants may have been thinking of recycling behavior in the entire household rather than their own individual behavior.
4. Participants may be more likely to follow proper sorting practices in the common area bins that interviewers inspected.

Project Overview

In 2016, WM hired C+C, a social marketing agency, to research the effectiveness of different recycling education outreach methods among Snohomish County Spanish-speaking WM WUTC single-family residents. The project aimed to identify where, if anywhere, in the Behavior Change Continuum different outreach methods have an impact.

To accomplish this goal, C+C identified the target audience and designed a study that incorporated a pre-survey to measure where each participant fell in the Behavior Change Continuum at the beginning of the project, a pilot of four outreach methods and a post-survey to measure where each participant fell in the Behavior Change Continuum after outreach ended. The team's findings will help identify the best outreach methods to move residents along the Behavior Change Continuum and encourage recycling at home.

The Behavior Change Continuum

The team approached the study from a behavior change perspective. The Behavior Change Continuum served as the theoretical lens for the study.

The team designed a pre-survey to learn about the target audience's attitudes and behaviors and based on these responses the team was able to locate where each respondent fell in the Behavior Change Continuum. At the end of the project, the team sent a post-survey with the same questions to measure where respondents fell in the Behavior Change Continuum and measure any shifts in behavior.

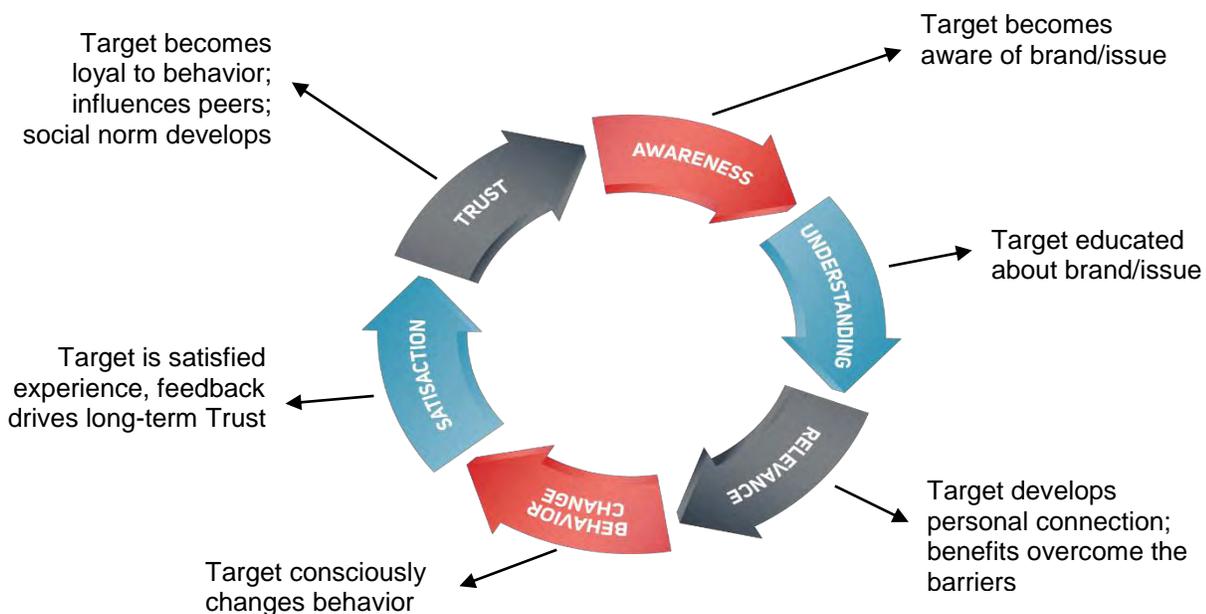


Figure 1: Behavior Change Continuum

Methodology

Identifying the audience

In order to identify Spanish-speaking households in the target audience, WM provided a list of all WUTC residential customers in Snohomish County. The team then worked with Ethnic Technologies' E-Tech Service, which analyzes names and addresses to determine the probability of language preference of each household on a mailing list.

The list of WM WUTC residential customers in Snohomish County contained 97,628 addresses. E-Tech services identified 2,307 addresses with the probability of the households' preferred language being Spanish.

Project design

The project consisted of three phases:

1. A pre-survey
2. An outreach pilot
3. A post-survey

Pre-survey

The pre-survey served two purposes:

1. Locate each respondent in the recycling Behavior Change Continuum
2. Sort respondents into the four (4) outreach pilot strategy test groups

The team created eight (8) questions to determine where each participant fell in the recycling Behavior Change Continuum (Figure 2; Appendix A, Pre-survey Questions):

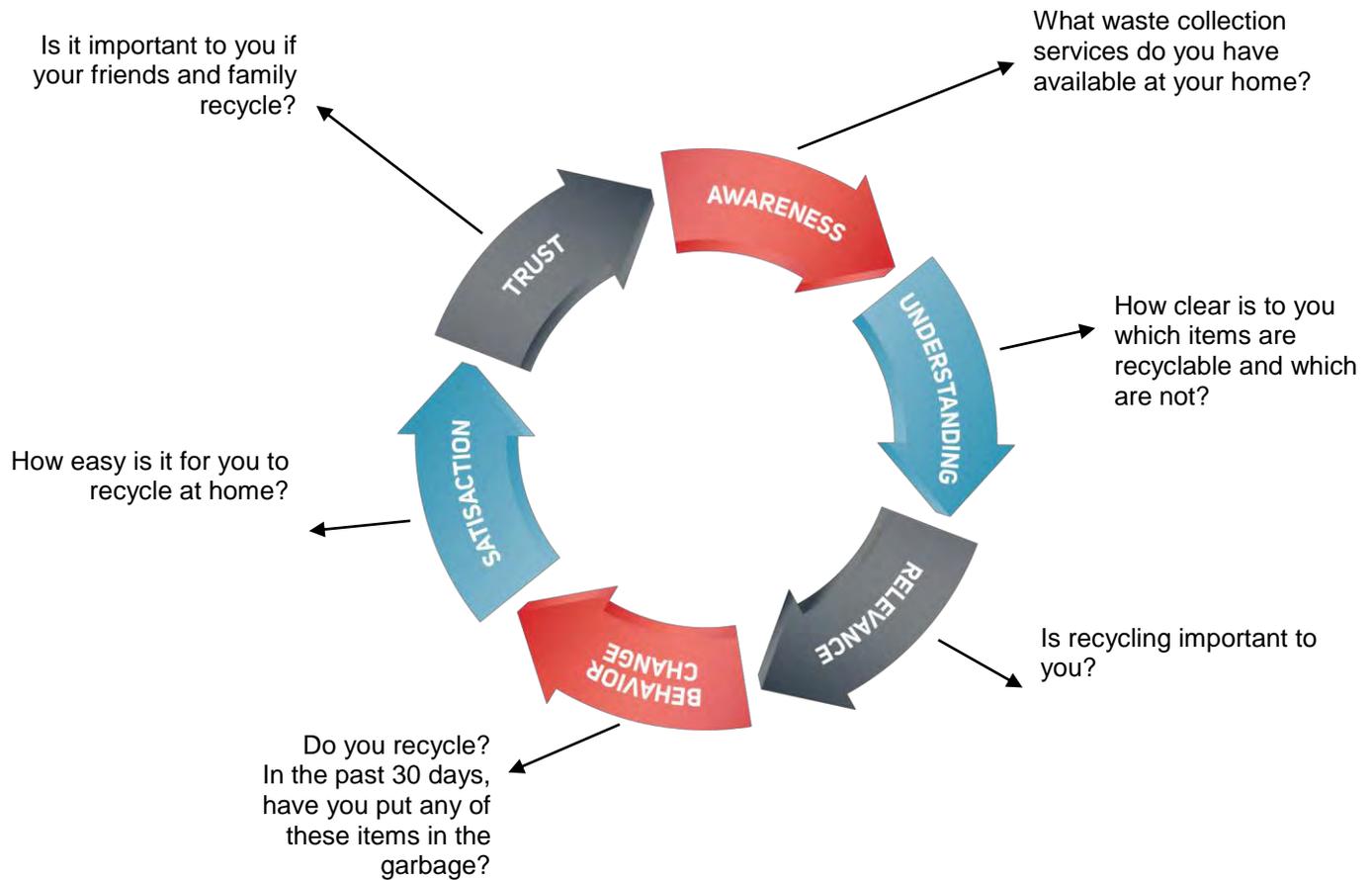


Figure 2: Survey questions for each stage in the recycling Behavior Change Continuum

The pre-survey was sent via a bi-fold postcard (Appendix B, Qualifier Mailer). Recipients were offered a \$10 gift card incentive to answer all the survey questions, tear off the survey portion of the postcard and deposit the pre-paid postage postcard in their mailbox.

Survey respondents were located in the Behavior Change Continuum based on the following responses:

Awareness: Respondent selected any answer except “I don’t know” when asked what waste collection services are available at home.

Understanding: Respondent selected one of the following options when asked how well they know which items are recyclable and which are not:

- I know more or less
- I know very well
- I know perfectly

Relevance: Respondent selected one of the following options when asked if recycling is important to them:

- Yes, a little important

- Yes, very important

Behavior Change: Respondent selected one of the following options when asked if they recycle:

- Sometimes
- Almost always
- Always

Satisfaction: Respondent met the following two criteria:

- When asked if they have placed metal or aluminum, paper, glass bottles, plastic bottles or cardboard in the garbage bin in the last 30 days, respondent selected none of these options
- Respondent selected “Easy” or “Very easy” when asked how easy recycling at home is for them

Trust: Respondent selected “Yes, very important” when asked if it is important to them that their friends and family recycle.

Outreach pilot strategies

Once each participant was categorized into their stage of the Behavior Change Continuum, the team sorted the participants into four test groups: advertising, text club, mail-in tools and door-to-door. All outreach methods took place within a four-week timeframe.

The supporting content for each pilot strategy was based on the look and feel of WM’s “Recicla” TV spot (Appendix C, Recicla Screenshot) and [Recycle Often. Recycle Right.](#) messaging. Content focused on *what* to recycle: recycling all empty bottles, cans and paper, and keeping plastic bags out of recycling.

The team sorted a roughly even number of participants from each stage of the Behavior Change Continuum into each outreach pilot group, with the following considerations:

- Text club participants were drawn from respondents who opted in to receive text messages and provided their phone numbers
- Only participants who selected “Spanish” as one of their primary languages were sorted into the text club
- Only participants in Everett and Bothell were sorted into the door-to-door group due to solicitor permit applications and efficient mapping of door-to-door routes

Advertising

WM placed a \$25,000 ad buy on broadcast and digital media from May 15 through June 14 (Appendix D, Media Plan). WM’s “Recicla” TV spot aired a total of 105 times on the local Seattle Univision affiliate, KUNS. During the advertising period, 56 paid spots aired on weekdays from 7 AM – 11:30 PM and 55 bonus PSAs aired from as rotators between 12 AM – 5 AM on all days of the week. Digital advertising was placed on the King5 (KING-TV) Extended Network, Google Display Network including YouTube and Pandora.

Through digital advertising, the team tested two different calls to action: prompting viewers to click on a button to learn more and prompting viewers to click on a button to request a free recycling tote bag

(Appendix E, Digital Ads). The team also tested visuals of two different recyclable materials: bottles and paper.

Ads that prompted viewers to click on the button to learn more led viewers to www.wmnorthwest/espanol. Ads that prompted viewers to click on a button to receive a free recycling tote bag led viewers to a web form requesting their contact information, including a disclaimer that the offer is only valid for WM customers (Appendix F, Tote Bag Request Form).

Text club

Pre-survey participants were asked to provide their cell phone numbers if they would like to opt-in to receive informative text messages about recycling. To send the messages to text club participants, the team used ezTexting, a mobile marketing service that allows users to upload lists of phone numbers and send text messages to all numbers in the contact list simultaneously.

The team crafted four (4) text messages which were sent once per week during the pilot. The messages focused on the following topics:

- Week 1: Recycle all bottles
- Week 2: Recycle all cans
- Week 3: Recycle all paper
- Week 4: Keep plastic bags out of recycling

The messages included four components:

1. A subject line – “Recicla con WM” (Recycle with WM)
2. Messaging covering the material of focus for the week (Appendix G, Text Copy)
3. A still image displaying the material of focus for the week
4. A link to a WM landing page with a GIF about the material of focus for the week (Appendix H, GIF Screenshots)

To comply with mobile marketing regulations, each text message included a disclaimer stating that standard messaging rates apply, and the option for participants to opt-out of receiving further texts.

Direct Mail Tools

Participants who were sorted into the direct mail tools group received a package with recycling tools in the mail. The package contained:

- A WM-branded recycling tote bag
- A bilingual recycling guideline in Spanish and English (Appendix I: Mail-in Tools)

The WM tote bag included visual representations of which materials to recycle, along with captions in English, Spanish, Russian and Vietnamese. The bag serves as a reusable container to collect recyclable materials at home and it features a bottom handle to ease emptying recyclables into the bin.

Door-to-door

To select which cities would receive door-to-door outreach, the team reviewed the qualified list of Spanish-speaking WUTC customers to sort the customers into the door-to-door outreach strategy. The team selected Everett and Bothell as the target areas for door-to-door outreach since these cities were among the top three in the number of Spanish-speaking WUTC customers, with 531 and 362 potential

participants respectively. Additionally, the cities are adjacent to each other, allowing for efficient door-to-door routes.

Door-to-door outreach staff knocked on doors dressed in a WM-branded clothing. The team distributed WM-branded recycling tote bags and bilingual recycling guidelines in Spanish and English to participants sorted to the door-to-door group. Outreach staff followed a script explaining how to use the recycling tools (Appendix J, Door-to-Door Script) and were fully versed frequently asked customer questions.

Post-survey

The post-survey was sent via a two-page mailing enclosed in an envelope (Appendix K, Evaluation Mailer). The first page of the mailing included each participant's gift card for responding to the pre-survey and instructions for sending the survey back to receive a \$30 gift card. The second page included the survey questions. Additionally, participants received a pre-paid envelope to send the completed survey back.

The team created two versions of the post-survey:

1. A questionnaire for Awareness, Understanding, Relevance, Behavior Change and Satisfaction Participants
2. A questionnaire for Trust Participants

Awareness through Satisfaction Post-survey

Participants in the Awareness through Satisfaction stages of the Behavior Change Continuum received a survey that included all of the same questions as the pre-survey (Appendix L, Awareness through Satisfaction Post-Survey). By asking the same questions, the team can identify shifts in the Behavior Change Continuum based on whether respondents answer differently than they did in the pre-survey.

The post-survey also included new questions to gather the following information:

- How participants would prefer to receive information about recycling
- In what language participants would prefer to receive information about recycling
- Whether participants recalled different outreach methods they received over the past weeks
- The usefulness of each outreach method participants recalled

Trust Post-survey

Participants who had achieved the Trust stage of the Behavior Change Continuum received a different version of the post-survey (Appendix M, Trust Post-Survey) in order to learn more about the resources and qualities that lead customers to achieve the Trust stage of the recycling Behavior Change Continuum. Questions were aimed at learning:

- How participants reached the Trust stage of the Behavior Change Continuum
- Whether these participants continue to learn about recycling through different outreach tactics
- Whether composting at home presents an area of opportunity to teach these participants a new behavior
- How participants would prefer to receive information about recycling
- In what language participants would prefer to receive information about recycling
- Whether participants recalled different outreach methods they received over the past weeks
- The usefulness of each outreach method participants recalled

Supplemental Interviews

To delve deeper into survey findings, the team conducted interviews with 12 pilot participants. Through these interviews, the team aimed to better understand:

- Customers' relationship to the environment and motivators to protect the environment
- Customers' recycling habits through both self - reporting and observed behavior in the home
- Customers' perceptions of their own recycling behavior and the community's recycling behavior

To recruit participants for these supplemental interviews, the team sent a mailer to all pilot participants in the Behavior Change and Trust stages of the Behavior Change Continuum (Appendix N, Supplemental Research Mailer) inviting them to participate in at - home interviews about their habits. In order to collect the most honest information possible about these behaviors, the team opted to design this mailer with C+C branding rather than WM branding. The team received 17 responses and scheduled 12 interviews.

Interview Design

To achieve supplemental research goals, the team designed an interview covering the following topics (Appendix O, Supplemental Research Interview Questions):

Relationship to the Environment: Participants were asked to describe a time when they spent time outdoors and to explain whether they think the environment is important. These questions helped establish a conversational rapport between interviewer and participant through the telling of a personal story and uncovered motivators to protect the environment.

At-home waste management set-up: Participants were asked to indicate which types of waste containers they placed in different rooms in their home:

- Kitchen
- Living room
- Bathroom
- Bedroom
- Garage

Understanding this set - up helped interviewers probe when it came to asking participants about their recycling habits.

Recycling habits: Interviewers described disposal scenarios for different recyclable items in different rooms to better understand participants' recycling habits. Participants' were asked about the following items:

- A calendar
- A jug of laundry detergent
- Junk mail
- A toilet paper roll
- Paper bags
- Soda cans
- A tub of spoiled cream cheese

- Wrapping paper

Observed recycling behavior: Interviewers inspected participants' garbage and recycling bins to identify misplaced items and understand the participants' journey when it came to consuming and disposing of the item.

Recycling perception: Participants were asked to describe the waste disposal process after their waste is taken from their home by their hauler to determine if there are any gaps in knowledge that explain improper waste sorting. Additionally, participants were asked to rate their own recycling behavior and the community's recycling behavior on a scale of 1 to 5 to determine whether participants saw any areas of improvement in their own or the community's behavior.

The wrap up the interview, the team incorporated an educational component and showed participants what the recycling process looks like (Appendix P, Recycling Process Visual) and offered to share tips based on the habits observed at home.

Findings

Behavior Findings

The team sent the pre-survey to 2,308 customers and received 282 responses, for a 12.0% response rate. Based on their responses, the majority of respondents were located in the Behavior Change and Trust stages of the Behavior Change Continuum (Figure 3).

Behavior Change Participants Characteristics

Behavior Change Participants display the following characteristics:

- Aware of what collection services are available at home
- Know more or less which items go in the recycling bin
- Find recycling at least a little important
- Recycle at home at least sometimes

Behavior Change Participants report placing at least one recyclable material in the garbage in the past 30 days – metal or aluminum, glass bottles, cardboard, plastic bottles or paper. This behavior keeps these participants from shifting to the next stage of the Behavior Change Continuum.

Trust Participants Characteristics

Participants in the Trust stage of the continuum met all of the criteria for Behavior Change. However, they also:

- Indicated that they have not placed any of the abovementioned recyclable materials in the garbage in the past 30 days
- Find recycling easy
- Find it very important for their friends and family to recycle.

Behavior Change Continuum Stages of Latino Outreach Pilot Participants

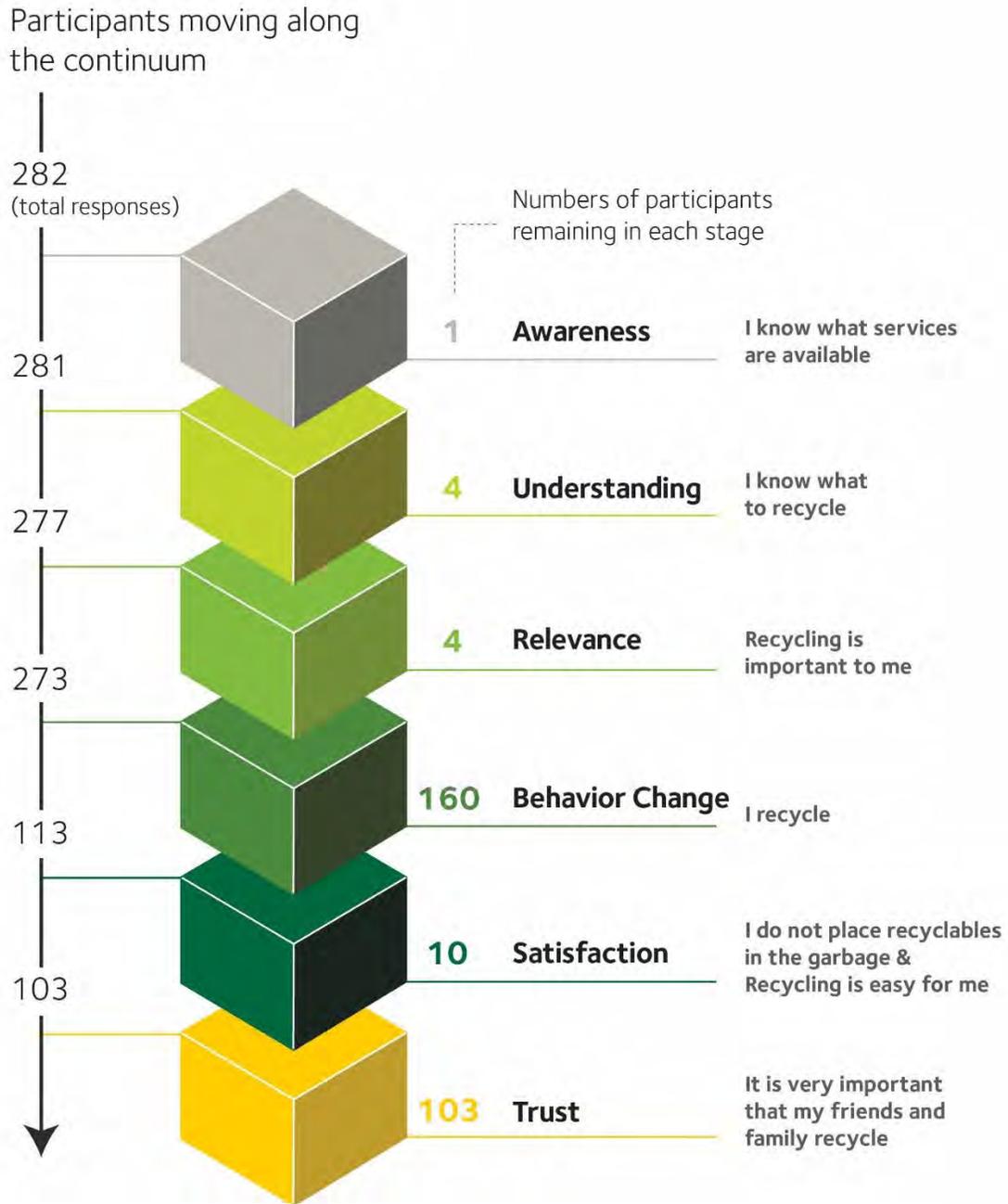


Figure 3: Pre-survey results

The post-survey received 150 responses. Out of these responses, 104 came from participants in the Awareness to the Satisfaction stages of the Behavior Change Continuum. Comparing responses from these 104 participants from the pre-survey to the post-survey revealed 34 participants (32.7%) shifted their recycling behavior from the pre-survey to the post-survey (Figure 4).

The majority of these shifts occurred from the Behavior Change stage: three (3) respondents shifted from Behavior Change to Satisfaction, and 23 from Behavior Change to Trust, for 26 total shifts in behavior from this stage. All participants who were sorted into the Awareness, Understanding and Relevance stages of the continuum shifted to the Behavior Change and Trust stages of the continuum. Two (2) participants shifted from Satisfaction to Trust.

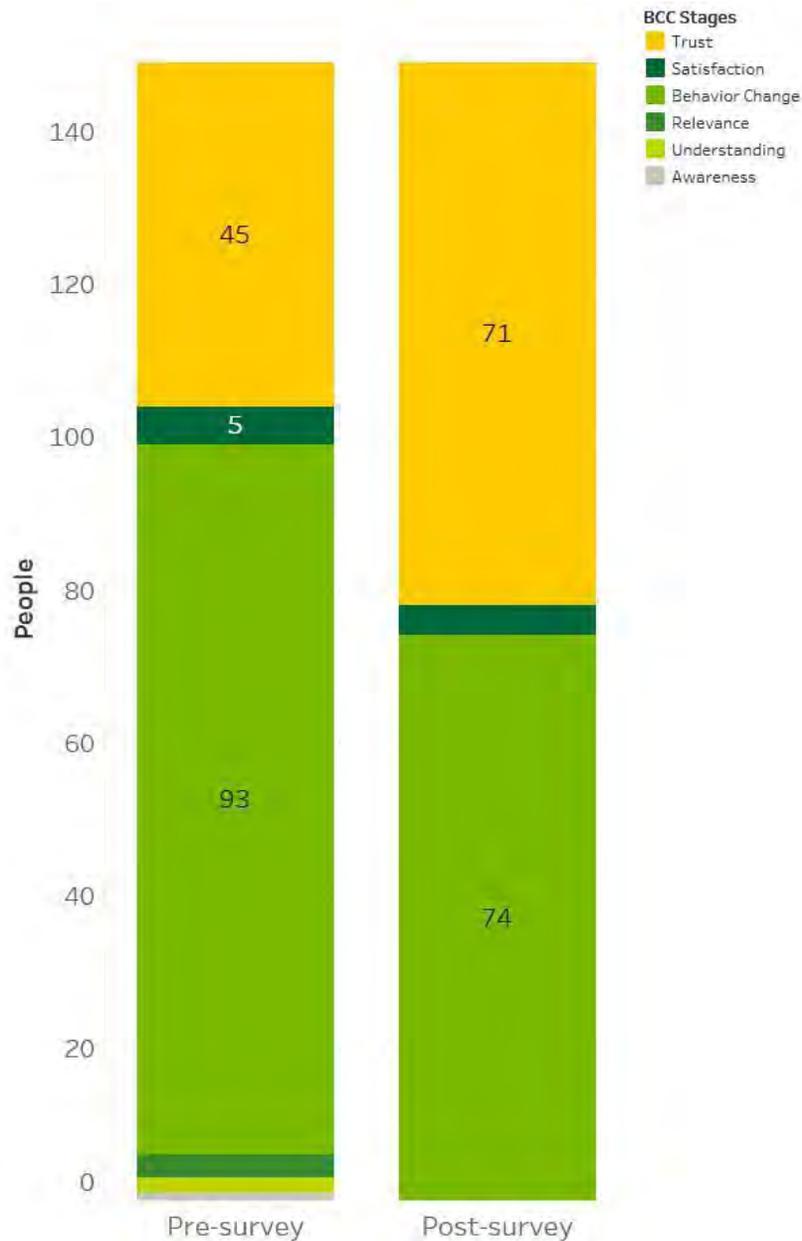


Figure 4: Behavior Change Shifts

Recyclables in the Garbage Decreased

From the pre-survey to the post-survey, participants reported changing their behavior when it comes to placing recyclables in the garbage bin (Figure 5).

The reported amount of each material thrown in the garbage decreased when comparing the pre-survey to the post-survey responses. In the pre-survey, around one-third of participants reported throwing cardboard, glass bottles, metal and plastic bottles in the garbage. In the post-survey, the number of participants reported throwing recyclables decreased to around one-fourth of participants.

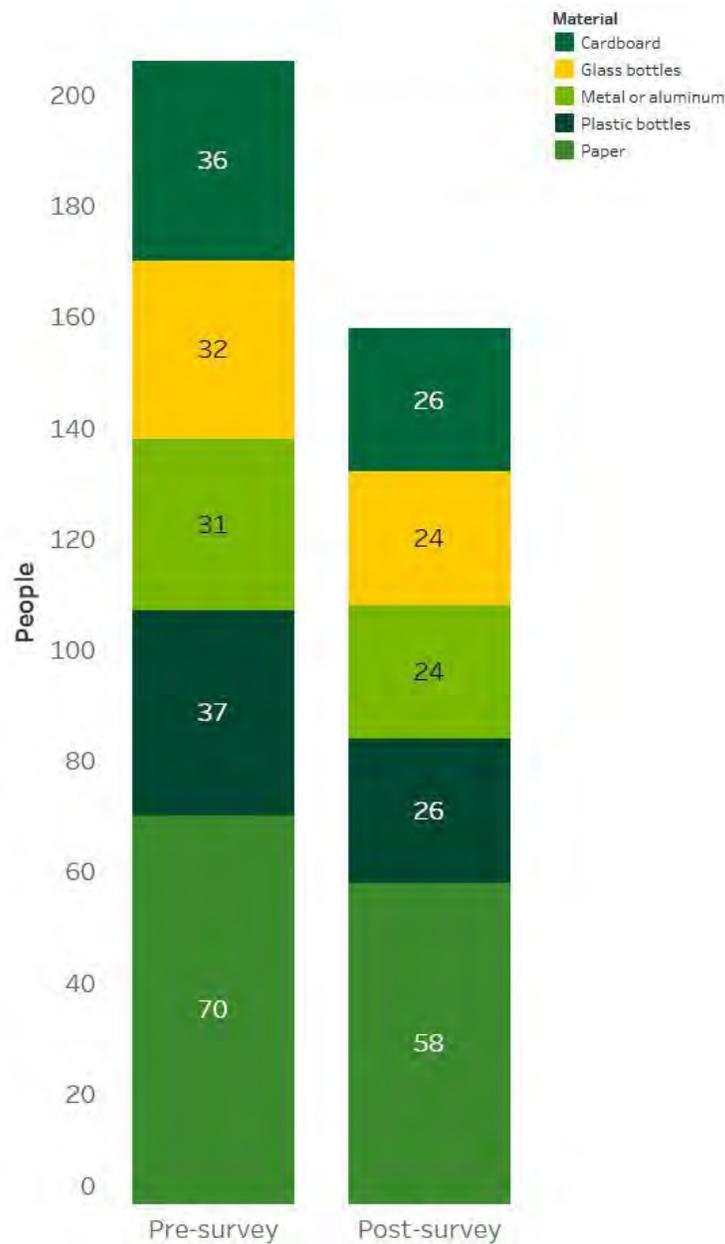


Figure 5: Recyclables in the garbage bin

Most Popular Recyclable Item in the Garbage Bin: Paper

In both the pre-survey and post-survey, paper was the recyclable most often thrown in the garbage. The amount decreased from almost half of participants reporting they threw paper in the garbage in the pre-survey, to 38% in the post-survey.

Positive Shift in Behavior

Placing recyclables in the garbage emerged as the key behavior that kept recyclers from shifting to further stages of the Behavior Change Continuum. 26 Behavior Change Participants (27.9%) changed their behavior, going from throwing at least one type of recyclable in the garbage in the pre-survey to keeping all recyclables out of the garbage in the post-survey.

Characteristics of Behavior Change Participants Who Shifted Behavior

Since the bulk of participants in the Latino Outreach Pilot started out in the Behavior Change stage of the Behavior Change Continuum, the pilot results yield the most insights on these participants' characteristics and shifts in behavior. Participants who changed their behavior were likely to share two characteristics:

Recycling Knowledge

The majority of participants who changed their behavior indicated that they know which materials to recycle "very well" in the pre-survey (Figure 6). 69% of participants who shifted their behavior indicated they know which materials to recycle "very well," while only 46% of participants who did not shift their behavior selected this option. Participants who did not shift their behavior were much more likely to report that they know what to recycle "more or less" (34%) than participants who shifted their behavior (7%).

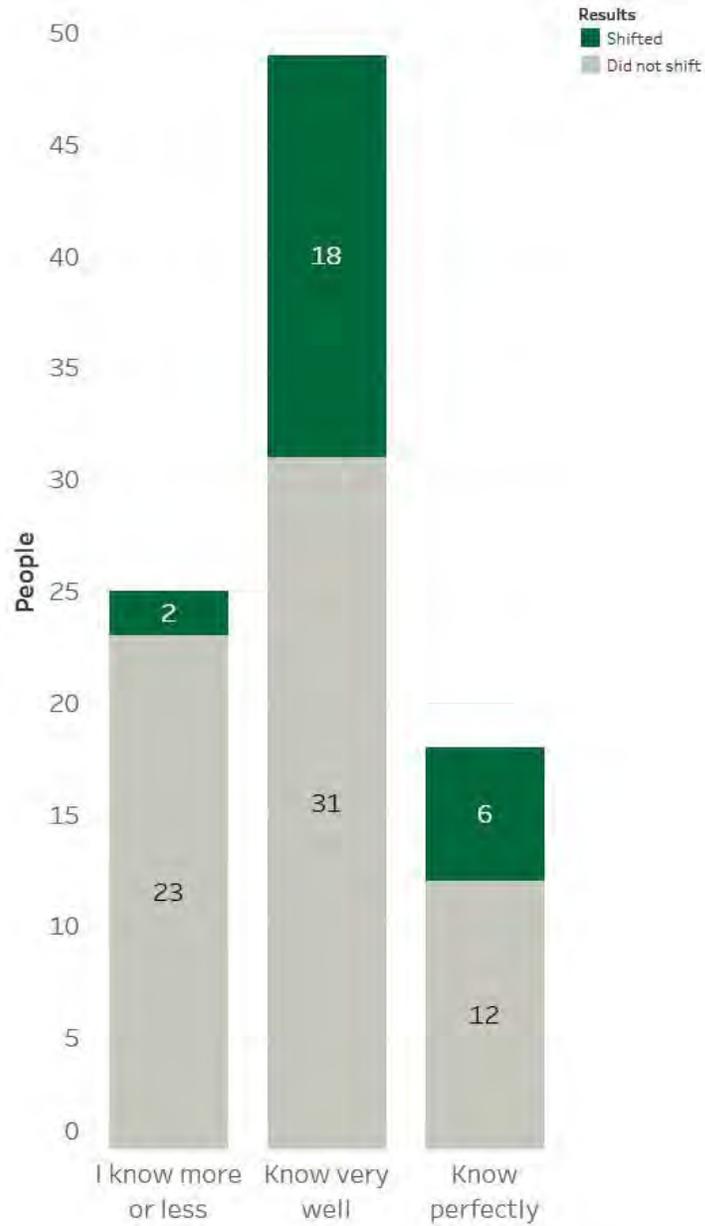


Figure 6: Recycling knowledge

Recycling Frequency

Participants who changed their behavior were more likely to report that they recycle “always” in the pre-survey (Figure 7). 88.4% of participants who shifted their behavior reported they “always” recycle, compared to 74.6% of participants who did not shift their behavior.

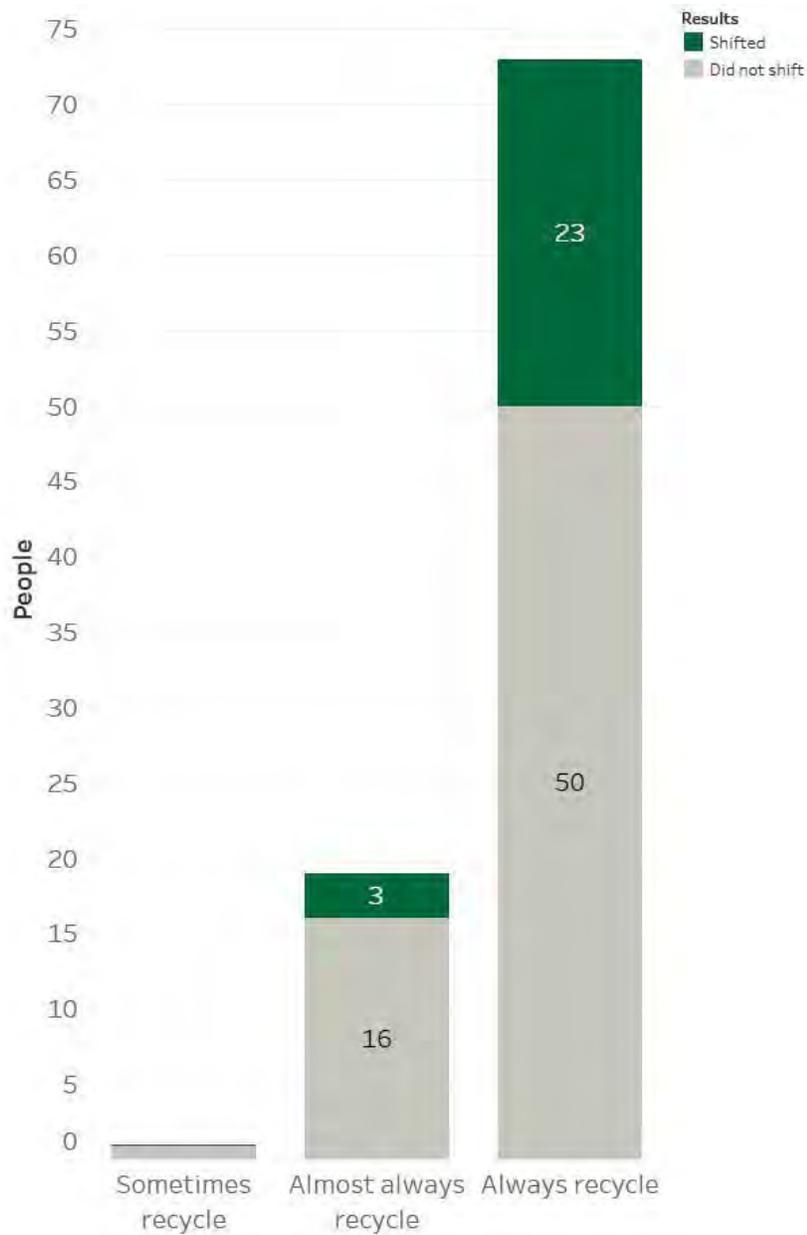


Figure 7: Recycling behavior among participants who changed their behavior

Cognitive Dissonance

The pilot uncovered an instance of cognitive dissonance in participants: despite reporting a high level of knowledge about recycling and ascribing great importance to recycling, participants reported placing recyclables in the garbage. To delve deeper into the cognitive dissonance experienced by participants, the team conducted interviews with 12 pilot participants to better understand their recycling behaviors. These interviews uncovered information about participants' waste container set up at home, their recycling habits and their observed recycling behavior.

Waste Container Set Up

Participants were asked to indicate which types of waste containers they had set up in different rooms in the home.

Overall amount of waste bins set up in each room by type

	Kitchen	Living Room	Bedroom	Bathroom	Garage
Garbage	11	-	9	11	9
Recycling	8	-	1	1	7
Compost	5	-	-	-	2

Recycling containers inside and outside of the home

The kitchen and the garage were the most popular locations for recycling containers. Four participants do not have a container to collect recycling inside the home and instead bring their recycling directly to their outdoor bin. Participants think of their curbside bin as being located in the garage, and they bring certain items, such as laundry detergent, directly to this outdoor bin even if an indoor bin is available due to the size of the item.

Recycling Habits

Participants described the following disposal habits for the recyclable items they were asked about:

Calendars are usually recycled, but sometimes kept as memories

The majority of participants keep paper calendars (11/12), and three of these participants indicated they receive these calendars for free at local bakeries. Most of these participants (8/11) report recycling their calendars, with three participants keeping their calendars for their sentimental value and to reuse in crafting projects. One participant described their calendar as a form of a diary: "Sometimes when I'm feeling nostalgic I go through my calendars and remember who I saw, whose birthday party I went to or what was celebrated on what date. I use my calendars as diaries."

Laundry detergent jugs are always recycled

All participants recycle their plastic jugs of detergent, and the majority (10/12) report rinsing the bottle as a step in their disposal process for this item. A third of participants bring the item directly to their curbside recycling bin since the jug is too big for their indoor containers. The setup of their curbside recycling makes this disposal easy since the bin is steps away from their door.

Junk mail is always recycled

All participants recycle their junk mail; five participants mentioned bringing their mail inside for sorting, while the rest separate the junk mail outside by their mailbox and place it directly in their curbside recycling bin. Participants who bring their junk mail inside report sorting it in the kitchen and then placing unwanted mail in their kitchen recycling container. Two participants reported ripping or shredding junk mail before disposing of it due to fear of identity theft if the correspondence contains personal information.

Toilet paper roll disposal habits vary

Seven participants personally recycle toilet paper rolls consistently; three of these participants mentioned that they are uncertain about their family members' behavior when it comes to this item. None of these participants have a recycling container in the bathroom; they bring toilet paper rolls to their kitchen container or to their curbside bin. One participant places toilet paper rolls in the curbside compost bin since they are made of paper.

Two participants place toilet paper rolls in their bathroom wastebasket, which is then thrown in the garbage bin. One participant collects all toilet paper and toilet paper rolls in a plastic bag in the bathroom since flushing anything down their toilet causes plumbing issues, and then the plastic bag is thrown in the garbage.

Two participants mentioned reusing a portion of their toilet paper roll. One gives toilet paper rolls to their daughter for use in crafting projects, and one saves toilet paper rolls for their son, who plays with them as binoculars.

Paper bags are reused and recycled

Most participants (7/9) who report using paper bags reuse them before disposing of them. Bags are reused to collect recycling and food waste, or as wrapping paper or to carry items around. Only two participants recycle paper bags without reusing them first.

Three participants do not tend to use paper bags. One participant brings reusable bags to the grocery store, and two participants report receiving plastic bags only when they shop.

Soda cans tend to be recycled

Most participants recycle soda cans (11/12), with two participants stating that rinsing is part of their disposal process. These participants vary between collecting the cans in their kitchen container and bringing them to their curbside recycling bin directly. One participant collects cans to sell; they collect four to five bags of empty cans and receive \$4 - 5 for the cans.

Spoiled foods deter recycling

Seven participants reported they would recycle a container of spoiled cream cheese, and one reported reusing the container to store food. These participants indicated they would dispose of the cream cheese before rinsing and recycling the container, either by scooping it into the food disposal or the compost container.

The remaining four participants dispose of the container in the garbage bin without opening it. These participants explain their behavior saying that they do not want to open the container because the spoiled food may smell bad or be otherwise disturbing to handle.

Proper wrapping paper disposal can be confusing

When it comes to wrapping paper, participants all referred to situations when multiple presents were unwrapped at once. All participants collect wrapping paper in a plastic or paper bag after all presents have been unwrapped. Nine participants then recycle the wrapping paper, and two participants put it in the garbage since they are uncertain of whether the material is recyclable or not since it can be glossy or covered in glitter.

Observed Recycling Behavior

To understand what leads participants to throw recyclables in the garbage, the team selected disposed items from waste containers and asked participants to share these items' stories, from purchase to disposal (Appendix Q, Waste Container Pictures). The focus was on two categories: non-recyclables in the recycling bin and recyclables in the garbage bin. Out of twelve participants, three participants placed non-recyclable items in the recycling bin, and two participants placed recyclables in the garbage bin.

Plastic the most common material improperly sorted into the recycling bin

Interviewers observed various types of non-recyclable plastic placed in the recycling:

- Plastic clamshells for fruits and vegetables
- Loose plastic bags from food items, like potatoes and snack chips
- Recyclables tied up in plastic bags
- A plastic cup lid and straw

Each of these items was a regular purchase for the household, and participants thought these items were recyclable.

Interviewers also observed two bulky items with plastic parts in the recycling bin: a blender and an acrylic stand. In addition, a pizza box and a Styrofoam cup were found in the recycling bin.

Paper and recyclable plastic in the garbage

Interviewers only found two recyclables in the garbage in two separate households. The first item was cardboard packaging for a calling card. The participant had just taken out the recycling, and after coming back inside saw the cardboard. Since they had just gone outside, they did not want the inconvenience of going out again and put it in the garbage since it was the easier thing to do.

The second item was a plastic water bottle. The participant said it must be their 19-year-old son who put the water bottle there, despite their reminders that this type of item is recyclable.

Outreach Findings

The team sorted a roughly even number of participants from each stage of the Behavior Change Continuum into each outreach pilot group (Figure 8):

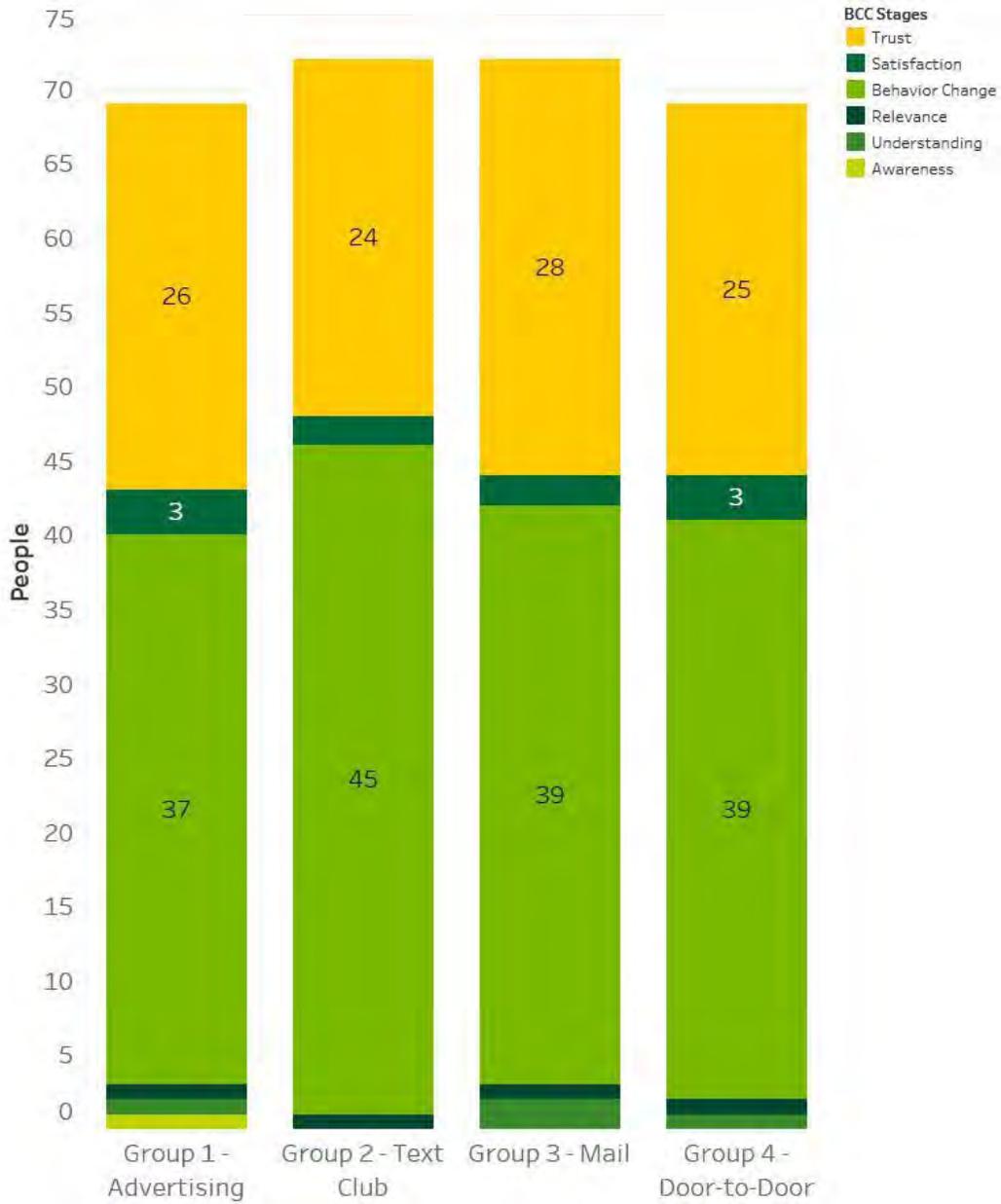


Figure 8: Test Group Distribution

Advertising

The team used three measures to compare advertising methods: impressions, click-through rate and cost-per-click.

King5 Delivered the Highest Impressions

Between May 15 and June 14, WM digital advertising had a total of 2.56 million impressions (Figure 9). The King5 extended network delivered 1.36 million impressions.

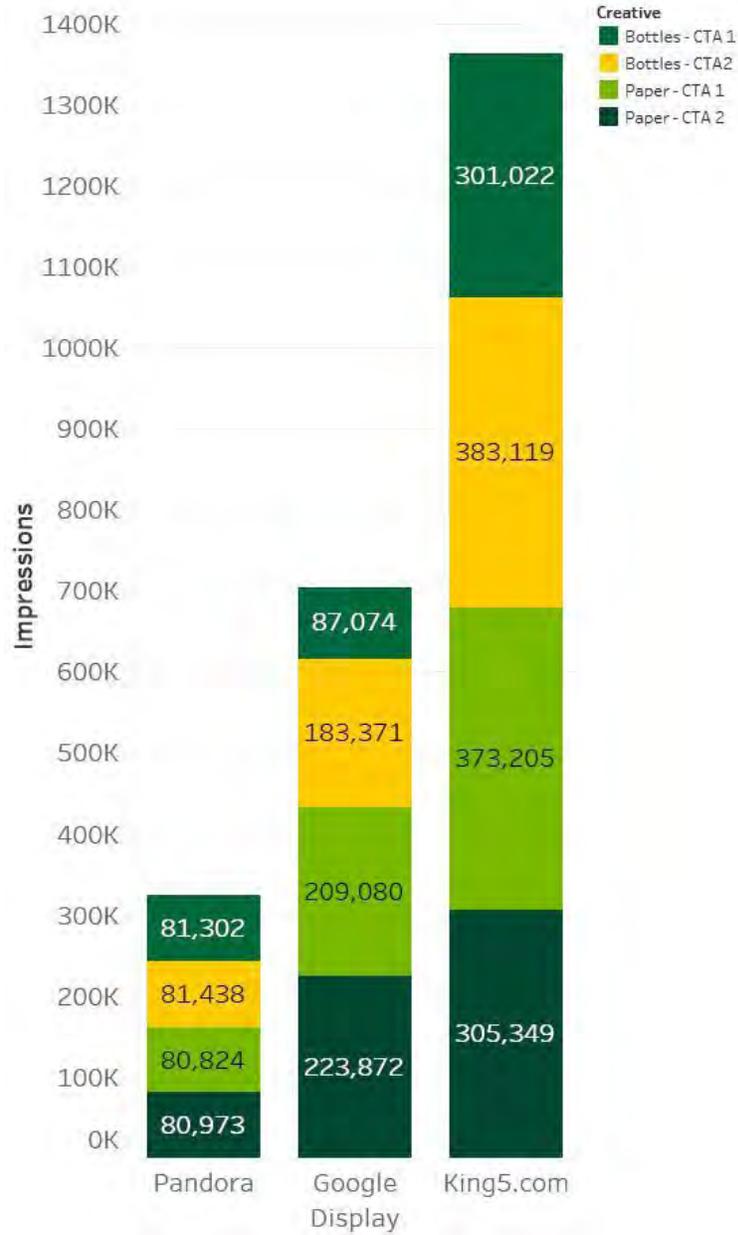


Figure 9: Impressions

Pandora Yielded the Highest Click-Through Rate

Pandora yielded the highest click-through rate, at 0.29%. (Figure 10). The industry standard click-through rate for ads is 0.1%. The click-through rate for each piece of creative remained consistent with the click-through rate for each respective site.

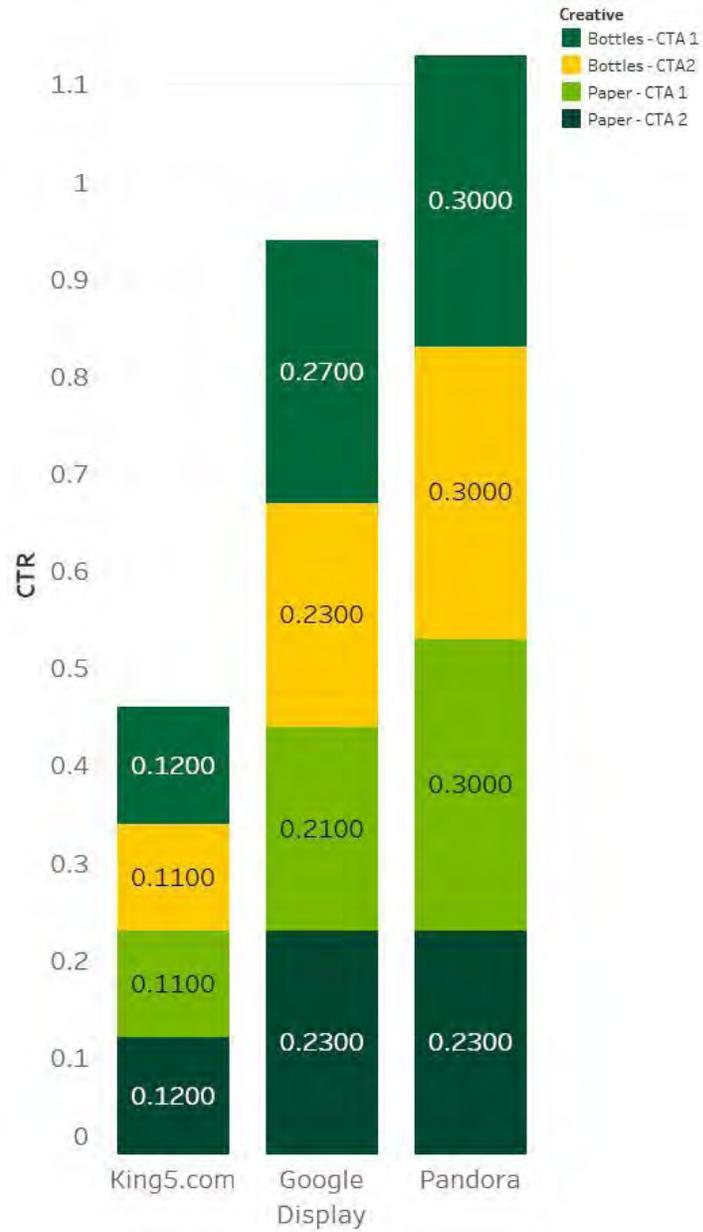


Figure 10: Click through rate

Google Delivered the Lowest Cost Per Click

Google display ads had the lowest cost per click, with each type of creative maintaining a cost per click under \$1 (Figure 11).



Figure 11: Cost per click

Tote Bag Requests Significantly Lower than Clicks

While each advertisement received thousands of clicks, the team only received 15 tote bag requests from digital advertising. Of these requests, nine (9) were eligible WM customers. One (1) eligible recipient had also responded to the pre-survey and was part of the text club group.

Text club

The Week 1 WM text message was successfully delivered to 57 out of 72 recipients of the text club (Figure 12). Over the course of the four-week text club, six (6) participants opted out. From weeks two through four, the link in that week's text message received 4-5 clicks per week, for a 7-9% click through rate.

Participants who opted out of the text club were removed from the list each week. In addition to opt outs, messages went undelivered to 9 participants for the following reasons:

- **Unconfirmed:** The mobile provider does not provide ezTexting with reports detailing how many text messages were successfully delivered and opened by members of their network.
- **Bounceback:** The recipient has blocked the ezTexting short code and cannot receive messages sent by the service, or the recipient has blocked all short codes from sending messages to their phone.

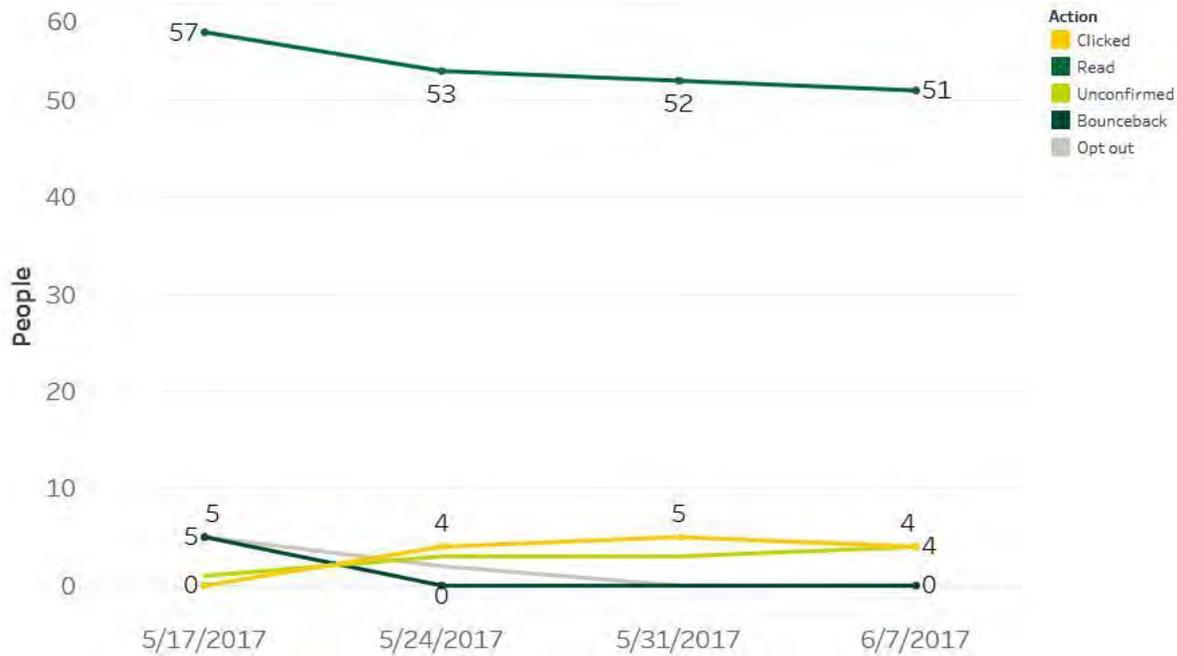


Figure 12: Text Club Results

Mail-in tools

The team sent a tote bag and a guideline in the mail to 72 participants. The team confirmed delivery by the mail carrier by checking tracking numbers.

Door-to-door

Of the 71 households in the door-to-door group, the team was able to knock on 34 doors. Of these door knocks, the team was able to contact 28 households, for an 82% contact rate. Twenty-four (24) of these households accepted the WM tote bags and guidelines, while four (4) households declined these resources.

Residents who accepted the tote bag were appreciative of the bag, with comments such as “Giving away tote bags just like that? This is awesome” and “This is so great, we’ve been using a Lululemon tote bag for recycling.” One recipient requested a second bag to give to her daughter.

Residents also had questions about how to recycle specific materials outside of the priority materials included in the guideline. For example, one resident asked how to recycle electronics such as computers, and another asked about recycling broken materials (Appendix R, Door-to-Door Pictures).

The majority of homes that could not be accessed had a “No Soliciting” sign (Figure 13). Homes within a community with a homeowners’ association (HOA) all had “No Soliciting” signs. The team also found 13 homes on private roads, which are for the private property and for the limited use of the owner or group of owners who maintain the road.

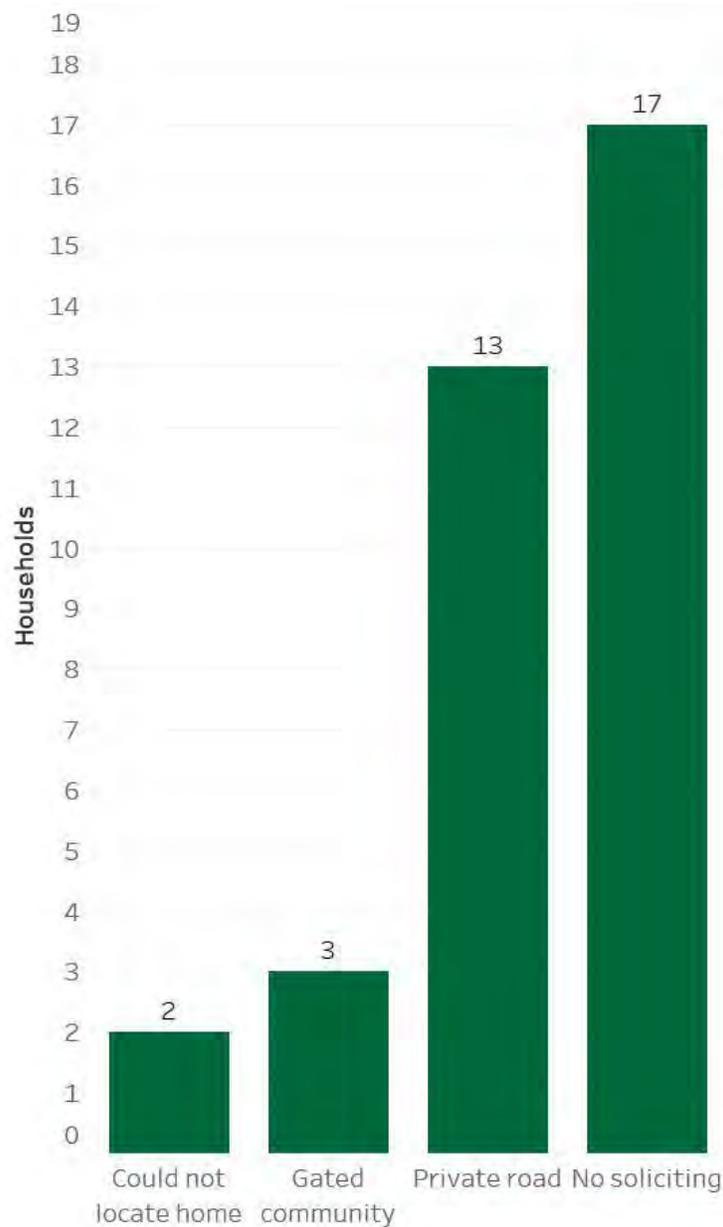


Figure 13: Reasons for No Access

Outreach Recall

Overall, of the 150 post-survey respondents, 100 participants recalled an outreach method (66%). 22 participants both recalled an outreach method and shifted their behavior (14%).

To control for discrepancies between the number of responses received from each test group, inaccessible households in the door-to-door group and the accessibility of advertising to all participants regardless of the test group, results are presented as percentages.

Highest Outreach Recall: Text Club

Across post-survey respondents, the text club had the highest rate of recall (Figure 14). Overall, 67% of respondents from the text club group recalled receiving text messages about recycling in the previous six weeks. This was closely followed by respondents in the mail-in tools group, with 64% reporting that they recall receiving a tote bag in the mail in the past six weeks. TV had the highest recall among advertising methods, with 48% of respondents remember ads on TV.

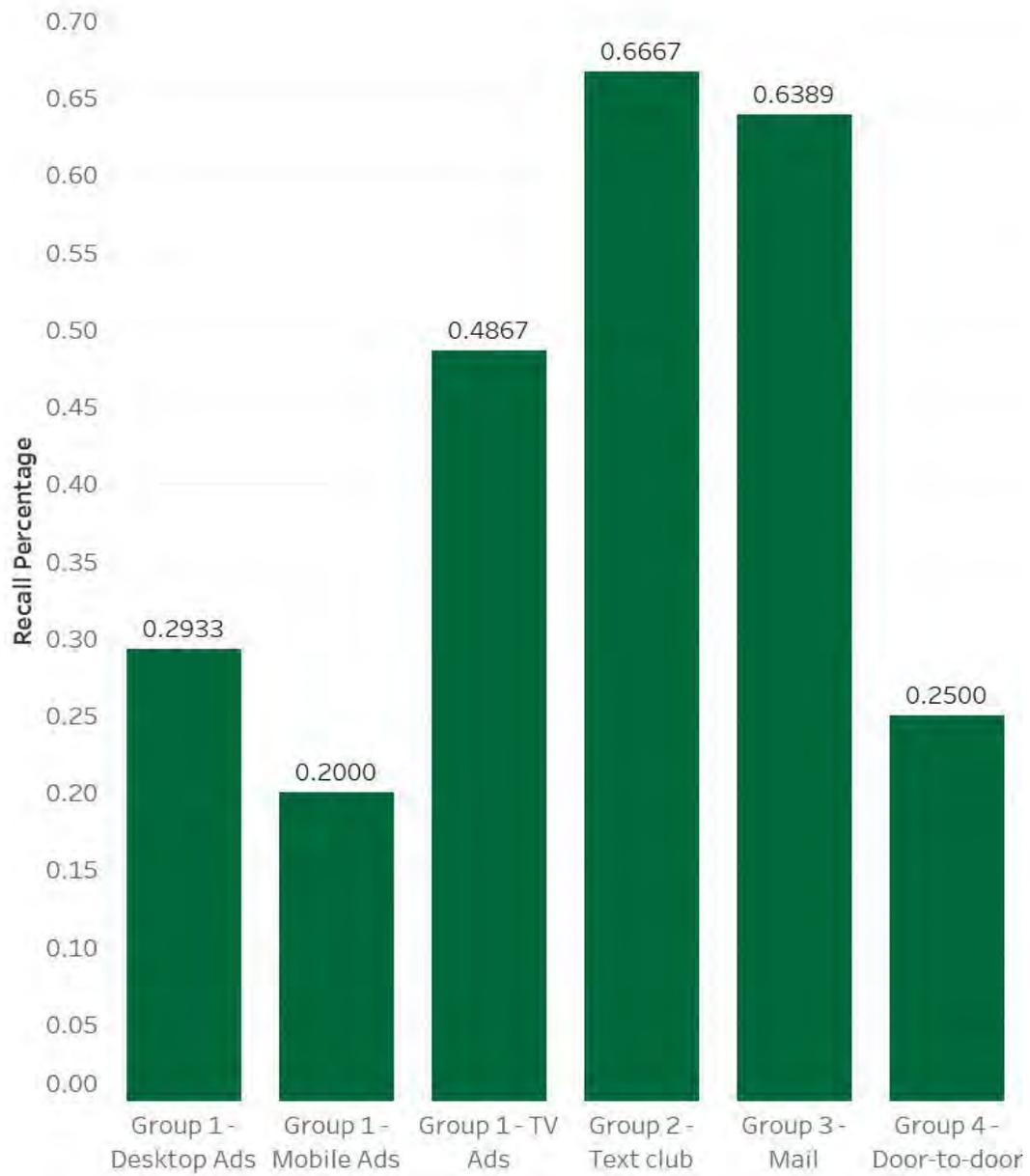


Figure 14: Outreach recall by method

Greatest Effect on Behavior Change: Mail-In Tools

40% of participants who recall receiving a tote bag in the mail shifted their behavior (Figure 15). Five (5) participants shifted from Behavior Change to Trust and one (1) participant shifted from Understanding to Trust.

TV ads had the second-highest effect on behavior change, with 30% of participants who recalled TV ads shifting their behavior. One (1) participant shifted their behavior from Understanding to Behavior Change, one (1) from Relevance to Trust, 12 from Behavior Change to Trust, and one (1) from Satisfaction to Trust.

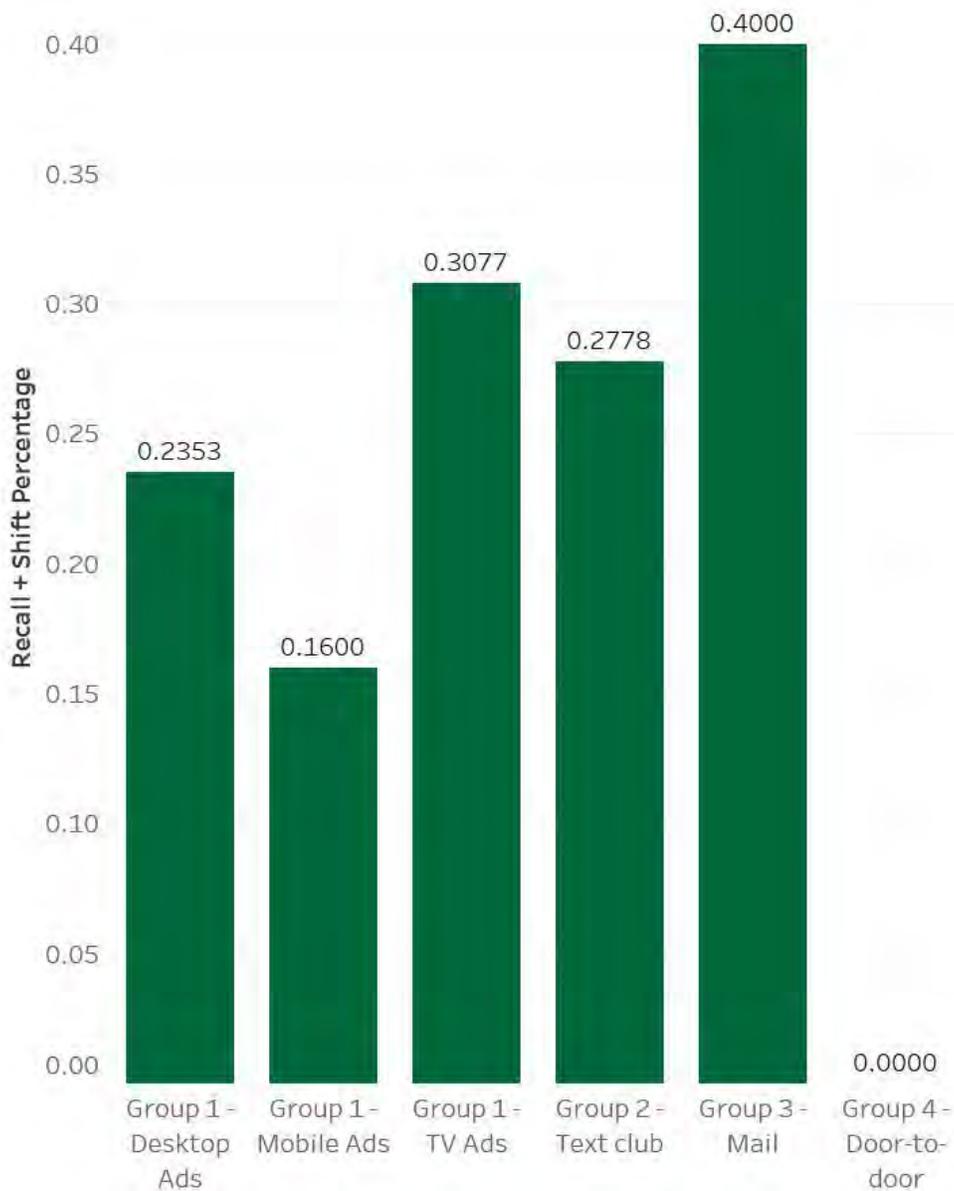


Figure 15: Outreach recall and behavior change

Outreach Rated “Very Useful” by Over a Third of Participants

The majority of participants who recall outreach found the outreach very useful or more or less useful (Figure 16). All participants who recall a WM visit reported that they found the visit very useful. Among participants who recall advertising, text messages or receiving a tote bag in the mail, at least 70% found each method very useful.

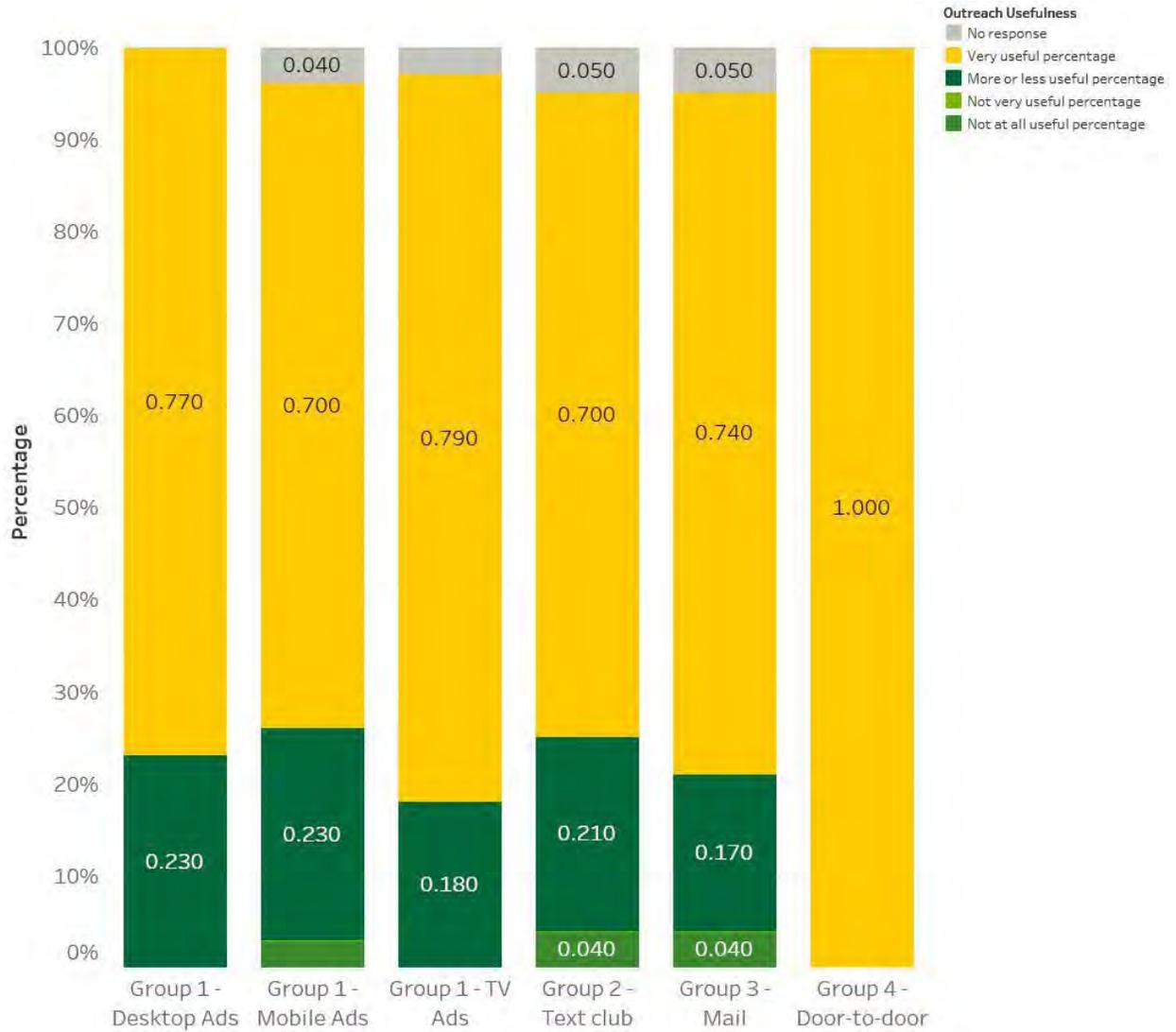


Figure 16: Outreach usefulness

Preferred Outreach Methods and Languages

The Audience Prefers to Receive Information Via Mail and TV

Mail and TV were ranked as the top two outreach methods preferred by all 150 post-survey respondents, followed by text messages (Figure 17). Participants' preference for receiving information in the mail is also supported by their willingness to respond to two mail-in surveys and a high recall rate of receiving a tote bag in the mail. Similarly, TV had the highest recall rate among advertising methods, implying the audiences' preference for TV advertising.

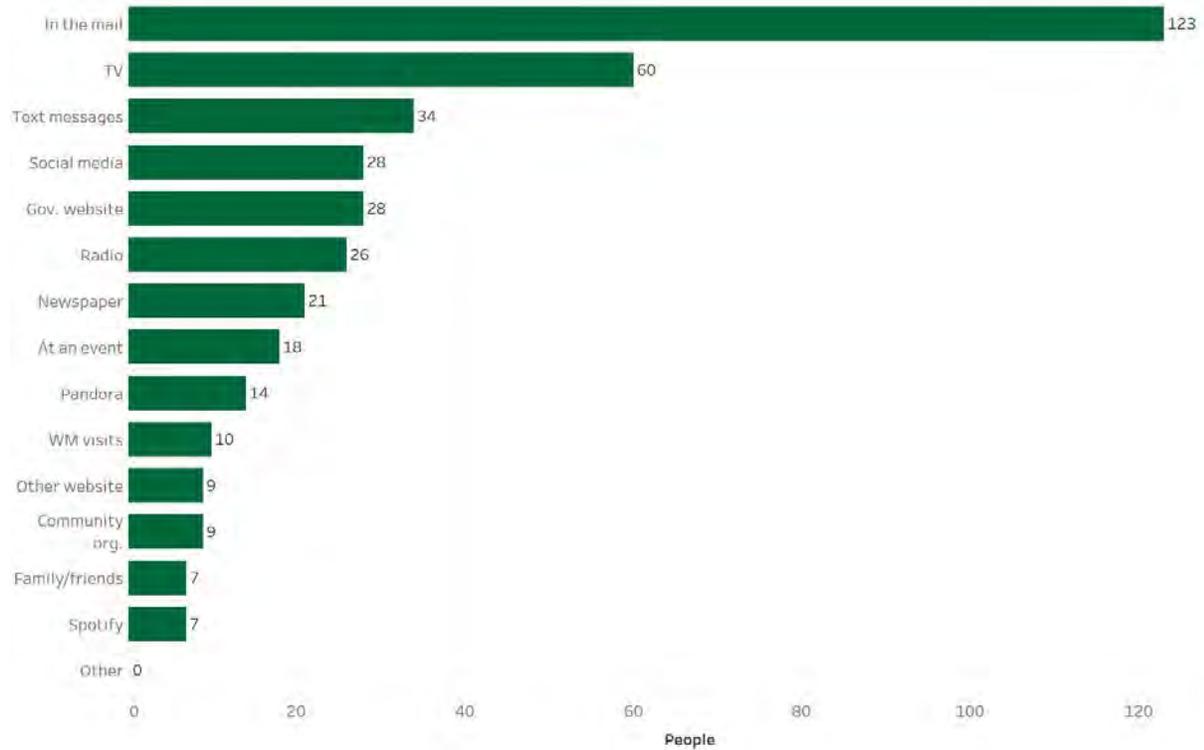


Figure 17: Preferred outreach methods

The Audience Prefers to Receive Information in Spanish

The majority of participants indicated that they prefer receiving information in Spanish (Figure 18). Out of 150 post-survey respondents, 114 (76%) participants marked Spanish. Of these households, 77 (51.3%) marked Spanish only, while 37 (24.6%) marked both English and Spanish. 33 households marked English only (22.0%). These language preferences indicate that half of the respondents live in Spanish-dominant homes, and half live in bilingual or English-dominant households.

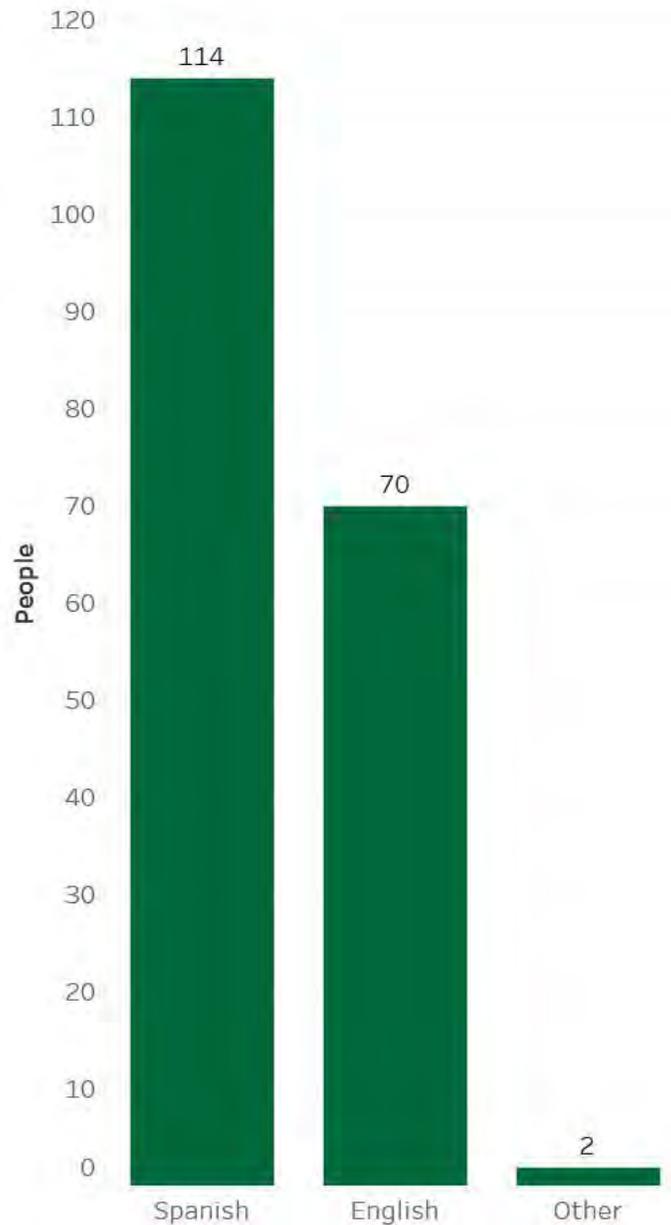


Figure 18: Preferred language for receiving information

Recycling Attitudes and Perceptions

Through the post-survey and supplemental interviews, the team gathered information about participants' recycling attitudes and perceptions, including what challenges participants perceive around recycling, what values motivate them to recycle and how well participants rate their own and their community's recycling behavior.

Recycling Challenges

To better understand recycling barriers, interviewers directly asked participants describe any difficulties they face when it comes to recycling. Participants mentioned three main challenges:

Lack of accessibility to recycling containers

Two participants access to recycling containers as a barrier that kept them from recycling. One participant mentioned proximity to waste containers factored into their decision at home: if a garbage bin was closer than a recycling container, they sometimes put recyclables in the garbage. The other participant shared incidents when they found no recycling bins at work and had to put recyclables in the garbage.

Family members not sorting items properly

Three female participants mentioned children, especially teenage children, and husbands as family members who do not pay enough attention to recycling at home. These participants mentioned getting tired of "nagging" children to sort recyclables properly, fishing out large pieces of food their children put in the garbage to transfer to the compost bin and wearing rubber gloves to sort through the garbage container in her daughters' room.

Lack of knowledge

Five participants mentioned lack of knowledge as a recycling challenge. The team identified three main reasons participants listed for their lack of knowledge:

Immigrant background

Two participants mentioned that when they moved from their countries of origin, Colombia and Mexico, to the U.S., it was hard to know which items to recycle. Both participants spoke about the difficulty they experienced when they first moved to the United States.

Language barrier

One participant mentioned that most recycling information and educational messaging is in English. Having no access to in-language materials makes it hard for them to learn about recycling process and rules.

Change in housing situation

Two participants shared that when they moved from multifamily buildings to single-family homes, their recycling habits changed too. As homeowners, they had to learn about recycling from scratch. One participant mentioned they did not recycle at all when they lived in a multifamily building, and one participant hauled their own waste when living in a multifamily building.

Recycling values and motivators

The Environment Is a Key Motivator

In the post-survey, after asking participants if recycling is important to them, participants were also asked about the reasons why. Across the Behavior Change Continuum, participants cited the environment as the most important motivator (Figure 19). Participants expressed their commitment to protecting the environment with answers like:

- “Because we have to take care of our planet”
- “Because it gives opportunity to help the environment and reuse materials”
- “Because it saves the environment and reduces waste in garbage collection, landfills and transfer stations”

One participant elaborated on how recycling benefits the environment by citing climate change: “Because I can contribute my grain of sand to the planet, avoid contamination and prevent the warming of the Earth.” The phrase “contribute my grain of sand” is often used by the Spanish-speaking community to describe a small action that can amount to a big impact if the behavior is adopted on a mass scale, like individual grains of sand creating a beach.

Participants who cited the importance of reuse, less waste, their children and cleanliness as recycling motivators often cited these reasons in combination with protecting the environment, with statements like:

- “Because I love that you can reuse what we don’t need to make many new things! It makes the world happier.”
- “It reduces the volume of my trash, and I can help take care of the environment by increasing the life of the landfill.”

When it comes to children as a motivator for recycling, the behavior is coupled with a desire to preserve the environment for future generations and to give children a positive example:

- “Because I want to leave a better world for my children.”
- “To keep the environment clean and give a better example to our children, so they continue doing it.”

Cleanliness referred to keeping neighborhoods and the planet free of garbage. The choice of the word “clean” in these answers reflects the importance that the community places on hygiene as a value:

- “Because it keeps the streets cleaner and it looks better”
- “Because we help keep our planet clean.”

One participant shared that they do not like to mix plastic and paper with food and trash. This answer was classified as “other” since the participant did not explain why they do not like to mix these materials.

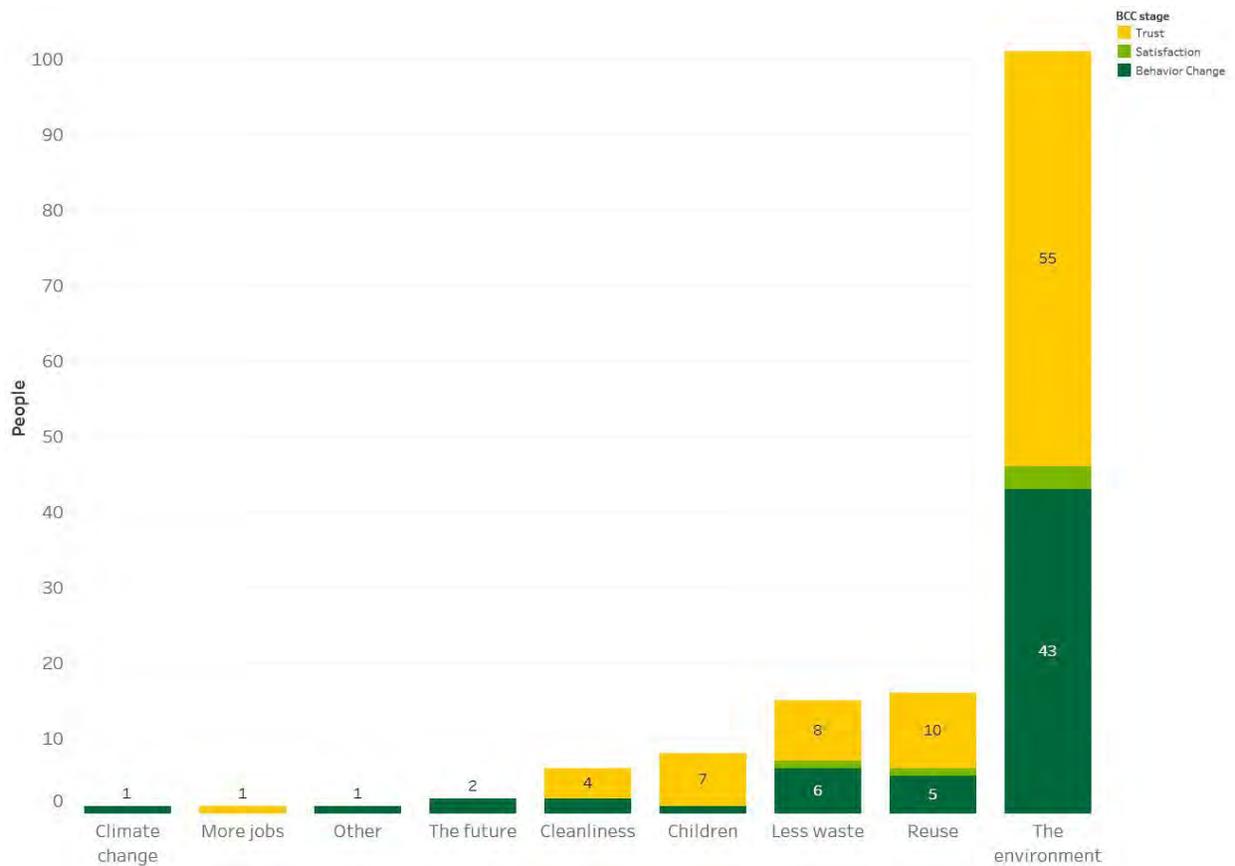


Figure 19: Recycling motivators

Participants experience the environment in different ways

The topic of participants’ relationship to the environment was further explored in the 12 supplemental interviews. All participants expressed positive feelings about the environment and spending time outdoors, citing the following reasons for spending time outdoors:

The environment provides a sense of community

For one participant, spending time outdoors is a means of spending time with their community. The participant reported participating in picnics organized through the public library, where participants have the opportunity to learn about wildlife in the area from picnic organizers who have knowledge on the topic.

The environment as a family activity

Seven participants shared stories of spending time outdoors with their children. These participants described the leisure time they spend at parks, lakes and trails using communal language, emphasizing the importance of finding activities for the whole family to enjoy. For example, one participant said “we like to bathe there” and “we love going” when speaking about visiting a park as a family.

The environment as a place of healing

Three participants highlighted the feeling of spending time in the open air when describing time spent outdoors. These participants spoke about the environment with a tone of reverence, using descriptors such as:

- “It’s always so therapeutic.”
- “Everyone is very respectful of the lake.”
- “The air we breathe over there is prettier.”

Participants’ environmental conservation motivations

Participants explained why the environment is important to them and what motivates them to take action to preserve the environment.

Preserving wildlife

Participants find the preservation of wildlife important in its own right, and because they see wildlife as an integral part of the system that keeps human beings alive and well. Participants alluded to trees’ role in the preservation of the human habitat, saying:

- “We need to take care of our plant and the trees because that is where we get our oxygen and oxygen is essential for us.”
- “A couple of summers ago there were so many wildfires and our town was so smoky but the trees helped a lot and got rid of the smoke right away.”

Preserving health

Participants correlate the cleanliness of the environment with human health, saying:

- “The cleaner the environment, the cleaner the air we breathe.”
- “The earth is part of our health – if we don’t take care of the environment we will have a long-lasting negative impact on our health.”
- “It is important that our earth is clean, so that there isn’t a lot of contamination so that we don’t get sick.”

Future generations

Participants view the environment as the legacy their children will inherit, motivating them to help preserve the environment. Recycling and teaching children to avoid littering are viewed as ways they can contribute to the preservation of the environment for future generations, with comments including:

- “If we don’t separate plastic bags and just toss them in the open fields then they take forever to dissolve. I know this because I place my own compost in my own garden; one time I accidentally placed a plastic bag among my garden and 5 years later it was still there.”
- “Our daughter learns about recycling and how to care for the environment in school and teaches us.”
- “I teach my kids how to recycle and compost. When my kids chew gum and they are done I put it in a napkin and when I get home I place it in the trash. Back in the day when I was younger I didn’t care so much about the environment. I would chew gum and just toss it out the car window or spit it out on a bush but now I make sure that I place it in the trash.”

Perception of the Recycling Process

Interviewers asked participants to describe their understanding of how the waste collection system works, and how the waste collection system would ideally work. Participants mentioned the idea of handling waste in separate streams and the process materials go through after reaching the recycling center.

Separate streams

Participants described garbage, recycling and compost being handled separately. Two participants mentioned that everything in both garbage and recycling is sorted before being reused, melted or destroyed.

Preparing and sorting recyclables for reuse

Participants referenced the separation of different types of recyclable materials and other preparation activities such as cleaning and compressing.

The current system is perceived as a good system

When asked about an ideal way of dealing with waste, most participants thought the current process deals with waste well. One participant mentioned disposing of fewer items as a way to improve the current process, and two participants mentioned greater community education.

Positive Perception of Recycling Behavior

Interview participants rated both their own recycling performance and their community's recycling performance highly on a scale of 1-5.

Participants rated their community's current performance a 3, a 4 or a 5

One participant did not feel comfortable rating their community due to the lack of understanding of other people's behaviors. Participants cited the following reasons for their rating:

- For participants who rated their community a 4 or 5, the behavior they observe in their neighbors; participants notice whether neighbors recycle or not, and two participants mentioned that their neighbors' recycling behavior means they respect the community where they live
- Two participants who rated their community a 4 mentioned that the community could still use more information about recycling.
- The participant who rated their neighborhood a 3 stated that people were not aware of the environmental impact they have.

Participants rated their own performance a 4 or a 5

Five participants rated themselves a 5 and cited their own conscientiousness about the importance of recycling was the reason why they gave themselves the highest rating. The seven participants who rated themselves a 4 cited the following reasons:

- They still feel there is additional knowledge they need about which materials to recycle.
- One participant mentioned their family's behavior as an area of improvement.
- Two participants mentioned the need to personally make a greater effort to always sort waste properly.

Identifying Areas of Growth for Trust Participants

Of the 103 participants who were in the Trust stage of the Behavior Change Continuum in the pre-survey, 47 answered the post-survey and provided insights into what recycling topics are of interest to them, how they learn about recycling and their composting behavior.

Interest in Gaining Deeper Knowledge about Recycling and Compost

Among these 47 Trust Participants, 21 reported learning something new about recycling in the past six weeks, with the majority learning something new about recyclable materials and processes (Figure 20). Trust Participants learned that certain materials are not recyclable, such as diapers, clothing and disposable plates. They also learned additional details about how to recycle common materials, like jars and bottles. One participant learned that lids can be left on bottles if they are made of the same material as the bottle. Trust Participants also learned that recyclables need to be clean before placing them in the bin, mentioning specific processes such as rinsing recyclables or cleaning fats and food from recyclables.

Three (3) Trust Participants also learned more about compost. One participant mentioned learning that food can go in the yard waste bin, and two participants learned about specific materials that can be placed in the compost: pizza boxes and coffee filters. One participant learned about what types of items can be made with recycled plastics after buying a shirt made of recycled plastic, and another learned that the recycling center creates jobs for the community.

Trust Participants cited a variety of sources for learning this new information: brochures, visuals on the recycling bin, advertising and web browsing. Five participants cited information that they received through WM, including three who mentioned information received through the ads, text messages and door-to-door outreach that were part of the outreach pilot.

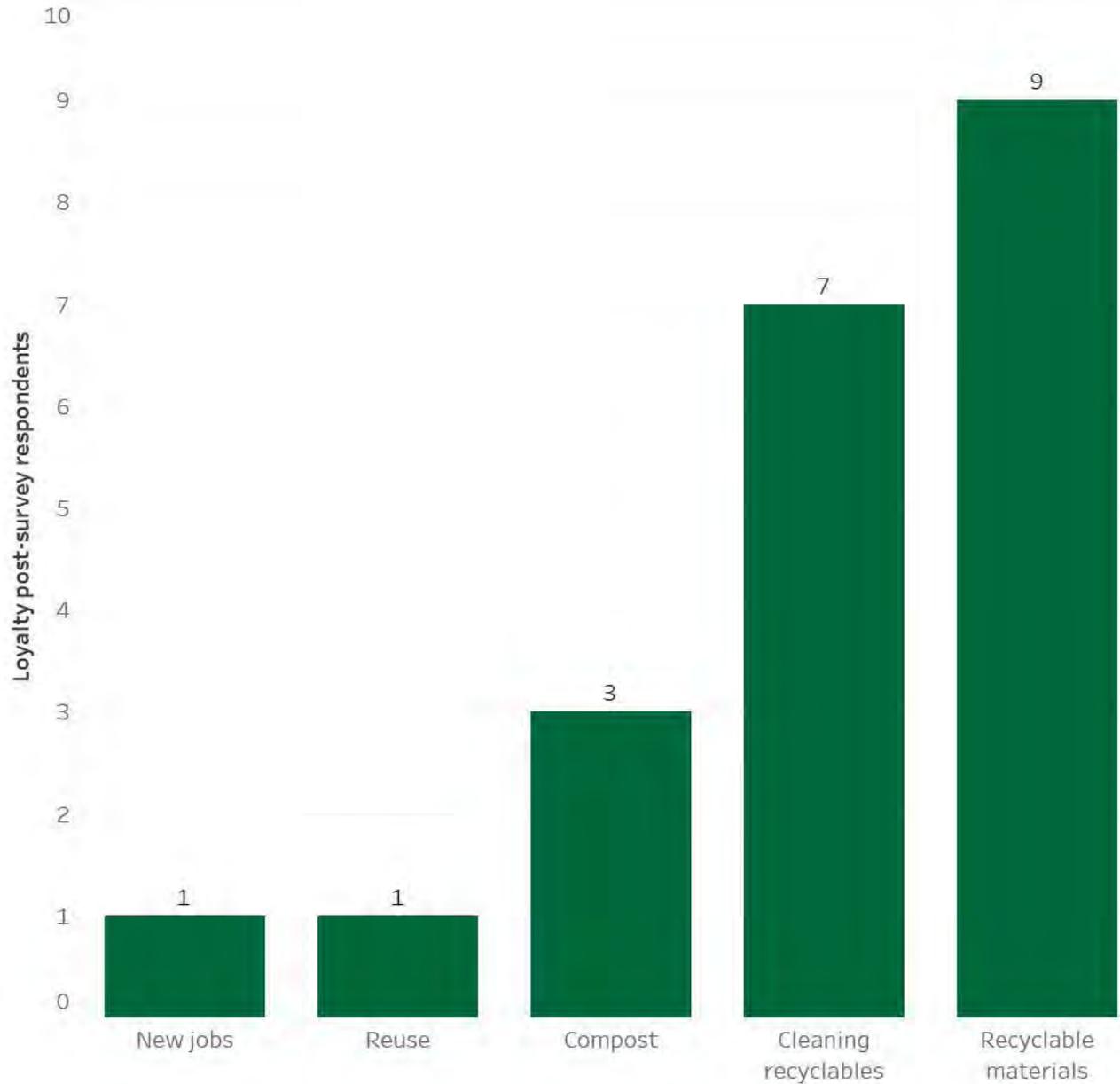


Figure 20: New Learnings

When it comes to what type of new information Trust Participants would like to learn about recycling, most would like more information about whether certain materials can be recycled (Figure 21). Three participants had questions about plastics, asking whether plastic shopping bags could be recycled, what types of plastic are not recyclable and why plastics with the chasing arrows sign cannot be recycled. One participant had a question about cardboard, asking whether food-soiled cardboard should be placed in the garbage or in the compost. The remaining participants had questions about the recyclability of items that fall outside the basics of paper, bottles and cans; mentioning deodorant and shaving cream containers, medicine containers, shaving razors, computers, printers, refrigerators and other electronics.

Three (3) participants were curious about the recycling process once the bin leaves the curb. Participants wanted to know where the recycling goes, how the materials are separated at the recycling center, and what our recyclables are used for once they are collected. One (1) participant asked about the proper process for recycling at home. The participant washes recyclables at home and wanted confirmation if this was the proper process.

When it comes to compost, three (3) participants requested general information about compost, while one person asked why there is a separate compost fee. Trust Participants were also curious about updates to recycling guidelines and technology, how items are reused, and how recycling profits are used.

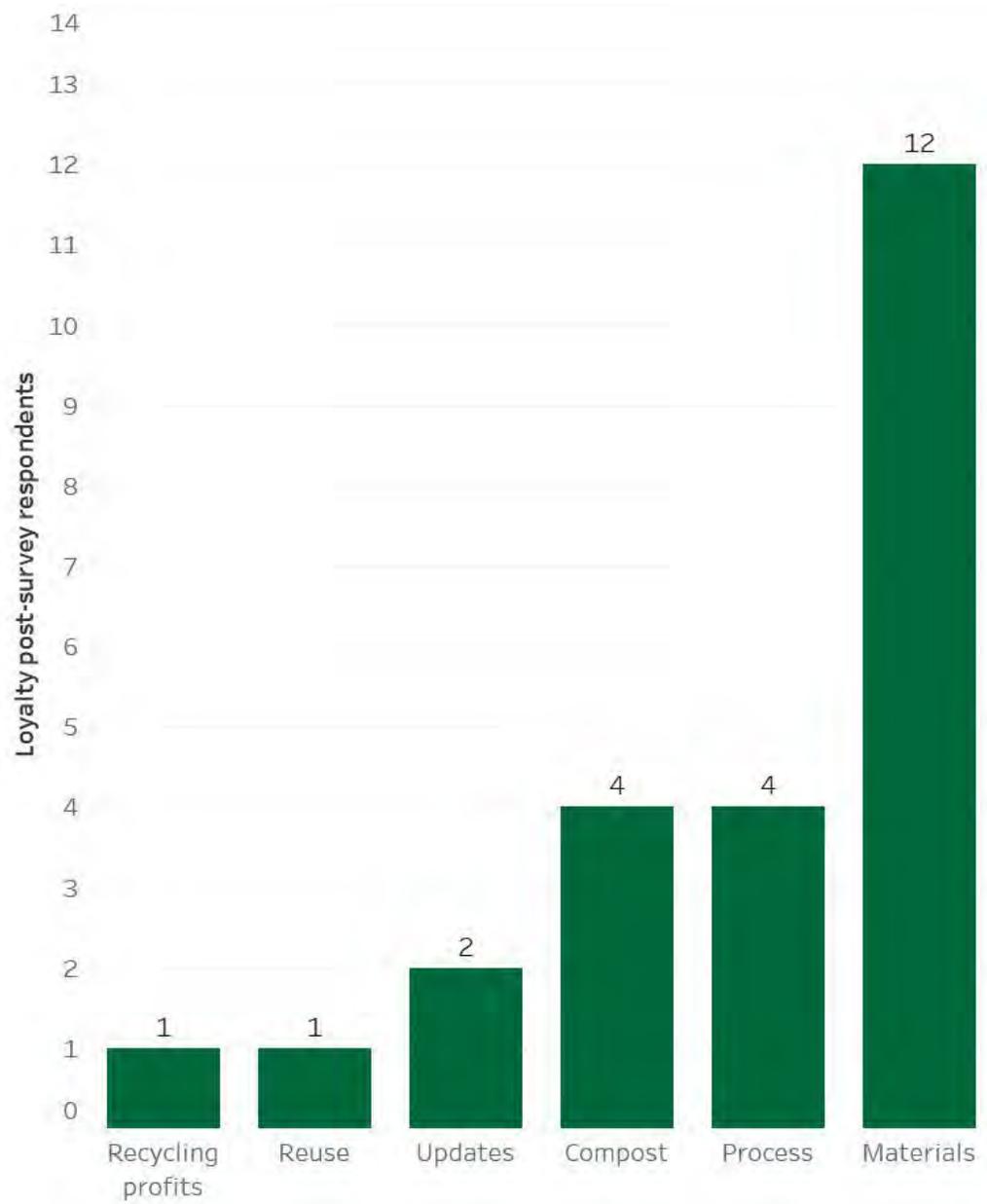


Figure 21: New information desired

Information and Tools Help Participants Recycle Better

Trust Participants also shared what resources have been helpful in their recycling journey, and what new information they would like to learn about recycling. Nearly half of respondents cited receiving recycling information as a resource that helped them recycle better, with eight (8) participants specifically citing information they received from WM (Figure 22). Advertising and word of mouth were also mentioned as specific sources of information. After information, recycling tools were the most helpful resource to recycle better. Trust Participants mentioned a separate recycling container in the kitchen and a designated recycling area at home as helpful tools to recycle better, and one participant mentioned the recycling tote bag they received in the mail.

Trust Participants also cited their own internal motivations as resources to recycle better. Three participants mentioned teaching their children about recycling as a resource to recycle better, and others mentioned doing the right thing for the planet and for future generations.

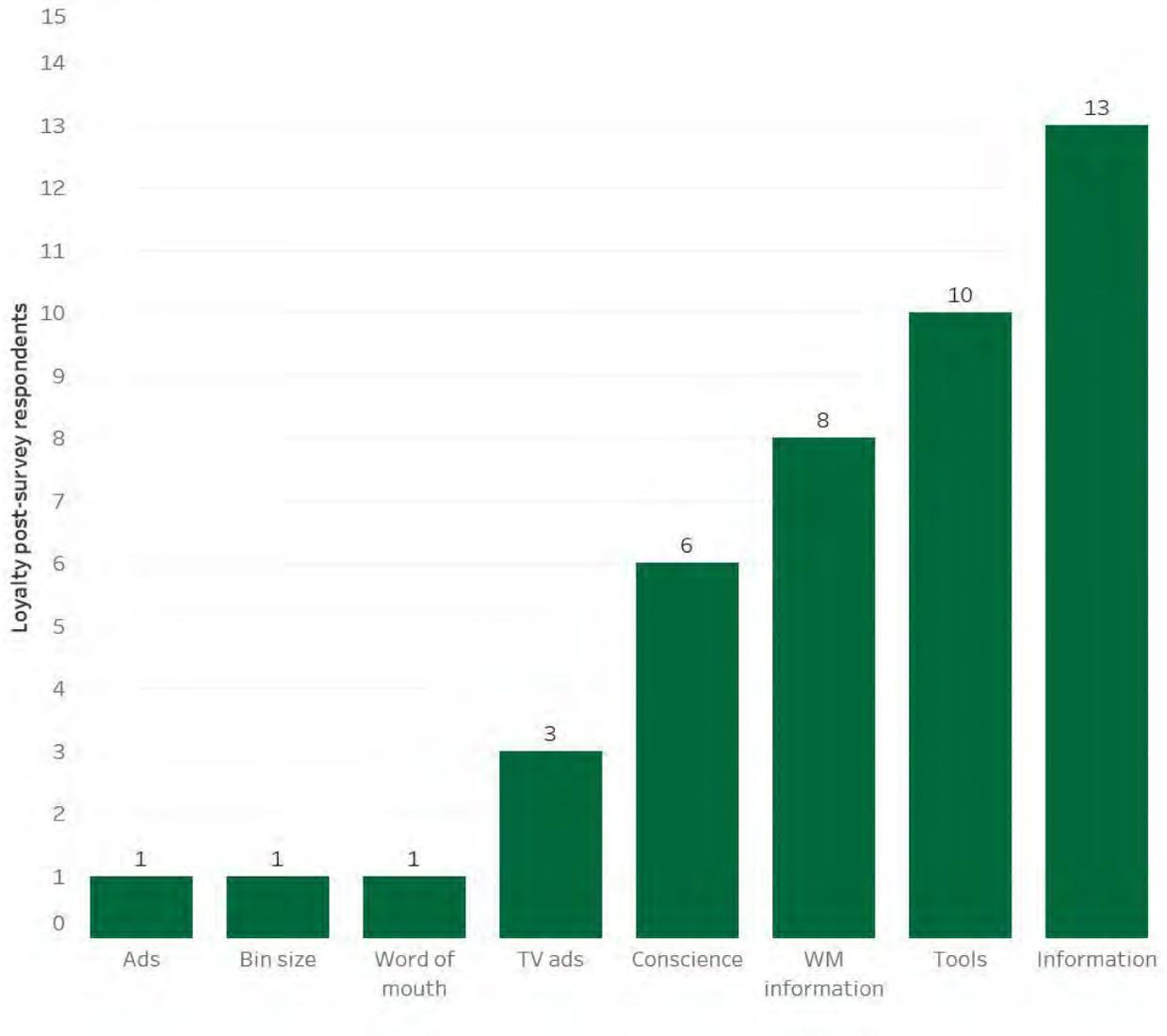


Figure 22: Recycling resources

Opportunity to Encourage Composting Behavior

While Trust Participants have reached the end of the Behavior Change Continuum for recycling behavior, the post-survey uncovered an opportunity to shift their compost behavior (Figure 23). Nearly half of these participants do not compost at home.

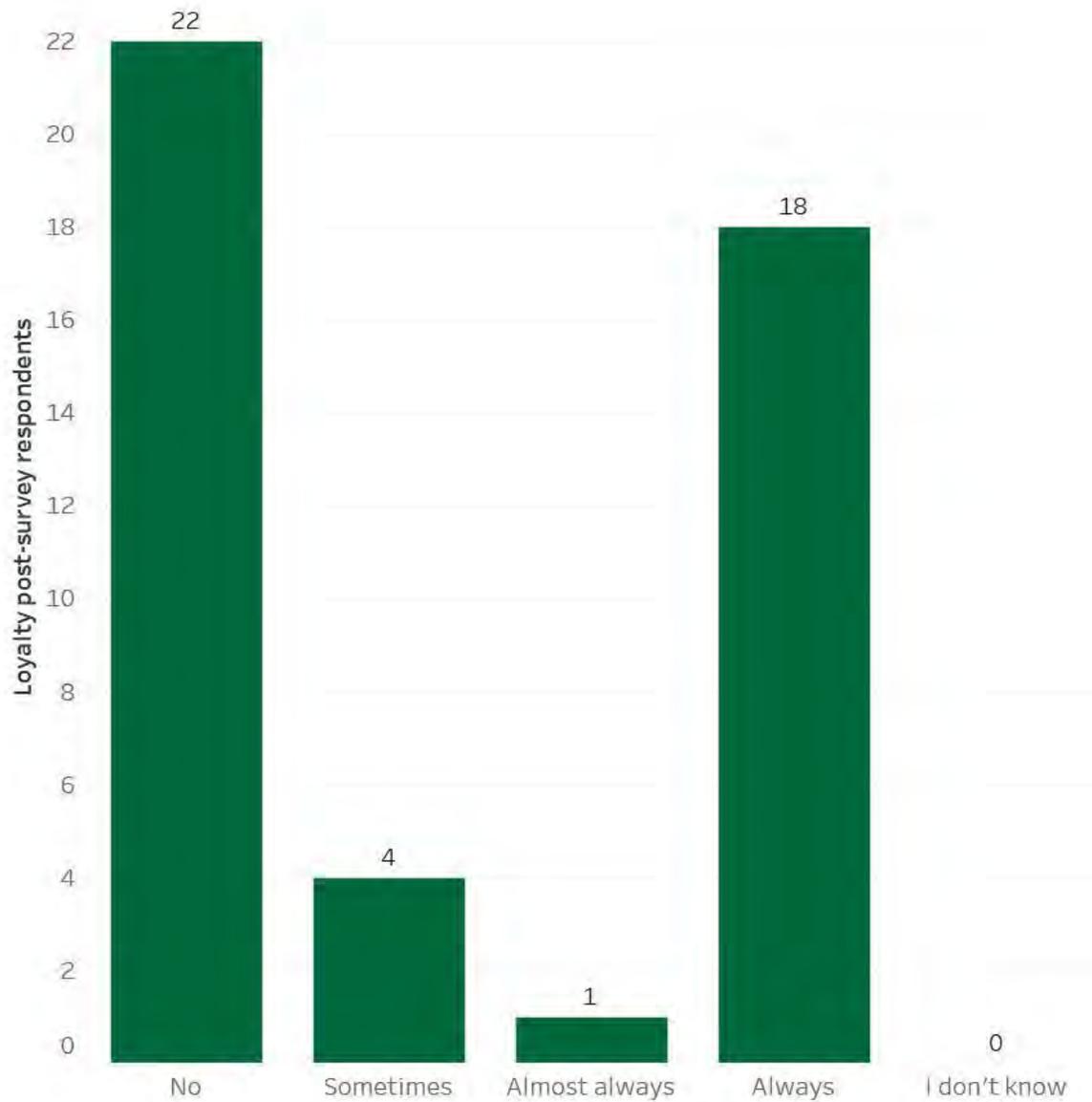


Figure 23: Compost behavior

Trust Participants cited information as the top resource that would help them compost better, in particular, information about what goes in the compost bin (Figure 24). Trust Participants also mentioned learning how to make their own compost at home, visual aids to place on the compost bin and where to buy compostable bags as resources that would be helpful.

Five (5) participants cited cost as the reason why they do not have the service and a lower cost as an incentive to request the service. Participants also mentioned having a small container for their kitchens, having more collection days and having access to the service as incentives to participate.

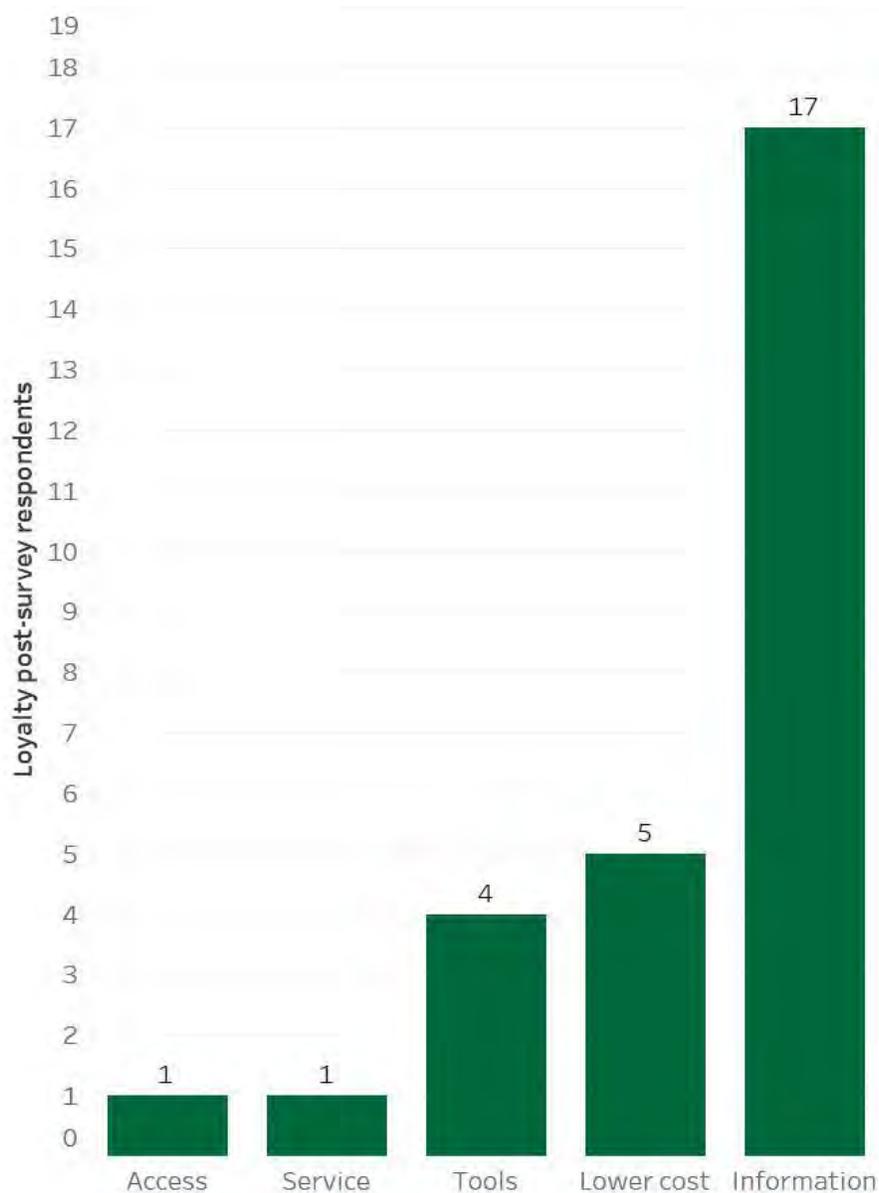


Figure 24: Compost incentives

Conclusion

The Latino Outreach Pilot covered 12% of WM customers in the pilot area. The majority of participants started out in the Behavior Change stage of the Behavior Change Continuum – 59.9% of pilot participants and 7% of the pilot area. As such, the outreach pilot provides insight on strategies to shift participants from this stage of the continuum.

Barrier to Address among Behavior Change Participants

The team identified barriers that kept participants from shifting from the Behavior Change stage of the continuum (Figure 25). Behavior Change Participants who reported that they knew what materials went

into the recycling bin and that recycling is important to them, also reported that they placed recyclable materials in the garbage in the last 30 days. To help Behavior Change Participants move further along the continuum, WM needs to identify strategies to help these participants keep recyclables out of the garbage.

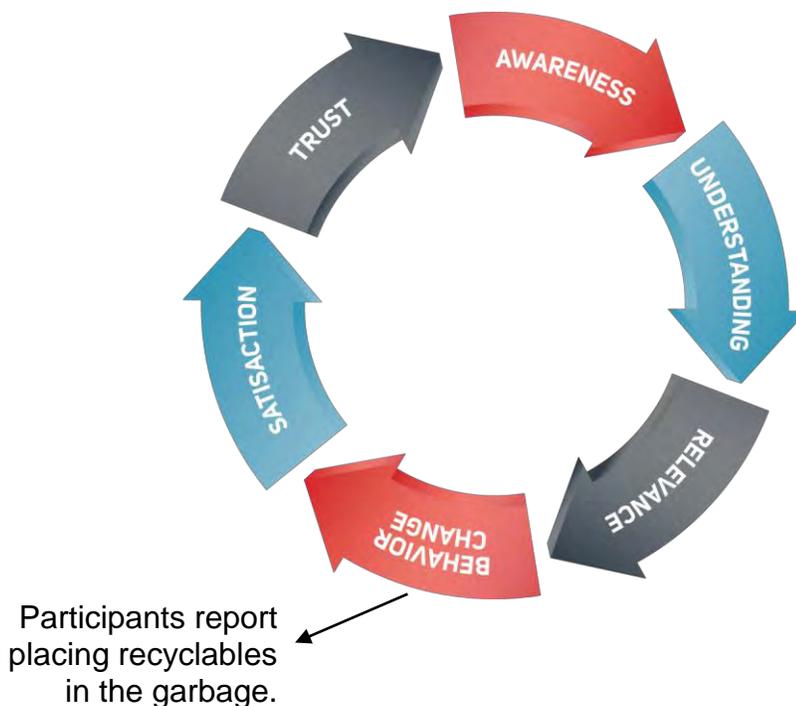


Figure 25: Barriers in the Behavior Change Continuum

Behavior Change Participant Characteristics

Among participants who started out in the Behavior Change stage and responded to both the pre-survey to the post-survey, 26 (27.9%) changed their behavior over the course of the pilot. These participants share certain key characteristics:

- They are knowledgeable about recycling, but recognize room for improvement, reporting that they know which materials to recycle “very well”
- They report a high recycling frequency, with the majority reporting they recycle “always”

Cognitive Dissonance

The 12 additional interviews conducted to better understand the cognitive dissonance that leads participants who report finding recycling very important and knowing very well which items to recycle to place recyclables in the garbage revealed very few misplaced recyclables in participants’ homes.

Based on interviewers’ conversations with these participants, the team identified four reasons why participants may have reported placing recyclables in the garbage:

1. The word “garbage” tends to be understood as an umbrella term that covers all types of waste. Participants may have interpreted the question “In the past 30 days, have you put any items in the garbage?” to be asking if they had disposed of any of these items in any bin.

2. When asked about recycling challenges, participants mentioned recycling outside of the home to be challenging since recycling containers are not always readily available. If participants correctly interpreted this question to be asking about putting these items in the garbage bin specifically, they may have considered their behavior both inside and outside of the home.
3. Participants mentioned other family members sorting waste improperly, and sometimes recovering recyclables from their garbage containers. Participants may have been thinking of recycling behavior in the entire household rather than their own individual behavior.
4. Interviewers inspected recycling and garbage containers in common areas: the kitchen and outdoor bins. When asked about their behavior when it comes to disposing of specific items, participants mentioned family members disposing of items improperly in personal waste bins in their bedrooms or in the bathroom, or personally disposing of items improperly if they were in a different room. Participants may be more likely to follow proper sorting practices in the common area bins that interviewers inspected.

Outreach preferences

66% of pilot participants recall at least one of the outreach methods tested during the pilot. Participants showed a preference towards mail outreach and TV advertising.

By simply responding to two mail-in surveys, all pilot participants displayed a preference for receiving information in the mail. The surveys themselves served as an educational tool – participants who changed their behavior but did not recall outreach nor advertising may have still been influenced by answering two surveys about recycling. Furthermore, 40% of participants who received tote bags in the mail recalled this form of outreach, and 27% of participants who recalled receiving tote bags shifted their behavior. Participants also self-reported that mail is their preferred method to receive information – 80.9% of participants selected this option when asked how they prefer to receive information.

TV advertising came in second when it comes to preferred methods to receive information – 39.4% of participants selected this option. TV had a higher recall than desktop and mobile ads, both overall and among participants who shifted their behavior. Of the 85 participants who recalled advertising, 85.8% (73/85) recalled TV ads, while 47% (40/85) recalled desktop ads and 32.9% (28/85) recalled mobile ads. Of the 34 participants who shifted their behavior, 47% (16/34) recalled TV ads, while 23.5% (8/34) recalled desktop ads and 14.2% (4/28) recalled mobile ads.

Based on these insights, WM developed an integrated marketing campaign incorporating these tactics to educate the Latino community about recycling. WM partnered with local artists, musicians and writers to develop a campaign that would resonate with the community and reach them through the channels they prefer. The “Recycling Odes” campaign employs direct mail, TV advertising, radio spots and digital ads to provide the community in-depth information about recycling paper, plastic and aluminum (Figure 26).



Figure 26: Recycling Odes Campaign

Outreach Recommendations

The survey and interviews provided insight into what types of messages and outreach may be most effective when it comes to recycling education.

Use a combination of outreach and advertising

When it comes to direct outreach, the community responded best to mailing, in response rate, recall and self-reported preference. Mail can be used both as a tool to gather input from the community and as a means to provide recycling education.

Mail outreach can be supplemented with other outreach methods, such as texting and in-person outreach. Through the survey, the community showed an interest in receiving information from WM via text message, as evidenced by the proportion of respondents who opted into the text club. WM has the opportunity to expand text club capabilities beyond unidirectional communication, and use text clubs as a mechanism to answer customer questions about recycling.

TV advertising had a high recall rate, and it also emerged as one of the top two preferred methods to receive information self-reported by participants. We recommend creating a suite of advertisements that can be adapted to different platforms, from TV to digital to social, to reach customers on different channels.

Leverage the environment as a unifying message

Across stages of the Behavior Change Continuum, participants cited one key motivator behind recycling: protecting the environment. The environment can be the umbrella that unites messaging about recycling.

Develop community-based messaging

Participants rate recycling behavior in their community highly in part due to their observations about their neighbors' behavior. They notice whether neighbors are using their recycling bins and bringing them to the curb on collection day. Future messaging can emphasize recycling as a community effort,

highlighting items that WM has observed improperly sorted as opportunities for the community to make an impact on recycling rates.

Provide detailed information about priority recyclable materials

Through the post-survey, participants asked in-depth questions about paper and plastic, such as what to do with food-soiled cardboard and why plastics have chasing arrow symbols if they cannot be recycled. When sharing information about priority materials, finding ways to cover both the basics and more in-depth information can help engage customers.

The interviews revealed that plastic is a material that tends to confuse customers. Interviewers found plastic clamshells, loose plastic bags, a plastic lid, a plastic straw and plastic bags containing recyclables in recycling containers since participants did not know that these items are not recyclable. Current plastic recycling education focuses on what shapes of plastics to recycle. The team recommends supplementing this message with information about which types of plastics cannot be placed in the recycling bin and prominently featuring clamshells in this messaging.

Clarify how to dispose items outside of priority materials

Through the survey, participants inquired about many different types of materials through the post-survey, from cans of shaving cream to electronics. During interviews, the team noticed miscellaneous items in the recycling: a blender and an acrylic stand. Information about priority materials could emphasize that these are the items that can be recycled without exception, and refer customers to a resource where they can verify how to dispose of materials outside of these basics. Additionally, we recommend creating interactive platforms where customers can ask questions about these difficult to dispose of materials.

Create additional recycling giveaways

Across mail-in tools and door-to-door outreach, the recycling tote bag was a popular giveaway, and a tangible reminder to recycle. We recommend creating a suite of giveaway items to supplement the recycling tote bag, such as visual decals that customers can place on their recycling containers as reminders of the correct placement of items they find difficult to recycle. For instance, WM can create a decal of a glass jar without a lid to remind customers to remove lids from glass containers before recycling. WM can distribute a variety of decals through in-person outreach, or create platforms for customers to request decals, such as a text messaging service or a digital ad.

Through interviews, calendars emerged as an item that holds significance to the community. Participants think of their calendars not just as a way to plan for upcoming appointments, but as a tool to preserve memories after the year is over. For most participants, keeping a calendar is a habit, and they mentioned bakeries and their children's schools as the source of their calendars.

The team recommends developing a 2019 calendar as an educational tool. The "Odes to Recycling" concept provides informative and visually appealing artwork that can be featured on the calendar. WM can partner with local businesses to distribute the calendars or distribute the calendars at WM outreach events.

Appendix A: Pre-survey Questions

1. What is the primary language spoken in your home? (*Choose one*)
 English Spanish Other _____

2. What waste collection services do you have available at your home?
(*Check all that apply*)
 Garbage Recycling Food & Yard Waste **I don't know**

3. Is recycling important to you?
 No, not at all important No, not very important Yes, a little important
 Yes, very important

4. How well do you know which items are recyclable and which are not?
 I don't know at all I know a little I know more or less
 I know very well I know perfectly

5. Do you recycle?
 No Sometimes Almost always Always **I don't know**

6. In the past 30 days have you put any of these items in the garbage?
(*Check all that apply*)
 Aluminum cans Paper Glass bottles Plastic bottles

7. How easy is it for you to recycle at home?
 Very difficult *Difficult* *Easy* *Very easy*

8. Is it important to you if your friends and family recycle?
 No, not at all important No, not very important Yes, a little important
 Yes, very important

Appendix B: Qualifier mailer



1011 Western Ave, Suite 702 • Seattle, WA 98104



Snohomish County

PSRRT STD
US POSTAGE
PAID
SEATTLE, WA
PERMIT NO 2389

LLENA ESTA BREVE ENCUESTA Y RECIBE UNA TARJETA DE REGALO.

TU OPINIÓN NOS AYUDARÁ A OFRECER MEJORES SERVICIOS A NUESTRA COMUNIDAD.

Envíame textos informativos sobre el reciclaje a ese número de teléfono () - _____

1: ¿Qué idioma se habla principalmente en tu hogar? (Elije uno)
 Inglés
 Español
 Otro _____

2: ¿Qué servicios de recolección de desperdicios están disponibles en tu hogar? (Selecciona todos los servicios disponibles)
 Basura
 Reciclaje
 Desechos de comida y jardín
 No lo sé

3: ¿Es recibir información para ti?
 No es para nada importante
 No, no es tan importante
 Sí, es un poco importante
 Sí, es muy importante

4: ¿Qué tan bien sabes cuáles artículos son reciclables y cuáles no?
 No lo sé para nada
 Lo sé muy poco
 Lo sé más o menos
 Lo sé muy bien
 Lo sé perfectamente

5: ¿Triciclos?
 No
 A veces
 Casi siempre
 Siempre
 No lo sé

6: En los últimos 30 días, ¿has puesto alguno de estos artículos en la basura? (Selecciona todos los artículos que hayas puesto en la basura)
 Metal o aluminio
 Papel
 Botellas de vidrio
 Botellas de plástico
 Cartón
 No lo sé

7: ¿Qué tan fácil es para ti reciclar en casa?
 Muy difícil
 Difícil
 Fácil
 Muy fácil

8: ¿Para ti es importante que tus familiares y amigos reciclen?
 No es para nada importante
 No, no es tan importante
 Sí, es un poco importante
 Sí, es muy importante

Appendix C: Recicla Ad Screenshot



Appendix D: Media Plan

WM Snohomish (Spanish) Ad Calendar - 2017 As of 4/12/17		May					June					City	Total NET Cost	Est Total Impressions	CPM	% of Budget																														
		01	08	15	22	29	05	12	19	26	03																																			
SPANISH TV																																														
Univision, KUNS (TV)																																														
30-second spots		Due: 5/8 <table border="1"> <tr><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td></tr> <tr><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>11</td><td>11</td><td>11</td><td>11</td><td>11</td></tr> <tr><td>22</td><td>22</td><td>22</td><td>22</td><td>22</td></tr> </table>										8	8	8	8	8	5	5	5	5	5	1	1	1	1	1	1	1	1	1	1	11	11	11	11	11	22	22	22	22	22	105 total spots (56 paid)	\$6,500	1,114,796	\$8	34%
8	8	8	8	8																																										
5	5	5	5	5																																										
1	1	1	1	1																																										
1	1	1	1	1																																										
11	11	11	11	11																																										
22	22	22	22	22																																										
M-F 7am-11am Despierta America (Morning Talk Show) M-F 4pm-12am Afternoon, News, Prime, Night Rotator M-F 6:30p-7p Noticias Univision M-F 11-11:30pm Noticias Univision Seattle (Local News) M-Su 5a-12a PSA (Bonus*)																																														
Interview TBD, Pending News Director approval Facebook 5x		<table border="1"> <tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> </table>										1	1	1	1	1	5 spots																													
1	1	1	1	1																																										
SPANISH DIGITAL																																														
King5 Extended Network												Video + Display Ads	\$7,500	937,500	\$8	30%																														
Ads appear across thousands of sites, but segmented to (1) Snohomish County and (2) Spanish Language. Ads appear on desktop, tablet, and mobile devices. Video, 160x600, 300x250, 728x90, 300x50, 320x50 mobile		<table border="1"> <tr><td colspan="5">5/15-6/14</td></tr> </table>										5/15-6/14																																		
5/15-6/14																																														
Google Display Network* & YouTube												Video + Display Ads	\$5,676	1,135,200	\$5	23%																														
Video ads + Display ads will appear across thousands of sites, including YouTube, but will be segmented to (1) Snohomish County and (2) Spanish Language. Ads appear on desktop, tablet, and mobile devices. Complements Media Max campaign. 160x600, 300x250, 300x600, 728x90, 300x100 mobile		<table border="1"> <tr><td colspan="5">5/15-6/14</td></tr> </table>										5/15-6/14							estimate**																											
5/15-6/14																																														
Pandora												Audio + Display Ads	\$3,328	276,595	\$12.02	13%																														
:30-second Audio spot + Banner ads, segmented to Hispanic Bilingual + Spanish Preferred + Snohomish County only. :30-second audio, 300x250, 500x500		<table border="1"> <tr><td colspan="5">5/15-6/14</td></tr> </table>										5/15-6/14																																		
5/15-6/14																																														
												4.5 weeks	\$25,000	3,187,486	\$8	100%																														
												Budget:	\$25,000																																	
												Remaining:	\$0																																	

*King5 Network and Google Network both comprise thousands of sites segmented to our target. They are bought differently and will not compete, they will complement each other. Neither tactic has enough inventory to satisfy the combined budget of both networks.

**Google/YouTube Pricing is based on real-time bidding. Impressions are projections based on similar campaigns.

Appendix E: Digital Ads



Bottles CTA 1



Bottles CTA 1



Paper CTA 1



Paper CTA 2

Appendix F: Tote Bag Request Form

Completed tote bag request forms were sent to reciclaWM@cplusc.com. For each tote bag request, the team first searched for the address of the WUTC residential customers in Snohomish County provided by WM. If the address was found on the list, the team mailed out the tote bag. If the address was not on the list, WM searched for the address in their database. If the address was found in the database, the team mailed out the tote bag. If the address was not found in the database, the team notified the requester that they were not eligible to receive a tote bag.

The screenshot shows a web browser window with the URL <http://wmnorthwest.com/espanol/totebags.htm>. The page features the WM logo (WASTE MANAGEMENT) and the heading "¡Solicita tu bolsa gratis para reciclar!". Below this, it states "Oferta válida solo para clientes de WM." and "Por favor escribe tu nombre y dirección:". The form includes several input fields: "Nombre" (marked as necessary), "Email", "Teléfono", "Dirección", "Ciudad", "Estado", and "Código postal". There is a CAPTCHA section with a checkbox labeled "No soy un robot" and a small image of a recycling symbol. At the bottom of the form, there are buttons for "Enviar" (green), "Reiniciar", and "Cerrar ventana".

Appendix G: Text Club Messages

Post #1

Al reciclar tus botellas de plástico y de vidrio, les das la oportunidad de convertirse en algo nuevo. Aprende más sobre el reciclaje con WM.

Link: <http://wmnorthwest.com/espanol/bottles.htm>

Image: Recicla Botellas



Recicla botellas

Post #2

Recuerda siempre reciclar las latas de aluminio, ¡solo toma 60 días que se convierta en una lata nueva!
Aprende más sobre el reciclaje con WM.

Link: <http://wmnorthwest.com/espanol/cans.htm>

Image: Recicla Latas



Post #3

¡Todo tipo de papel se puede reciclar! El periódico se puede convertir en una nueva caja de cereal.
Aprende más sobre el reciclaje con WM.

Link: <http://wmnorthwest.com/espanol/paper.htm>

Image: Recicla Papel



Recicla papel

Post #4

Recicla las bolsas de papel, pero no las de plástico ya que pueden paralizar un centro de reciclaje si quedan atascadas en la maquinaria. Aprende más sobre el reciclaje con WM.

Link: <http://wmnorthwest.com/espanol/plasticbags.htm>

Image: Recicla bolsas de papel



Appendix H: Gif Screenshots

Don't Recycle Plastic Bags Gif



Recycle All Bottles Gif



Recycle All Cans Gif



Recycle All Paper Gif



Appendix I: Direct Mail Tools



Appendix J: Door-to-Door Script

Script

Hi there! My name is _____ and I'm here with Waste Management. I'm here to deliver a free tote bag to help you recycle.

[Hand tote bag to customer]

You can use this tote bag to collect your recycling at home, and then once it is full you can empty it in your recycling bin outside.

If you look inside the bag, you'll find recycling guidelines in Spanish that you can consult to confirm which types of items are recyclable.

Secondary messaging

All empty bottles, cans, and paper should be placed in the recycling bin.

By recycling, your bottles, cans and paper can be made into new items.

Plastic bottles can turn into clothing

Aluminum cans can turn into new ones in 60 days

Today's news can become a new cereal box

Plastic bags should be kept out of the recycling bin.

Plastic bags can shut down an entire recycling plant!

Appendix K: Evaluation Mailer

Awareness through Satisfaction Participants (Spanish)

GRACIAS POR PARTICIPAR EN NUESTRA ENCUESTA. TU TARJETA DE REGALO HA LLEGADO.

Contesta esta encuesta para recibir una tarjeta de regalo de \$30.



Es muy sencillo, sigue estos tres pasos...

-  **1.** Contesta todas las preguntas de la encuesta.
-  **2.** Pon la encuesta en el sobre prepagado. (No es necesario poner una estampilla).
-  **3.** Pon el sobre en el buzón de correo antes del 30 de junio de 2017

Y luego recibirás tu tarjeta de regalo de **\$30**.

Agradecemos tu tiempo y contribución.

Tu participación nos ayudará a ofrecer mejores servicios a nuestra comunidad.



CONTESTA TODAS LAS PREGUNTAS PARA RECIBIR TU TARJETA.

1: ¿Qué servicios de recolección de desperdicios están disponibles en tu hogar? (Selecciona todos los servicios disponibles)

- Basura Reciclaje Desechos de comida y de jardín No lo sé

2: ¿Es reciclar importante para ti?

- No es para nada importante No, no es tan importante Sí, es un poco importante Sí, es muy importante

3: ¿Por qué?

4: ¿Qué tan bien sabes cuáles artículos son reciclables y cuáles no?

- No lo sé para nada Lo sé muy poco Lo sé más o menos Lo sé muy bien Lo sé perfectamente

5: ¿Cómo preferirías obtener información sobre cuáles artículos son reciclables?

(Selecciona todas las opciones que aplican)

- Por correo Sitio web gubernamental Otro sitio web _____ Redes sociales _____ Familiares/amigos _____
- Mensajes de texto Televisión Radio Periódico Pandora
- Spotify Organización comunitaria Visita de WM a mi hogar En un evento Otro _____

6: ¿En qué idioma preferirías recibir información sobre el reciclaje?

- Inglés Español Otro _____

7: ¿Tú reciclas?

- No A veces Casi siempre Siempre No lo sé

8: En los últimos 30 días, ¿has puesto alguno de estos artículos en la basura?

(Selecciona todos los artículos que hayas puesto en la basura)

- Metal o aluminio Papel Botellas de vidrio Botellas de plástico Cartón

9: ¿Qué tan fácil es para ti reciclar en casa?

- Muy difícil Difícil Fácil Muy fácil

10: ¿Para ti es importante que tus familiares y amigos reciclen?

- No es para nada importante No, no es tan importante Sí, es un poco importante Sí, es muy importante

TU OPINIÓN NOS AYUDARÁ A OFRECER MEJORES SERVICIOS A NUESTRA COMUNIDAD.

CONTESTA TODAS LAS PREGUNTAS PARA RECIBIR TU TARJETA.

11: En las últimas 6 semanas, ¿has obtenido información sobre el reciclaje en alguna de estas maneras y qué tan útil te pareció la información? (Selecciona todas las opciones que aplican)

- Yo recibí mensajes de texto sobre el reciclaje
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Yo recibí una bolsa para reciclar en el correo
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Alguien me visitó con información sobre el reciclaje
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
-
- Yo vi anuncios sobre el reciclaje en la televisión
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Yo vi anuncios sobre el reciclaje en línea en mi computadora
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Yo vi anuncios sobre el reciclaje en línea en mi celular
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Yo recibí información sobre el reciclaje en un evento
- Para nada Útil No tan Útil Más o menos Útil Muy Útil
- Yo no obtuve información sobre el reciclaje de ninguna de estas maneras

TU OPINIÓN NOS AYUDARÁ A OFRECER MEJORES SERVICIOS A NUESTRA COMUNIDAD.

**GRACIAS POR PARTICIPAR
EN NUESTRA ENCUESTA.
TU TARJETA DE REGALO
HA LLEGADO.**

**Contesta esta encuesta para
recibir una tarjeta de regalo
de \$30.**



**Es muy sencillo,
sigue estos tres
pasos...**



1. Contesta todas las preguntas de la encuesta.



2. Pon la encuesta en el sobre prepagado. (No es necesario poner una estampilla).



3. Pon el sobre en el buzón de correo antes del 30 de junio de 2017.

Y luego recibirás tu tarjeta de regalo de **\$30**.

Agradecemos tu tiempo y contribución.

Tu participación nos ayudará a ofrecer mejores servicios a nuestra comunidad.



CONTESTA TODAS LAS PREGUNTAS PARA RECIBIR TU TARJETA.

1: ¿Por qué es el reciclaje importante para ti?

2: ¿Qué te ha ayudado a reciclar mejor?

3: En las últimas 6 semanas, ¿has aprendido algo nuevo sobre el reciclaje?

Sí No

Si aprendiste algo nuevo, ¿qué fue? ¿Cómo lo aprendiste?

4: ¿Hay algo más que te gustaría aprender sobre el reciclaje?

5: ¿Usas el bote de compost?

No A veces Casi siempre Siempre No lo sé

¿Qué recursos podríamos proveer para ayudarte a usar el bote de compost?

TU OPINIÓN NOS AYUDARÁ A OFRECER MEJORES SERVICIOS A NUESTRA COMUNIDAD.

CONTESTA TODAS LAS PREGUNTAS PARA RECIBIR TU TARJETA.

6: ¿Cómo preferirías obtener información sobre cuáles artículos son reciclables?

(Selecciona todas las opciones que aplican)

- | | | | | |
|--|---|--|---|--|
| <input type="checkbox"/> Por correo | <input type="checkbox"/> Sitio web gubernamental | <input type="checkbox"/> Otro sitio web | <input type="checkbox"/> Redes sociales | <input type="checkbox"/> Familiares/amigos |
| <input type="checkbox"/> Mensajes de texto | <input type="checkbox"/> Televisión | <input type="checkbox"/> Radio | <input type="checkbox"/> Periódico | <input type="checkbox"/> Pandora |
| <input type="checkbox"/> Spotify | <input type="checkbox"/> Organización comunitaria | <input type="checkbox"/> Visita de WM a mi hogar | <input type="checkbox"/> En un evento | <input type="checkbox"/> Otro |

7: ¿En qué idioma preferirías recibir información sobre el reciclaje?

- Inglés Español Otro _____

8: En las últimas 6 semanas, ¿has obtenido información sobre el reciclaje en alguna de estas maneras y qué tan útil te pareció la información? (Selecciona todas las opciones que aplican)

- | | | | | |
|--|---|--|---|-------------------------------------|
| <input type="checkbox"/> Yo recibí mensajes de texto sobre el reciclaje | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo recibí una bolsa para reciclar en el correo | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Alguien me visitó con información sobre el reciclaje | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo vi anuncios sobre el reciclaje en la televisión | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo vi anuncios sobre el reciclaje en línea en mi computadora | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo vi anuncios sobre el reciclaje en línea en mi celular | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo recibí información sobre el reciclaje en un evento | <input type="checkbox"/> Para nada útiles | <input type="checkbox"/> No tan útiles | <input type="checkbox"/> Más o menos útiles | <input type="checkbox"/> Muy útiles |
| <input type="checkbox"/> Yo no obtuve información sobre el reciclaje de ninguna de estas maneras | | | | |

TU OPINIÓN NOS AYUDARÁ A OFRECER MEJORES SERVICIOS A NUESTRA COMUNIDAD.

THANK YOU FOR PARTICIPATING IN OUR SURVEY. YOUR GIFT CARD HAS ARRIVED.

Answer this survey to receive a \$30 gift card.



It's really simple, follow these three steps...



1. Answer all the survey questions.



2. Put the survey in the prepaid envelope. (It's not necessary to use a stamp).



3. Drop the envelope in the mailbox before June 30, 2017.

And then receive your **\$30** gift card.

We really appreciate your time and contribution.

Your participation will help us offer better services in our community.



ANSWER ALL THE QUESTIONS TODAY TO RECEIVE YOUR GIFT CARD!

1: What waste collection services do you have available at your home? (Check all that apply)

- Garbage Recycling Food & Yard Waste I don't know

2: Is recycling important to you?

- No, not at all important No, not really important Yes, somewhat important Yes, very important

3: Why?

4: How well do you know which materials are recyclable and which are not?

- I don't know at all I know very little I know more or less I know very well I know perfectly

5: What would be your preferred way to get information about which items are recyclable? (Check all that apply)

- By mail Government website Other website _____ Social media _____ Friends/family _____
- Text message Television Radio Newspaper Pandora
- Spotify Community organization A visit from WM At an event Other _____

6: In which language would you prefer to get information about recycling?

- English Spanish Other _____

7: Do you recycle?

- No Sometimes Most of the time Always I don't know

8: In the past 30 days have you put any of these items in the garbage? (Check all that apply)

- Metal or aluminum Paper Glass bottles Plastic bottles Cardboard

9: How easy is it for you to recycle at home?

- Very difficult Difficult Easy Very easy

10: Is it important to you if your friends and family recycle?

- No, not at all important No, not really important Yes, somewhat important Yes, very important

YOUR OPINION WILL HELP US OFFER BETTER SERVICES TO OUR COMMUNITY.

ANSWER ALL THE QUESTIONS TODAY TO RECEIVE YOUR GIFT CARD!

11: In the past 6 weeks, have you obtained information about recycling in any of the following ways? How useful did you find the information? (Check all that apply)

- I received text messages about recycling
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- I received a recycling tote bag in the mail
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- Someone came to my door with information about recycling
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful

- I saw TV ads about recycling
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- I saw online ads about recycling on my computer
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- I saw online ads about recycling on my mobile phone
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- Someone told me about recycling at an event
 - Not helpful at all
 - Not very helpful
 - Somewhat helpful
 - Very helpful
- I didn't receive any information about recycling

YOUR OPINION WILL HELP US OFFER BETTER SERVICES TO OUR COMMUNITY.

**THANK YOU FOR
PARTICIPATING IN OUR
SURVEY. YOUR GIFT CARD
HAS ARRIVED.**

**Answer this survey to receive
a \$30 gift card.**



**It's really simple,
follow these
three steps...**



1. Answer all the survey questions.



2. Put the survey in the prepaid envelope.
(It's not necessary to use a stamp).



3. Drop the envelope in the mailbox
before June 30, 2017.

And then receive your **\$30** gift card.

We really appreciate your time and contribution.

Your participation will help us offer better services in our community.



ANSWER ALL THE QUESTIONS TODAY TO RECEIVE YOUR GIFT CARD!

1: Why is recycling important to you?

2: What has helped you become a better recycler?

3: In the past 6 weeks, have you learned anything new about recycling?

- Yes No

If you learned something new, what was it? How did you learn it?

4: Is there anything you would like to learn more about when it comes to recycling?

5: Do you compost at home?

- No Sometimes Most of the time Always I don't know

What resources can we provide to help you compost at home?

YOUR OPINION WILL HELP US OFFER BETTER SERVICES TO OUR COMMUNITY.

ANSWER ALL THE QUESTIONS TODAY TO RECEIVE YOUR GIFT CARD!

6: What would be your preferred way to get information about which items are recyclable? (Check all that apply)

- | | | | | |
|---------------------------------------|---|--|---|---|
| <input type="checkbox"/> By mail | <input type="checkbox"/> Government website | <input type="checkbox"/> Other website _____ | <input type="checkbox"/> Social media _____ | <input type="checkbox"/> Friends/family |
| <input type="checkbox"/> Text message | <input type="checkbox"/> Television | <input type="checkbox"/> Radio | <input type="checkbox"/> Newspaper | <input type="checkbox"/> Pandora |
| <input type="checkbox"/> Spotify | <input type="checkbox"/> Community organization | <input type="checkbox"/> A visit from WM | <input type="checkbox"/> At an event | <input type="checkbox"/> Other _____ |

7: In which language would you prefer to get information about recycling?

- English Spanish Other _____

8: In the past 6 weeks, have you obtained information about recycling in any of the following ways? How useful did you find the information? (Check all that apply)

- | | | | | |
|---|---|---|---|---------------------------------------|
| <input type="checkbox"/> I received text messages about recycling | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> I received a recycling tote bag in the mail | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> Someone came to my door with information about recycling | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> I saw TV ads about recycling | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |

- | | | | | |
|--|---|---|---|---------------------------------------|
| <input type="checkbox"/> I saw online ads about recycling on my computer | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> I saw online ads about recycling on my mobile phone | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> Someone told me about recycling at an event | <input type="checkbox"/> Not helpful at all | <input type="checkbox"/> Not very helpful | <input type="checkbox"/> Somewhat helpful | <input type="checkbox"/> Very helpful |
| <input type="checkbox"/> I didn't receive any information about recycling | | | | |

YOUR OPINION WILL HELP US OFFER BETTER SERVICES TO OUR COMMUNITY.

Appendix L: Post-survey Questions (Awareness through Satisfaction Participants)

1. What is the primary language spoken in your home? (*Choose one*)
 English Spanish Other _____
2. What waste collection services do you have available at your home?
(*Check all that apply*)
 Garbage Recycling Food & Yard Waste **I don't know**
3. Is recycling important to you?
 No, not at all important No, not very important Yes, a little important
 Yes, very important
4. How well do you know which items are recyclable and which are not?
 I don't know at all I know a little I know more or less
 I know very well I know perfectly
5. What would be your ideal way to get information about which items are recyclable? (Check all that apply)
 By mail Government website Other website _____
 Social media _____ Text message Television
 Radio Newspaper Pandora
 Spotify Community organization A visit from WM
 At an event Other _____
6. In which language would you prefer to get information about recycling?
 English Spanish Other _____
7. Do you recycle?
 No Sometimes Almost always Always **I don't know**
8. In the past 30 days have you put any of these items in the garbage?
(*Check all that apply*)
 Aluminum cans Paper Glass bottles Plastic bottles
9. How easy is it for you to recycle at home?
 Very difficult *Difficult* *Easy* *Very easy*
10. Is it important to you if your friends and family recycle?
 No, not at all important No, not very important Yes, a little important
 Yes, very important

11. In the last six weeks, how have you received information about recycling and how helpful was the information? (Check all that apply)

I received text messages about recycling

Not helpful at all Not very helpful Somewhat helpful Very helpful

I received a recycling tote bag in the mail

Not helpful at all Not very helpful Somewhat helpful Very helpful

Someone came to my door with information about recycling

Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw TV ads about recycling

Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw online ads about recycling on my computer

Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw online ads about recycling on my phone

Not helpful at all Not very helpful Somewhat helpful Very helpful

At an event

Not helpful at all Not very helpful Somewhat helpful Very helpful

I didn't receive anything

Appendix M: Post-survey Questions (Trust Participants)

1. Why is recycling important to you?
2. What has helped you become a better recycler?
3. In the past 6 weeks, have you learned anything new about recycling?

Yes No

If you learned something new, what was it? How did you learn it?

4. Is there anything you would like to learn more about when it comes to recycling?
5. Do you compost at home?

No Sometimes Almost always Always **I don't know**

What resources can we provide to help you compost at home?

6. What would be your preferred way to get information about which items are recyclable?

Mail Government Website Other website _____
 Friends/family Text message Social media _____
 Television Radio Newspaper
 Pandora Community organization Spotify
 Other _____

7. In what language would you prefer to receive information about recycling?

English Spanish Other _____

8. In the last six weeks, how have you received information about recycling and how helpful was the information? (check all that apply)

I received text messages about recycling
 Not helpful at all Not very helpful Somewhat helpful Very helpful

I received a recycling tote bag in the mail
 Not helpful at all Not very helpful Somewhat helpful Very helpful

Someone came to my door with information about recycling
 Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw TV ads about recycling

Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw online ads about recycling on my computer

Not helpful at all Not very helpful Somewhat helpful Very helpful

I saw online ads about recycling on my phone

Not helpful at all Not very helpful Somewhat helpful Very helpful

At an event

Not helpful at all Not very helpful Somewhat helpful Very helpful

I didn't receive anything

Appendix N: Supplemental Research Mailer

Front Cover



Instructions

Cuéntanos tu historia y recibe una tarjeta de regalo de \$125.

¡Estás invitado a participar en un estudio pagado para ayudarnos a aprender más acerca de las preocupaciones ambientales en tu comunidad!

Si deseas participar en este proyecto y compartir tus historias sobre cómo tu familia hace compras, cocina y lidia con los desechos, completa este breve cuestionario y envíanos tus respuestas hoy.

Somos C+C, una agencia de mercadeo, y visitaremos los hogares de los participantes por dos horas para escuchar sus opiniones. Tu participación nos ayudará a conocer mejor a las familias en el condado de Snohomish, y como recompensa recibirás una tarjeta de \$125.

Para participar en el proyecto, sigue estos tres pasos:



1. Contesta todas las preguntas del cuestionario



2. Separa el cuestionario



3. Ponlo en el buzón antes del 6 de octubre de 2017. No es necesario utilizar una estampilla.

Tenemos espacios limitados, ¡así que envíanos tus respuestas hoy! Para obtener más información sobre C+C, visita la página web www.cplusc.com.

Questionnaire

¡Llena el cuestionario y envíalo hoy mismo para participar en el proyecto!

1: ¿Cuál es tu número de teléfono? () _____ - _____

2: ¿Cuál es tu dirección de correo electrónico? _____

3: ¿Cuántos años tienes?

18-34

35-54

55-64

65 años o más

4: ¿Cuántas personas viven en tu hogar (incluyéndote a ti)? _____

5: ¿Hay niños en tu hogar?

Sí

No

6: Si la respuesta es sí, ¿cuántos años tiene el niño más joven del hogar?

0-1

2-5

6-10

11-17

7: ¿Cuántas veces vas al supermercado al mes?

Menos de una vez

1-3 veces

4-7 veces

8-10 veces

10+ veces

8: El nivel de ingresos de tu hogar:

Menos de \$25,000

\$25,001-
\$50,000

\$50,001-
\$75,000

\$75,000+

Nos pondremos en contacto con los participantes a través del número de teléfono especificado y la dirección de correo electrónico para agendar una cita. La información que compartas con nosotros permanecerá privada y confidencial.

Appendix O: Supplemental Research Interview Questions

Section One: The participant's relationship to the environment (10 mins)

1. Please tell us a story of a time when you and your family spent time in nature. Describe the environment to us. Was the environment clean?

For interviewers: If they struggle to think of a place, you can give examples, such as picnicking at a park or camping in a national forest.

2. In general, is the environment important to you? What makes you feel that way?

Section Two: Waste management set up at home (10 mins)

1. Can you show us how you set up waste bins (recycling, garbage and compost) in different rooms at home? Please use these icons to map your waste bins at home.



<i>Kitchen Cocina</i>	<i>Living room Sala de estar</i>	<i>Bedroom Recámara</i>	<i>Bathroom Baño</i>	<i>Garage Garaje</i>
Please type in the recycling, compost or garbage				

Section Three: Waste disposal habits in different parts of the home (20 mins)

We are going to speak about different types of items in different situations to learn how you typically dispose of them.

For interviewers: You don't have to ask the participant all of the questions below. Just ask as many as you can in 20 mins.

1. *At the end of the year, how do you dispose of the calendar in your bedroom?*

2. *Once you've finished a bottle of detergent after doing laundry, how do you dispose of it?*

3. *How and where do you dispose of junk mail?*

4. *How do you dispose of toilet paper roll in the bathroom?*

5. *How do you dispose of paper bags that you get from grocery store?*

6. *Once you've finished a can of soda in the living room, how do you dispose of it?*

7. *An unfinished jug of cream cheese goes bad in the fridge, how do you dispose of it?*

8. *You just unwrap a gift from a friend, how do you dispose of the wrapping paper?*

Section Four: Recycling challenges (20 mins)

Please describe a situation when recycling is challenging for you. Why is it difficult? What are factors stopping you from recycling? What resources would help you overcome these difficulties?

Section Five: Waste sorting at home (25 mins)

For interviewers: This section should happen in the main waste disposal area at home (most likely in the kitchen.) We will be focusing on items from three categories: recyclables in recycling, non-recyclables in recycling, and recyclables in the garbage. You will be picking up one or two items from each category and asking the question.

Please tell us the story of this item, from purchase to disposal.

1. *Recyclables in recycling: _____ (fill in the name of the item)*

2. *Recyclables in recycling: _____ (fill in the name of the item)*

3. *Non-recyclables in recycling: _____ (fill in the name of the item)*

4. *Non-recyclables in recycling: _____ (fill in the name of the item)*

5. *Recyclables in garbage: _____ (fill in the name of the item)*

Section Six: Recycling perception (20 mins)

To finish our interview, we want to hear from you about what you think happens to recyclables and talk about what actually happens to recyclables after they are picked up from your curbside bin.

1. *After waste is picked up by your hauler, where do you think these materials go? Please describe the place.*

-
-
2. *If you could design the ideal way to process waste after it is picked up by the hauler, how would you design it? Please describe the situation.*

-
-
3. *On a scale of 1 – 5 with 5 being the most positive, how would you rate your community’s performance in handling waste in Snohomish County? Why?*

-
-
4. *On a scale of 1 – 5 with 5 being the most positive, how would you rate your performance in handling waste? Why?*

-
-
5. *We would like to show you what really happens to recyclables once they are picked up at the curb. How do you feel about this process?*

-
-
6. *We would like to share with you a few tips based on what we have observed during the interview. Would you be interested in these recycling tips?*

For interviewers:

If the answer is yes, proceed to share what you’ve observed and tips of how to correctly recycling. After sharing, ask the participant *“How do you feel about the tips?”*

If no, go ahead to close the interview.

Appendix P: Recycling Process Visual



Appendix Q: Waste Container Pictures

Garbage Container









Recycling Containers











Appendix R: Door-to-Door Pictures

