



Use Food Well Research Survey and Qualitative Study

**Comprehensive Report
May 2024**

By PRR

For **The Washington Center for Sustainable Food Management**

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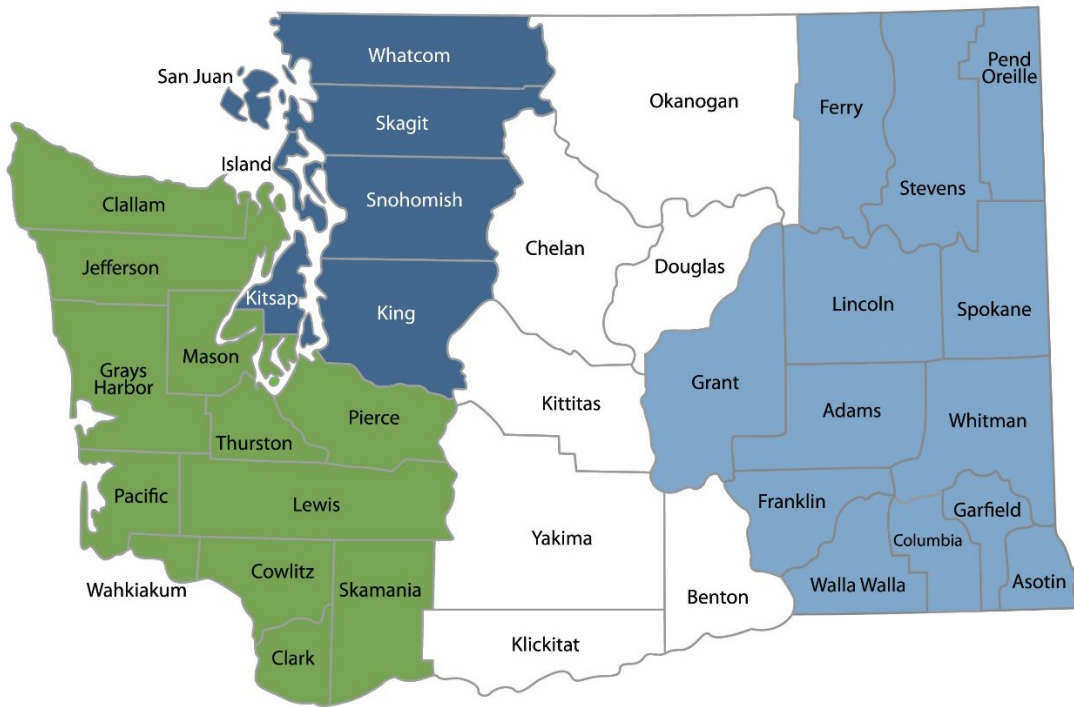
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DEPARTMENT OF
ECOLOGY
State of Washington

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Executive Summary

Overview

Purpose and goals

This report was authored by PRR Inc. with the support of Ecology staff. We have taken due care in the preparation of this report to ensure that all facts and analysis presented are as accurate as possible within the scope of the Study. This study researched how to best develop, implement, and manage an innovative public education and behavior change campaign with the goal of reducing food waste and food waste contamination in Washington State.

We studied food waste related behaviors and attitudes and motivations, identified campaigns and messaging strategies, identified primary and secondary priority audiences, and explored opportunities to involve agency partners.

Research approach: Mixed Methods

Ecology employed mixed methods for this project. We first conducted a quantitative survey with a random sample of 15,000 households throughout Washington. During random sampling, we oversampled in areas with high Environmental Justice Screen Index scores (details on page 12) to ensure we heard from a more representative sample of Washingtonians. We also used partnerships with community-based organizations (CBOs) to recruit for Spanish-speaking participants. The survey received 1,477 responses from July 19 to August 14, 2023.

Once the survey had concluded, we recruited from survey respondents to conduct an additional, online qualitative study. The study took place from September 13 through October 25, 2023, and included 104 participants.

Our participants were diverse in demographic characteristics such as age, gender, race and ethnicity, income, education, household size, and parental status. We found a wide range of perspectives on food waste.

Key Findings

- Half of participants in each study (52% and 54% respectively) were not concerned about food waste, but “saving money” was motivating and resonating for everyone (94% and 98%).
- Participants said that practical tips and convenient strategies would be helpful, especially related to storage, optimal organization, and creating flexible recipes to use up foods.
- Skills and knowledge related to food use come from cultural traditions, families, and upbringing.
- Participants expect institutions and businesses to work together with communities to reduce food waste.
- Participants suggested working with the next generation and young adults for both near-term and sustained long-term food waste reduction.

Recommendations

- Raise awareness about food waste among the public. Frame outreach campaigns with a focus on cost savings.
- Offer practical tips and easy to implement strategies in campaigns, including at grocery stores, on fridge magnets, via online tools, and in community spaces.
- Encourage exploration of people’s cultural and ancestral roots to learn traditional culinary skills and pass on food related wisdom to the next generation.
- Start initiatives that connect institutions, businesses, and communities to empower individuals and create momentum.
- Engage children in schools and young adults via social media to start a cultural shift.

Quantitative Survey

Main Findings

People discarded a variety of foods for different reasons.

The reasons people discarded foods included spoiling, made or bought too much, and past expiration date.

Most frequently discarded foods:

- Vegetables, fruits, and other leftovers: 18-23% of respondents discarded at least once a week, 36-42% discarded at least once a month
 - due to spoiling (40-65%) and made or bought too much (9-18%).

Less frequently discarded foods:

- Bread, dairy: 5-7% of respondents discarded at least once a week
 - due to spoiling (42-44%) and past expiration date (18-25%).
- Sauces: 5% of respondents discarded at least once a week
 - due to past expiration date (34%), and spoiling (25%)
- Meat and poultry: 7% of respondents discarded at least once a week
 - due to spoiling (34%), past expiration date (12%), and made or bought too much (10%).

A variety of strategies could be used to help consumers make foods last longer.

- Provide tips to improve storage in convenient ways such as in signage in produce aisles at the grocery store or a fridge magnet.
- Share tips for using up foods and using leftovers to make new dishes on fridge magnets and through online tools (website or apps).
- Promote labeling and then freezing food as an effective storage strategy.
- Provide "eat me first" reusable or compostable tapes or stickers to help with fridge organization to reduce spoiling.
- Promote a new habit of a weekly "use it up" day or meal.

Framing food waste as a waste of money resonated. Participants wanted to learn more about strategies to reduce waste.

What were people currently thinking and doing?

- Most participants (86-99%) were already taking steps to reduce food waste.
- Framing food waste as a waste of money resonated with most participants (96%).
- Framing food waste as damaging to the environment did not resonate with one-third of participants (32%).
- Participants who were concerned about food waste were more open to behavioral change strategies.

What were people willing to do next to reduce food waste?

- Most participants (76%) welcomed practical tips. They believed their actions could make a difference (81-84%).
- Participants wanted to learn more about improving storage and tips to use up foods in different ways.
- Participants valued convenient and easy steps such as better packaging at the grocery store (91%), storage tips where they shop (88%), and fridge magnets (75-77%).
- Participants welcomed educational campaigns to raise awareness (76-79%).

Participants with children wasted more food but were also more aware and open to learning more about reducing their waste.

Participants with children reported wasting more food in nearly all categories.

- They were more likely to be concerned about the amount of food they threw away, suggesting self-awareness.
- They were also more likely to be interested in a variety of different resources to reduce food waste.

They would like to receive resources that empower the next generation.

- Participants with children were interested in educational campaigns focusing on teaching grownups and kids to take care of the earth's resources.
- Participants with children were also interested in education programs organized by school districts focusing on reducing food waste.

Research Methods

Overview

Sampling

- We aimed to get a representative sample of adults in Washington state by using address-based random sampling in all counties in Washington. We sent mailers to 15,000 randomly sampled households in all WA census tracts.
- During random sampling, we oversampled in census tracts with a high [EJScreen](#) index score to ensure we heard from groups who have been often excluded from public decision-making and tend to be less likely to respond to government agency surveys. EJScreen was developed by the EPA to provide demographic, socioeconomic and environmental information per geographic area. A high EJScreen index score indicates a large minority population, with greater socioeconomic vulnerability.
- We also conducted a focused online panel for under-represented groups after the primary online survey closed, recruiting from the pool of survey respondents who expressed interest in participating.

Recruitment

Address-based sample survey recruitment

- We mailed an invitation and a reminder postcard in both English and Spanish to 15,000 households in Washington State. The survey fielded from July 19 to August 7, 2023.
- We held a drawing for ten \$100 gift card winners from the pool of survey participants as an incentive.

Additional outreach in Spanish with community-based organizations

- We also conducted Spanish language outreach through 3 community-based organizations and 12 community stores and restaurants to recruit Spanish-speaking participants to participate in the survey.

Online panel survey recruitment

- We conducted a paid online panel to prioritize specific groups that were underrepresented in the primary survey response pool. These included people who have children in the household; people without a college degree or higher; people who identify as Black, Indigenous, or people of color; and people who speak languages other than English at home.
- We fielded the panel survey online from August 7 to August 14, 2023. All panel participants who completed the survey were compensated directly by the survey panel vendor.

Who we heard from

- Overall, we received 1,477 valid responses to the online survey and panel.
- Address-based primary survey: 877 responses (52 in Spanish, 825 in English).
- Online-panel supplementary survey: 600 responses (all in English).
- Participants were diverse in gender, race and ethnicity, household size and composition, income, education level, and language(s) spoken at home.
- Participants were from all regions of the state (Figure 1)

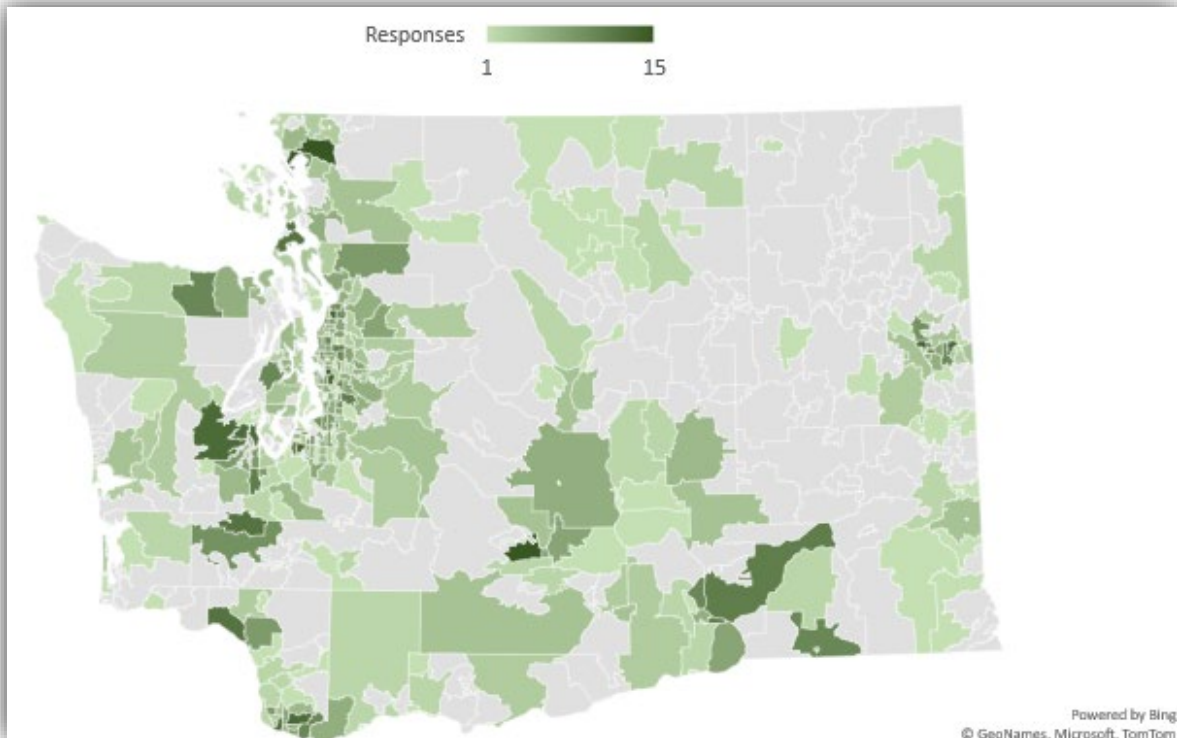


Figure 1. Survey participants' zip codes in Washington

**Darker shading indicates more participants live in that zip code.*

Almost everyone who participated was responsible for multiple food related household activities.

When asked what food related household activities they were responsible for, participants chose (they could check multiple answers):

- 94% Grocery shopping
- 92% Putting food into fridge, freezer, pantry, or other storage
- 91% Preparing meals at home
- 89% Disposing of garbage, recycling, and other waste
- 74% Ordering meals from restaurants
- 2% None of the above

Demographic profile

Age and gender

Age of the participants approximately follow a normal distribution as shown in Figure 2.

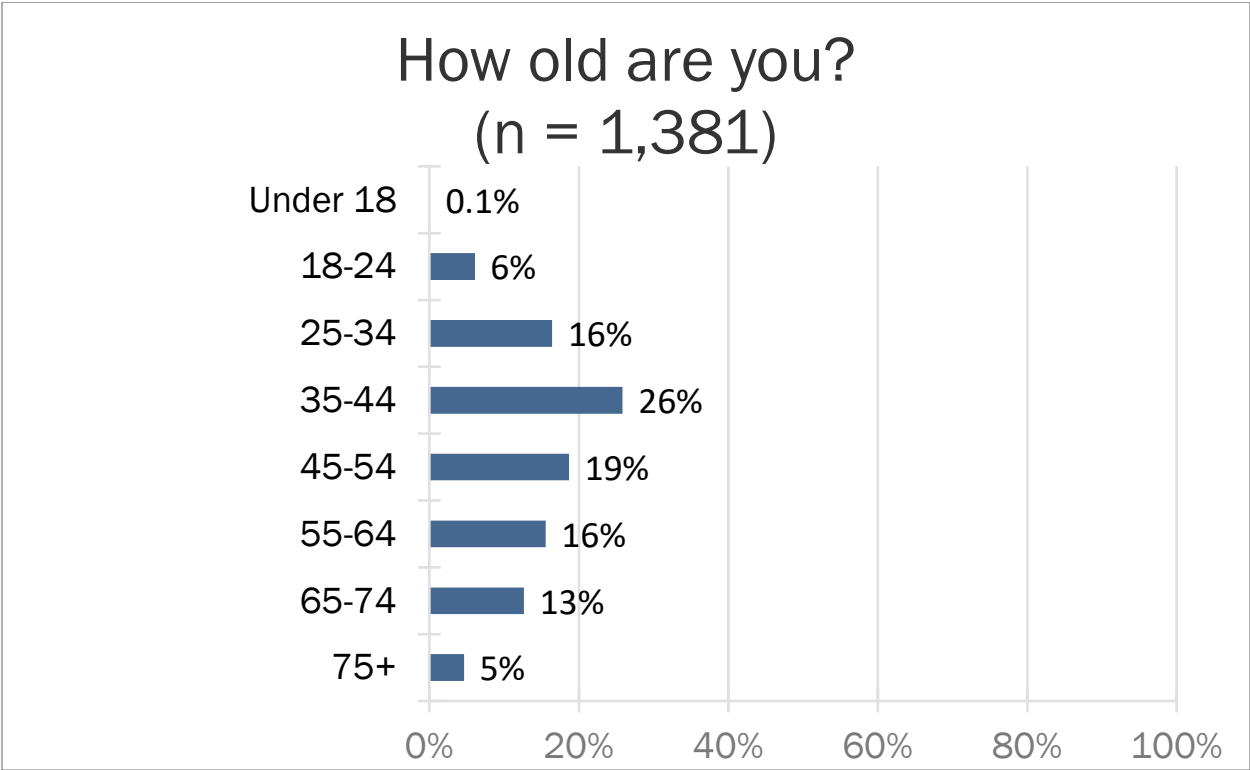


Figure 2. Age distribution of survey participants

More women than men participated in the survey (Figure 3). There was 1.3% of folks who identified as non-binary or gender(s) not listed here.

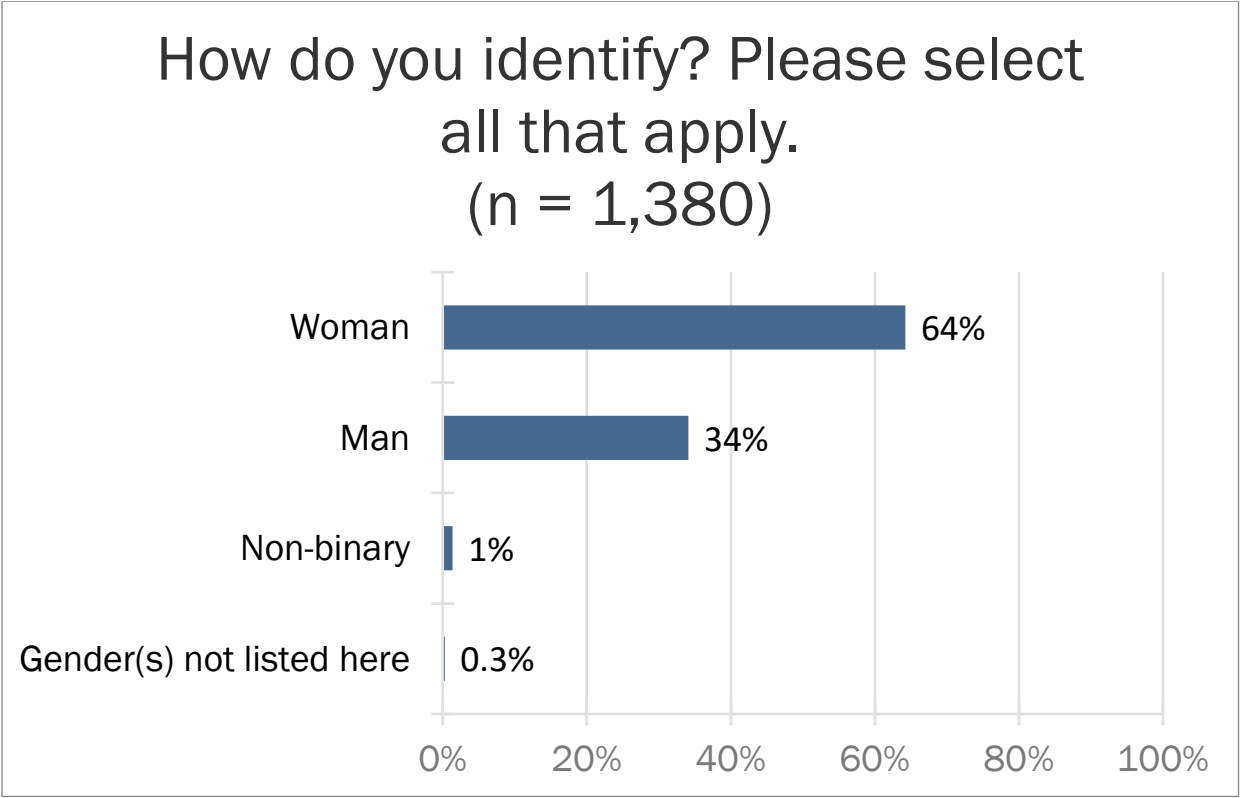


Figure 3. Gender of survey participants

Race and ethnicity, and language(s) spoken at home

Distribution of participants' race and ethnicity (Figure 4) is similar to Washington's census results.

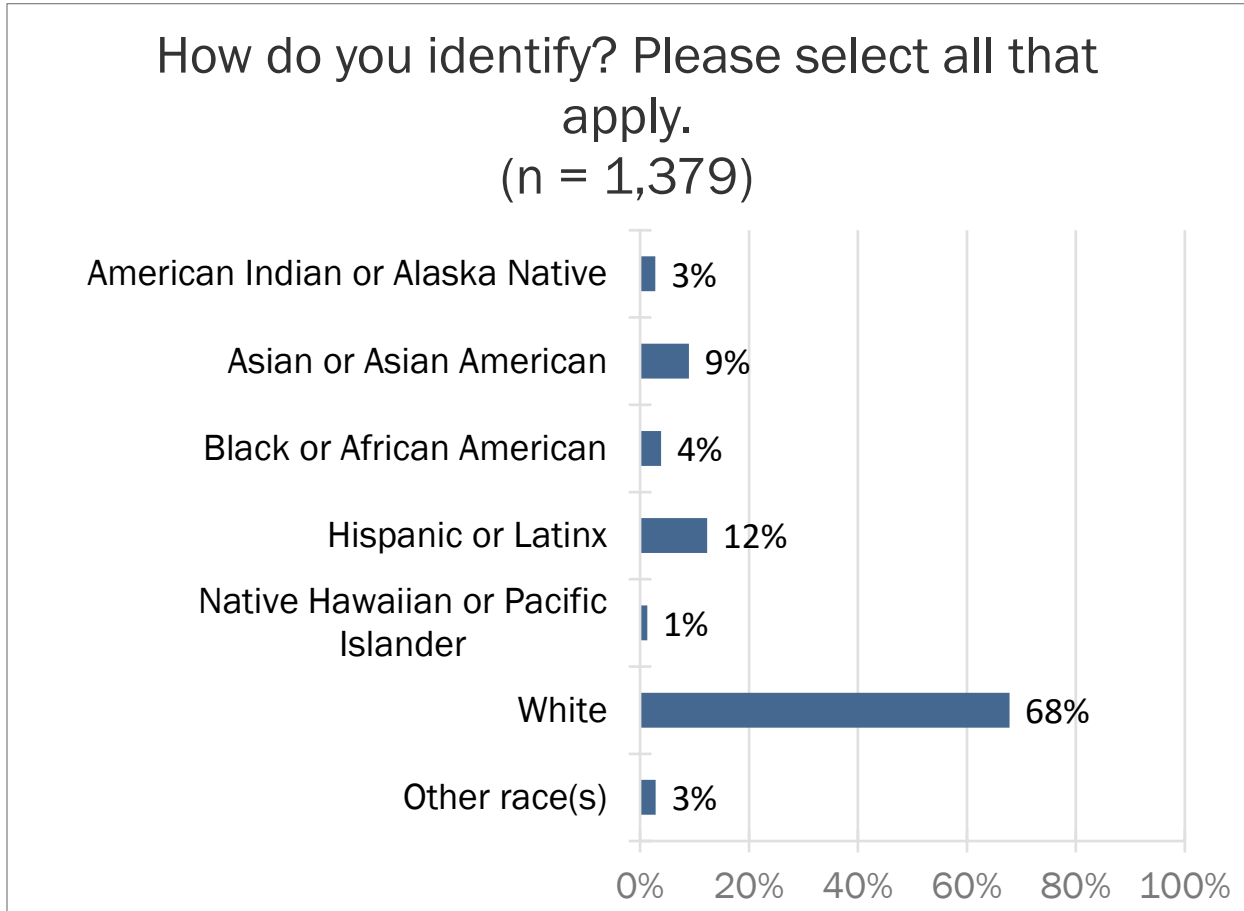


Figure 4. Race and ethnicity of survey participants

Figure 5 shows languages spoken by the participants at home. Other languages listed by participants include Arabic, American Sign Language (ASL), Bahasa, Caddo, Dutch, Estonian, French, German, Greek, Guamanians, Hindi, Italian, Latvian, Lingala, Mongolian, Norwegian, Persian, Portuguese, Punjabi, Romanian, Swedish, Swahili, Telugu, and Urdu.

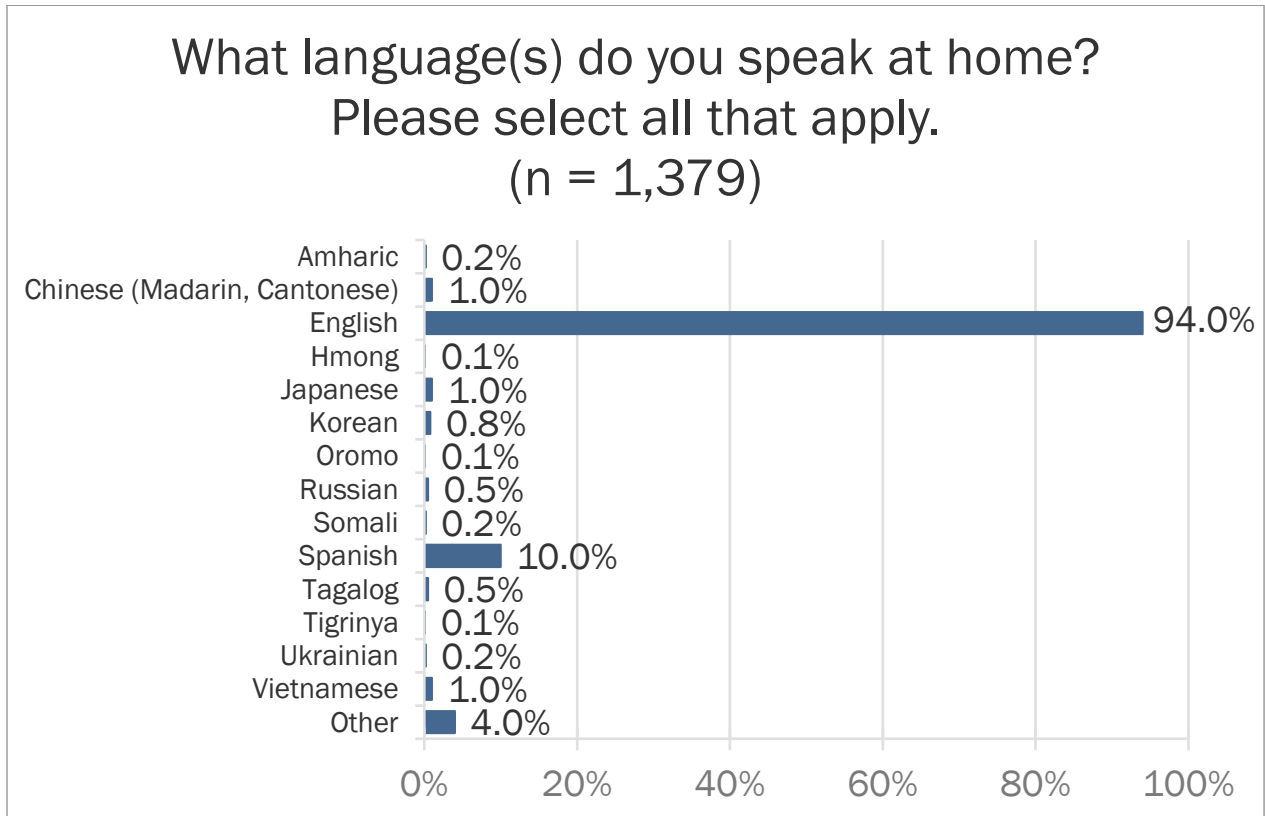


Figure 5. Language(s) spoken at home by survey participants

Income and Education

Our participants were spread out in income brackets as shown in Figure 6.

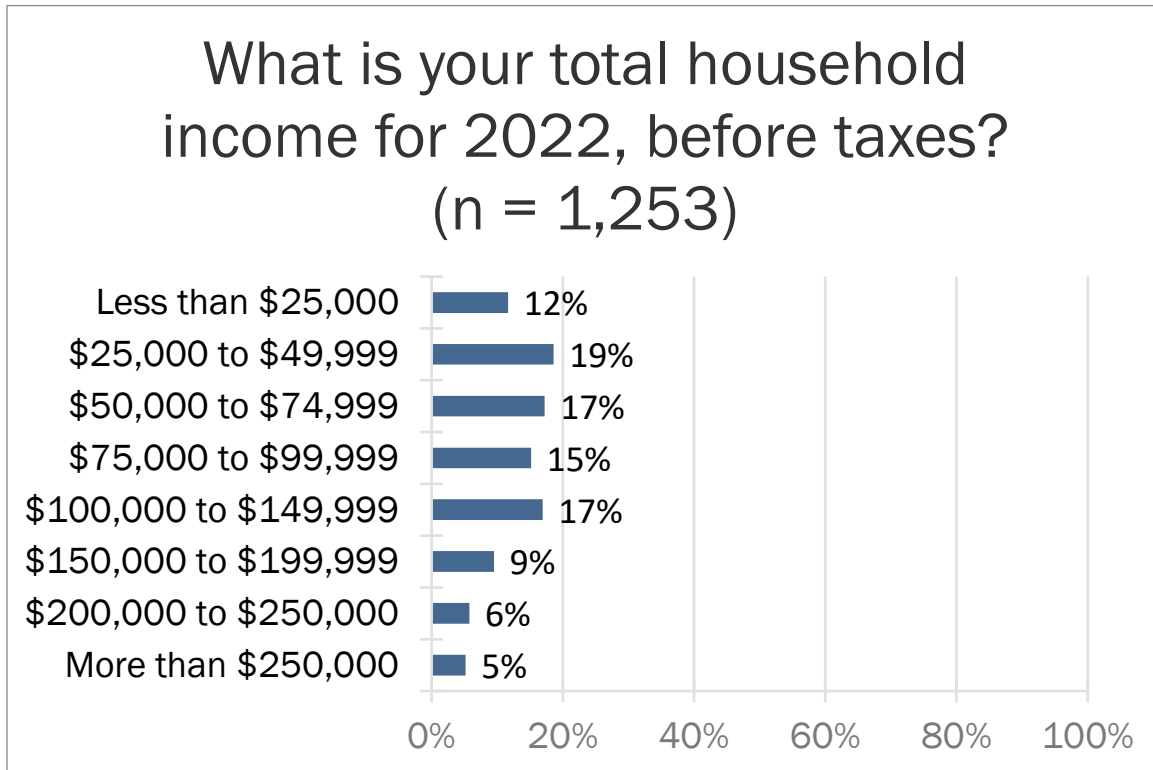


Figure 6. Total household income in 2022 of survey participants

Four nine percent of the participants had a college or higher education, but we also heard from participants without a college degree, as shown in Figure 7.

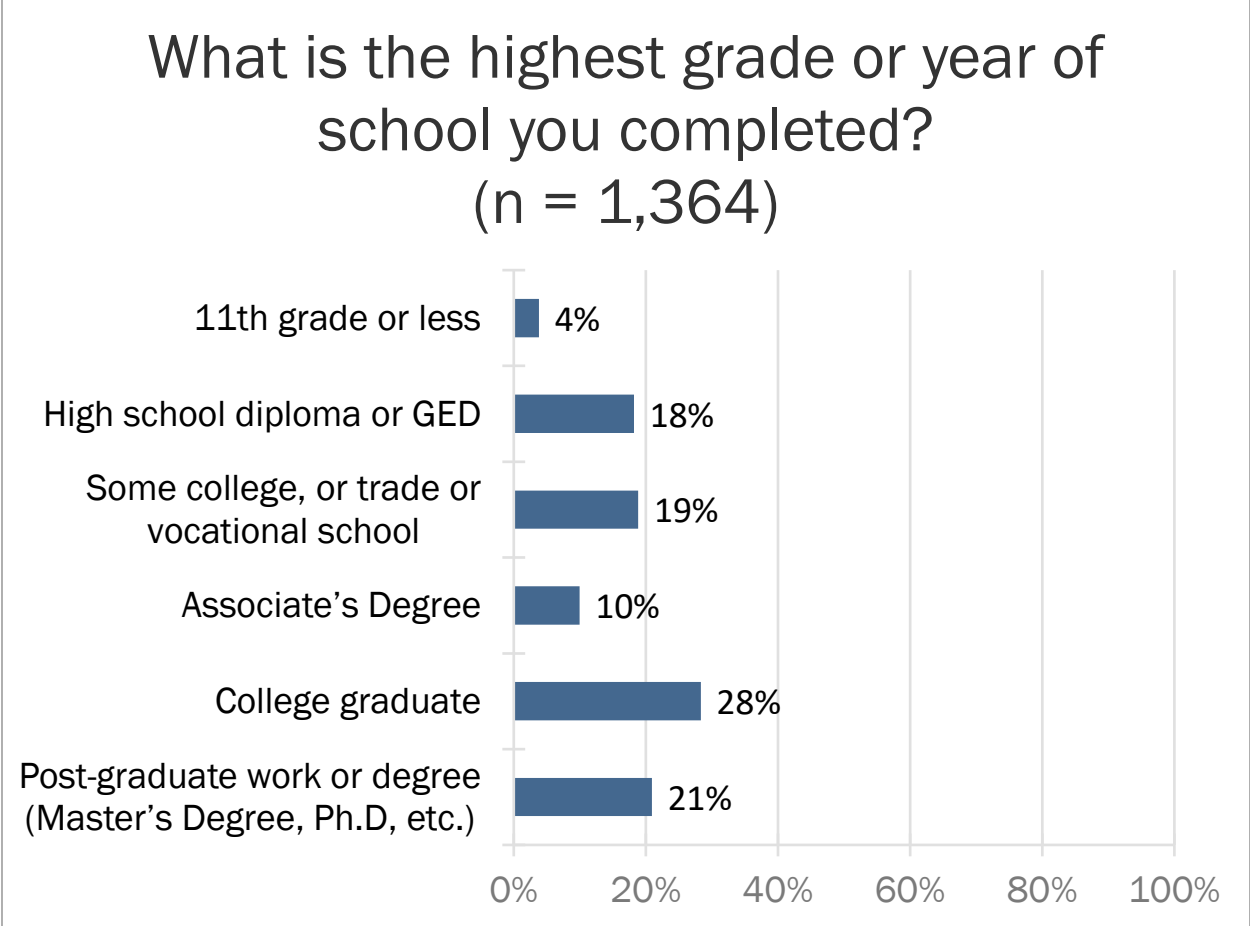


Figure 7. Highest level of education reported by survey participants

Number of children at home and household size

Figures 8 and 9 show 44% of participants had children at home and two-person households were the most common group.

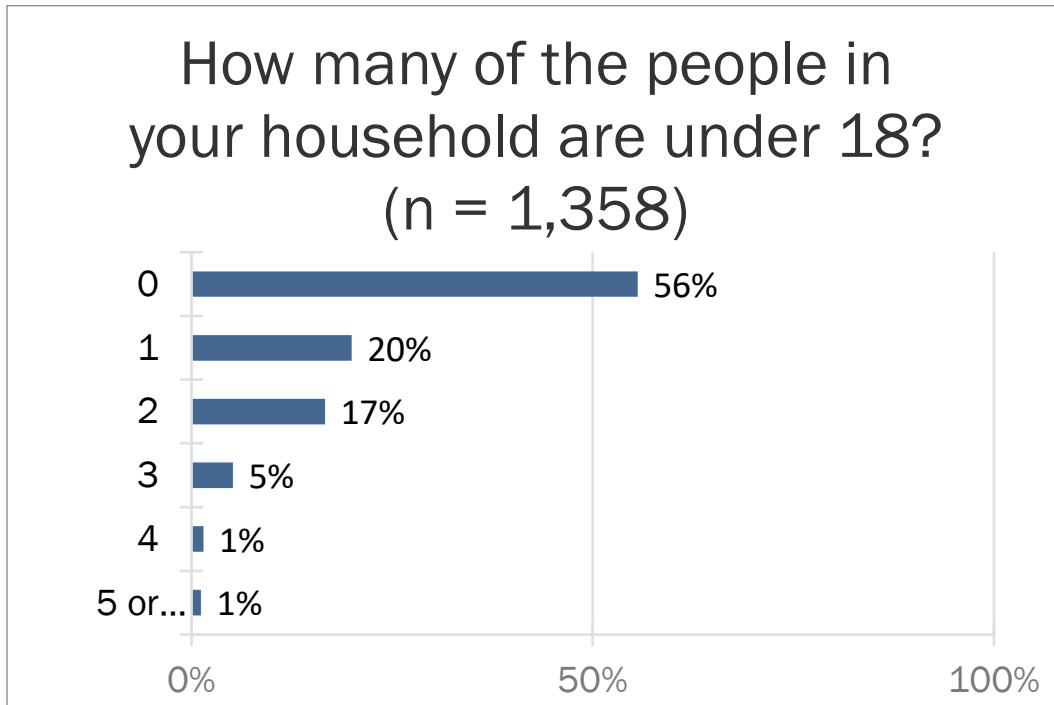


Figure 8. Number of children under 18 years of age in participant's household

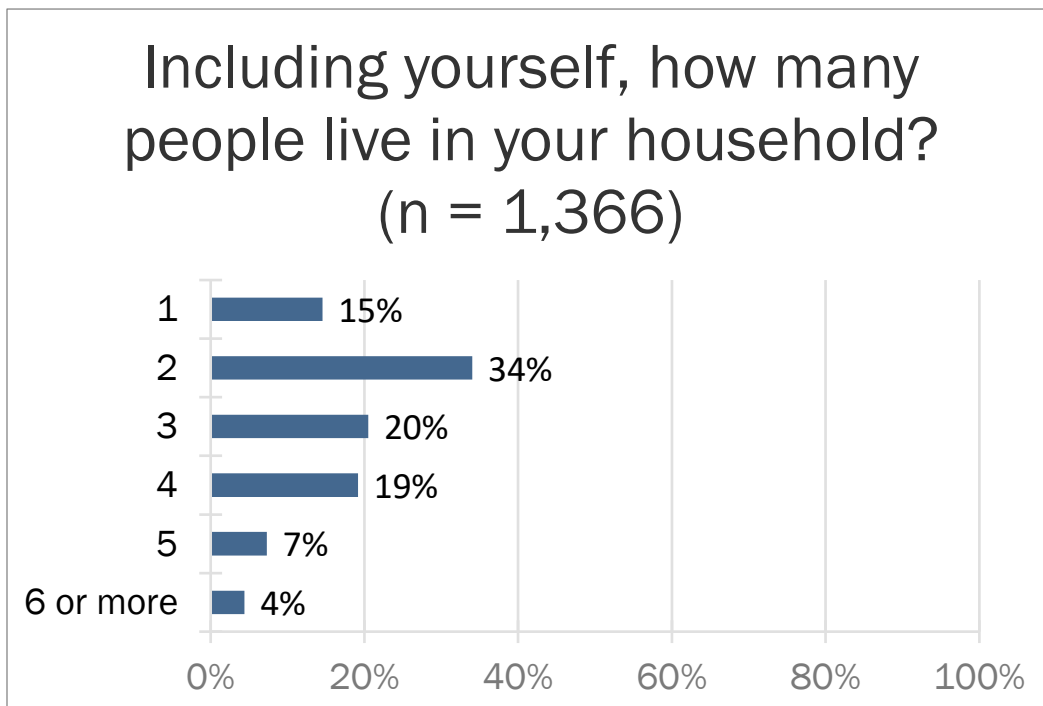


Figure 9. Total number of people living in participant's household

Detailed Results

Organization of the research questions

- Given the extensive information available in the literature and in online resources about food waste, we structured our research questions to gain a comprehensive understanding of the current landscape for our Washington population in order to gather insights to inform the outreach campaign (See Appendix A for survey questions).
- First, we asked about the types of food items being discarded, their frequency of disposal, and the reasons behind it (Figure 10).
- Next, we asked about participants' perception about their food waste and their current efforts in reducing food waste.
- Finally, we asked for suggestions on effective strategies and additional resources to help people reduce their food waste. Additionally, participants were asked to specify their preferred channels for receiving information related to food waste reduction and to recommend potential partners for our future campaign.

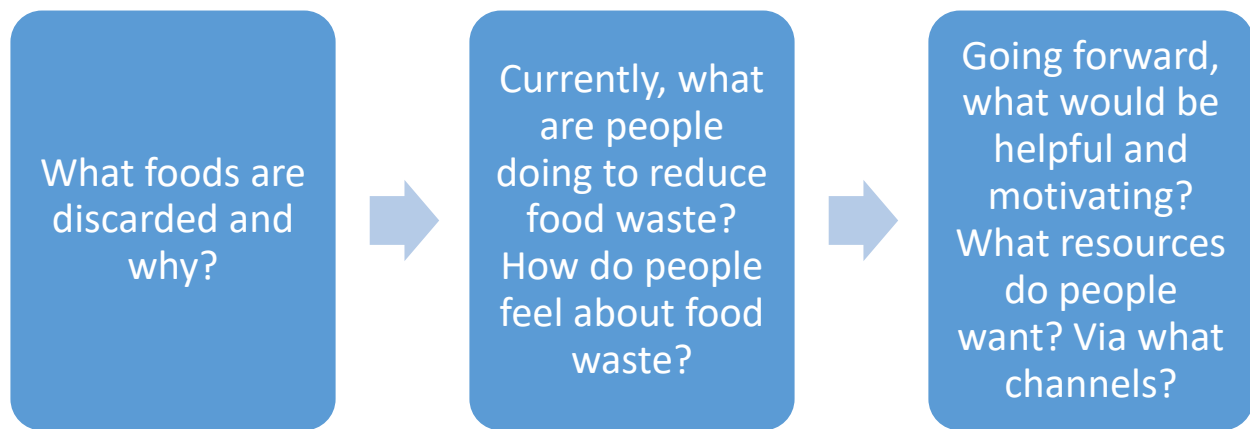


Figure 10. Flowchart describing the sequence of research questions

What items are discarded and why?

Vegetables and fruits were among the most frequently self-reported discarded food items, along with other leftover meals. Seafood, eggs, rice, and pasta are not discarded often.

Vegetables and fruits were the most frequently self-reported discarded food items, along with other leftover meals (Figure 11). Seafood, eggs, rice, and pasta are not discarded often. Participants with children consistently discarded all categories except seafood, meat, and poultry at a higher frequency compared to participants without children.

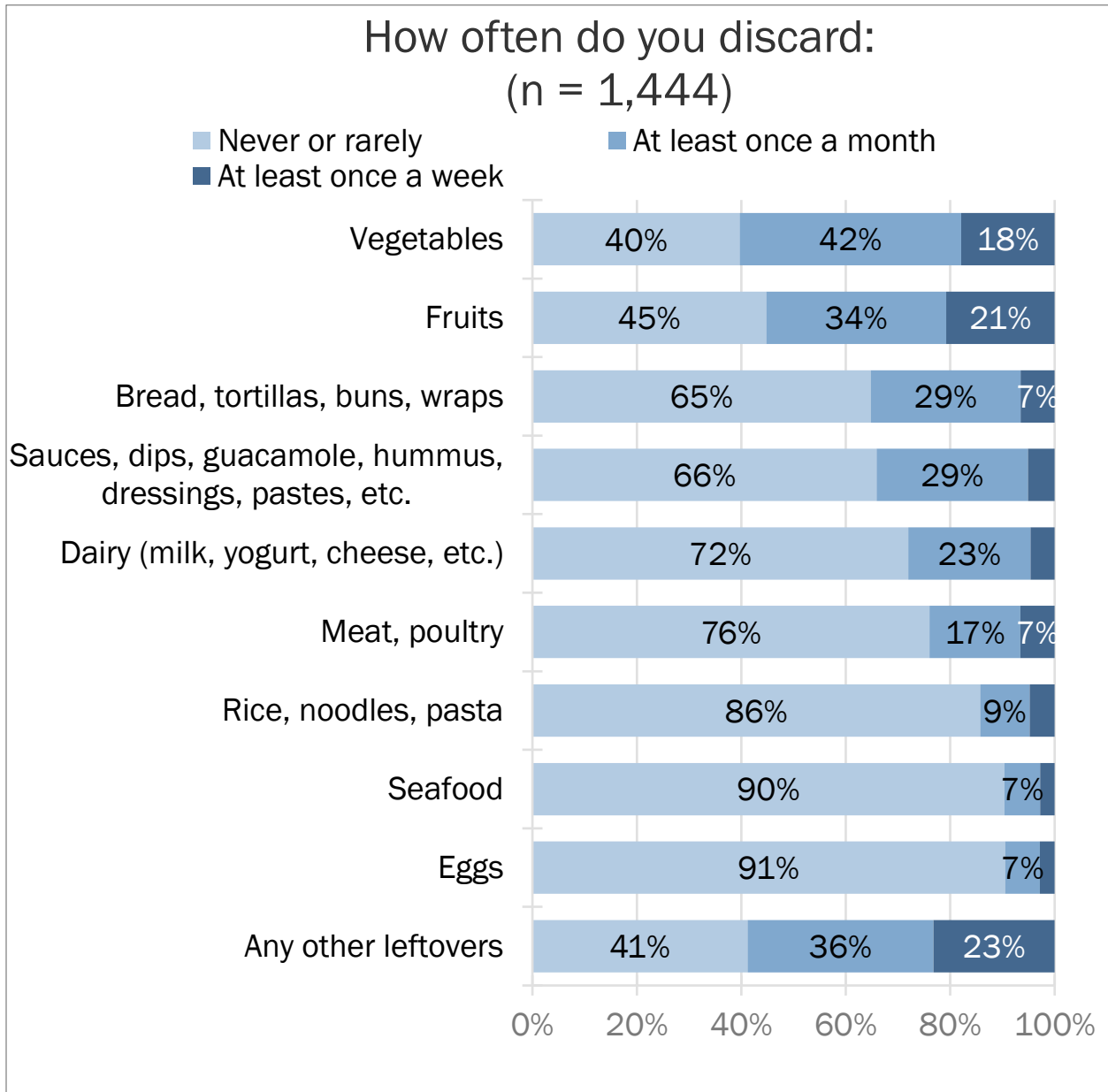


Figure 11. Frequency of discarding for different types of food

**Labels that are 5% or less were dropped from the chart above to save space.*

Spoiling was the most common reason participants reported that foods were discarded, followed by past expiration date, and made or bought too much (figure 12).

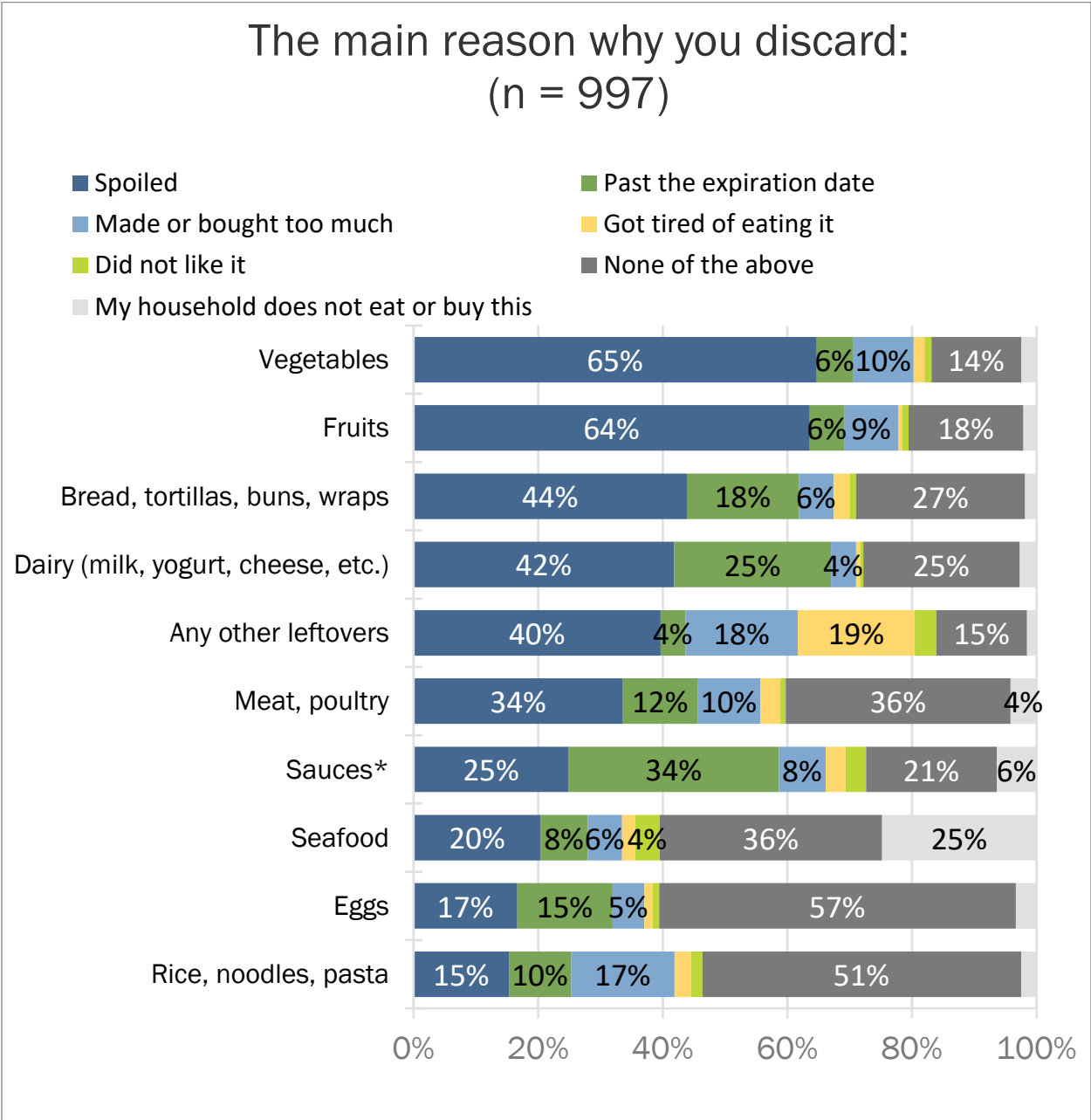


Figure 12. Main reasons why participants discarded food by type of food

*Sauces also include dips, guacamole, hummus, dressings, pastes, etc.
 *Labels that are smaller than 5% were dropped from the chart to save space.

Most foods commonly discarded can be saved by better storage, buying less, and prioritizing eating older food first.

Top reasons for discarding commonly discarded foods:

- **Vegetables and fruits:** spoiling and made or bought too much.
- **Any other leftovers:** spoiling and made or bought too much.
- **Bread, dairy:** spoiling and past expiration date.
- **Sauces:** past expiration date and spoiling.
- **Meat, poultry:** spoiling, past expiration date, and made or bought too much.

Even for rarely discarded foods, strategies such as tips to use leftovers in new dishes, tips for better food storage, prioritizing eating older food first and cooking less can be helpful.

Top reasons for discarding rarely discarded foods:

- **Eggs:** spoiling and past expiration date.
- **Seafood:** spoiling.
- **Rice, noodles and pasta:** made or bought too much, spoiled, and past the expiration date.

Current behaviors, attitudes and concerns related to food waste.

Overall, most people have already taken steps to reduce their food waste (Figure 13).

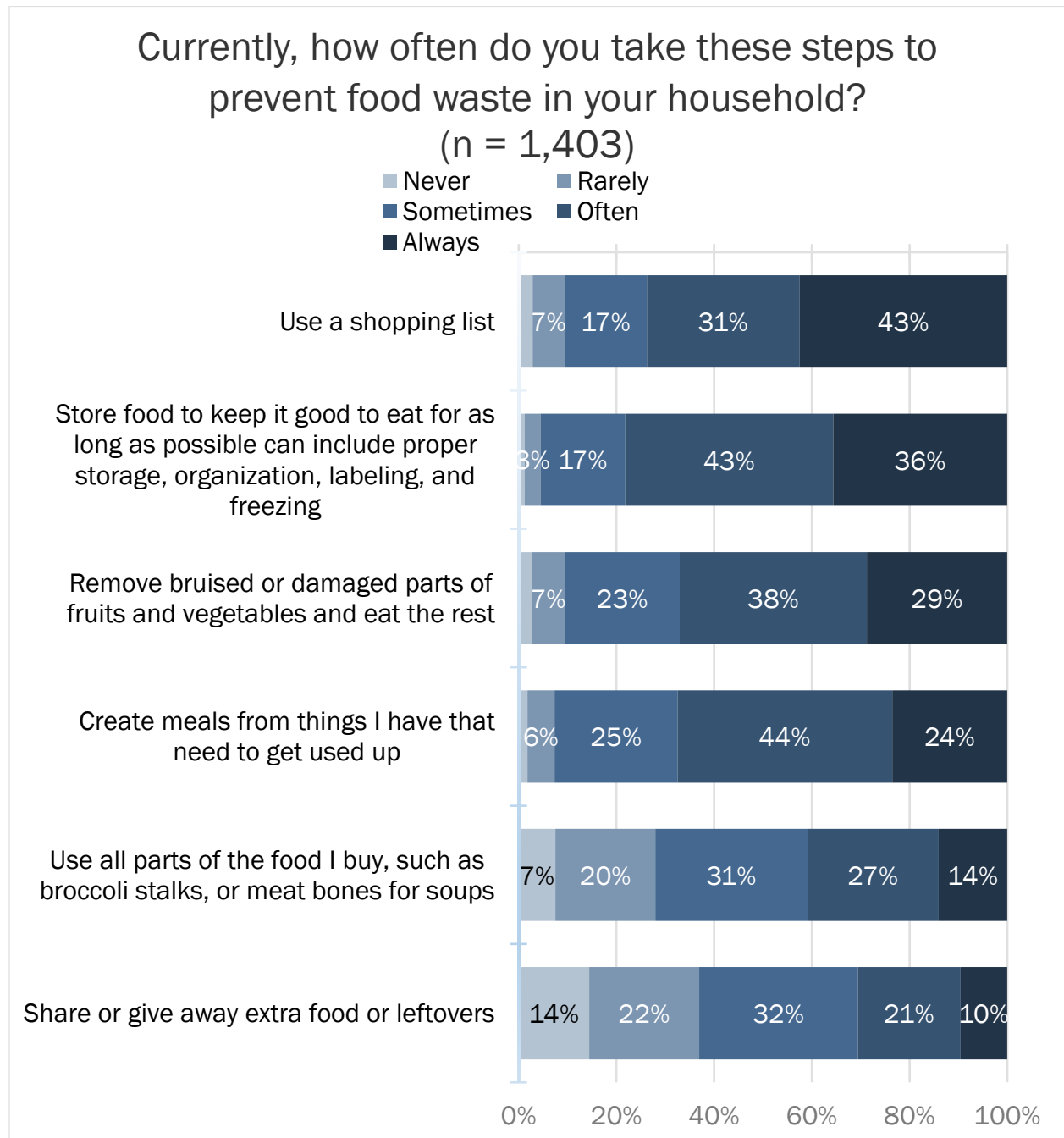


Figure 13. Frequency of how often people took specific steps or actions to reduce their household food waste

**Labels that are smaller than 5% were dropped from the chart to save space.*

Around half of participants (52%) said they were “not at all” or “not too concerned” about their food waste (Figure 14).

- Participants who identify as BIPOC (n=442) are more likely to be concerned than non-BIPOC participants.
- Participants with children (n=603) are more likely to be concerned than participants without children.

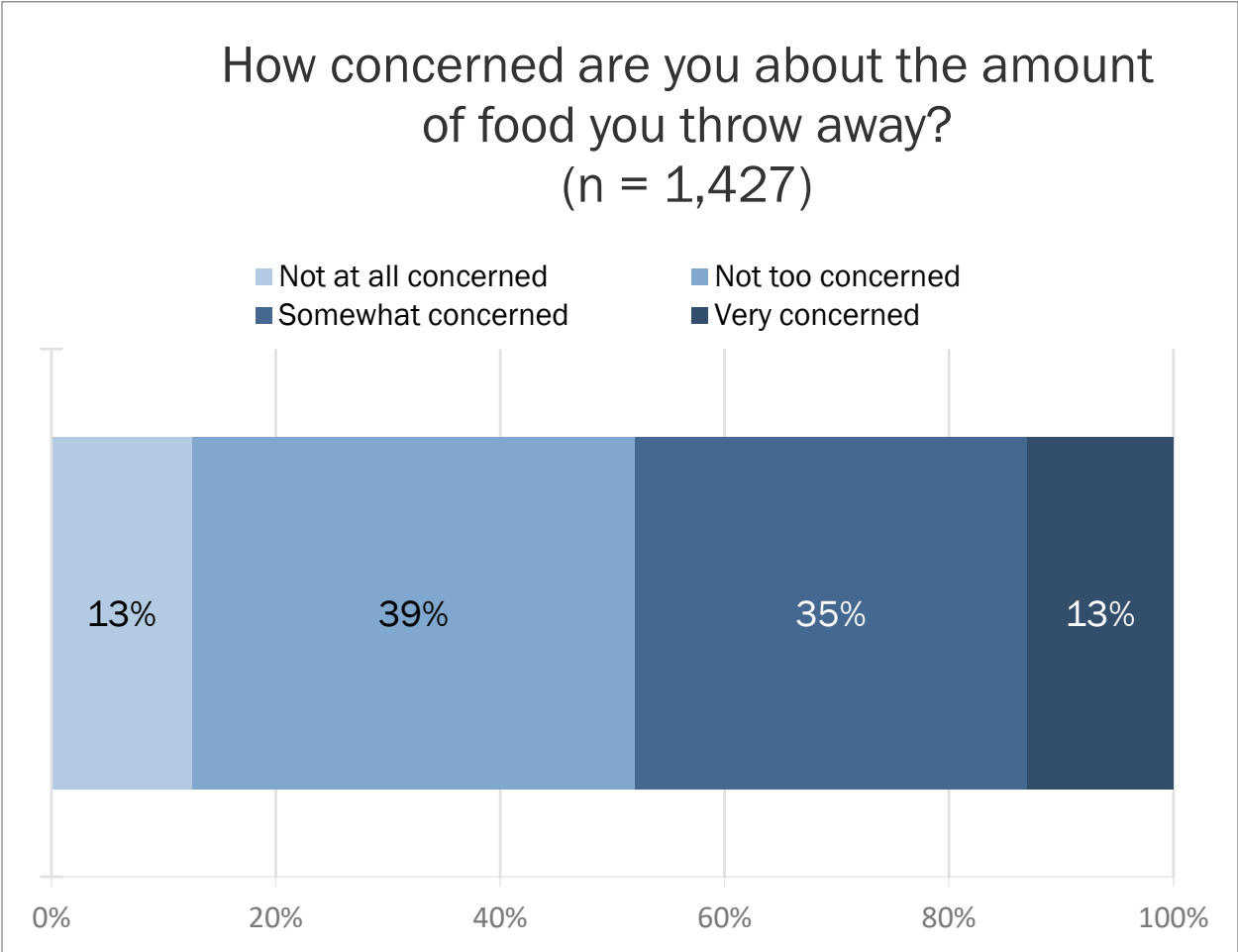


Figure 14. How concerned were participants about the amount of food they throw away

Most participants agreed that throwing away food was a waste of money. Most said they could reduce their waste and were open to practical tips and steps to reduce waste (Figure 15).

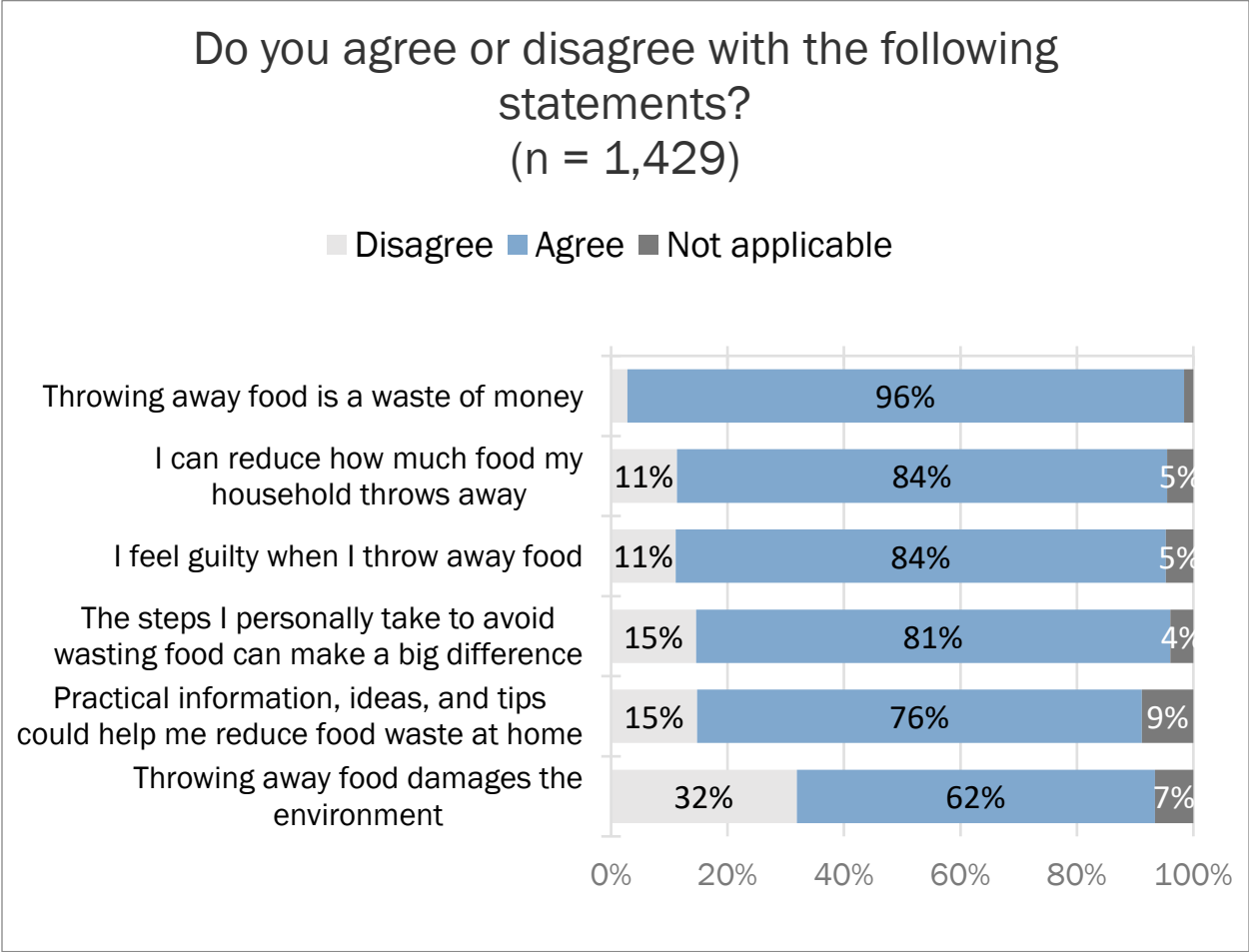


Figure 15. Participants’ agreement or disagreement with 6 statements describing various sentiments and behaviors related to food waste

**Labels that are smaller than 6% were dropped from the chart to save space.*

Having children at home, BIPOC identity, educational level, and income were related to people’s attitudes on food waste (Table 1).

Table 1. Correlations among different groups and attitudes on food waste

Significantly more likely to agree with the following statement (significant at p<0.01)	Participants with children	Participants who identify as BIPOC	Participants with college or higher degree	Participants with lower income (< 60% WA state median)
Throwing away food damages the environment.			X	
I can reduce how much food my household throws away.	X	X	X	
The steps I personally take to avoid wasting food can make a big difference in our society.			X	
I feel guilty when I throw away food.	X			
Practical information, ideas, and tips could help me reduce food waste at home.	X	X		X

Participants concerned about food waste (48%) were more open to strategies and tips to reduce food waste.

Concerned participants were more likely (p<0.01) to agree with the following statements, compared to participants who were not concerned about waste:

“Throwing away food damages the environment.”

“I can reduce how much food my household throws away.”

“The steps I personally take to avoid wasting food can make a big difference in our society.”

“I feel guilty when I throw away food.”

“Practical information, ideas, and tips could help me reduce food waste at home.”

This suggests that raising awareness is a key step in the campaign to motivate behavioral change.

Resources and Interests

Tips to improve food storage were the most helpful resource, as shown in Figure 16. Reducing grocery bills and making food last longer were both motivating for many participants (Figure 17).

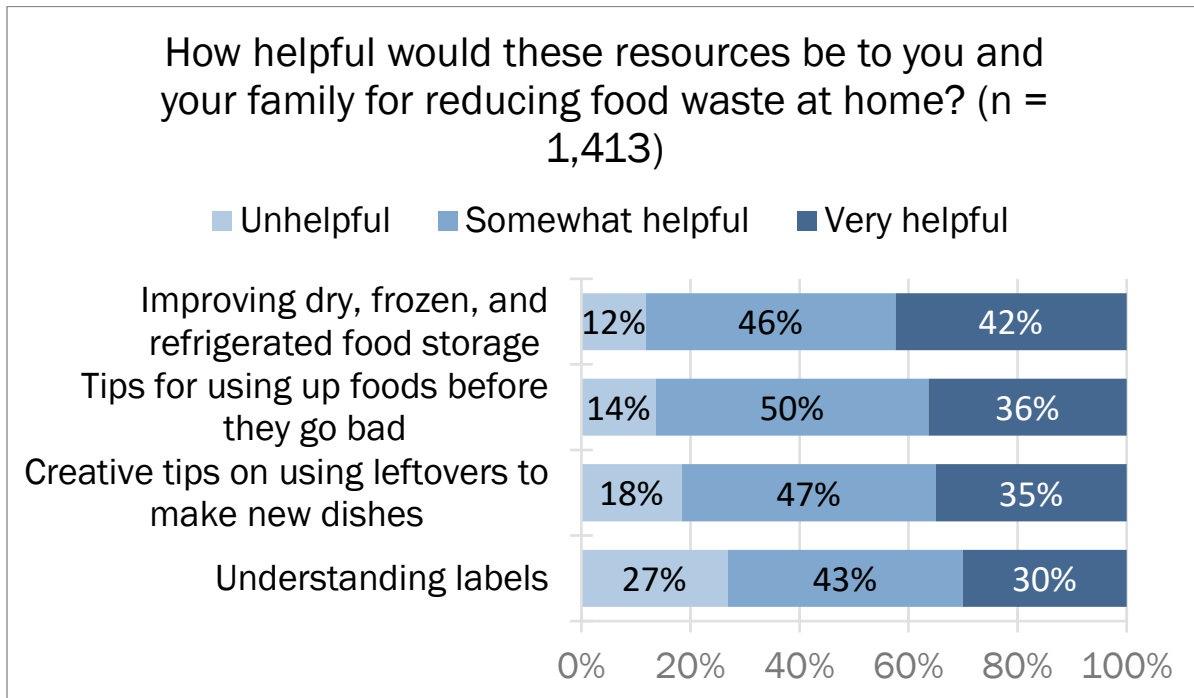


Figure 16. Level of helpfulness of different strategies to reduce food waste

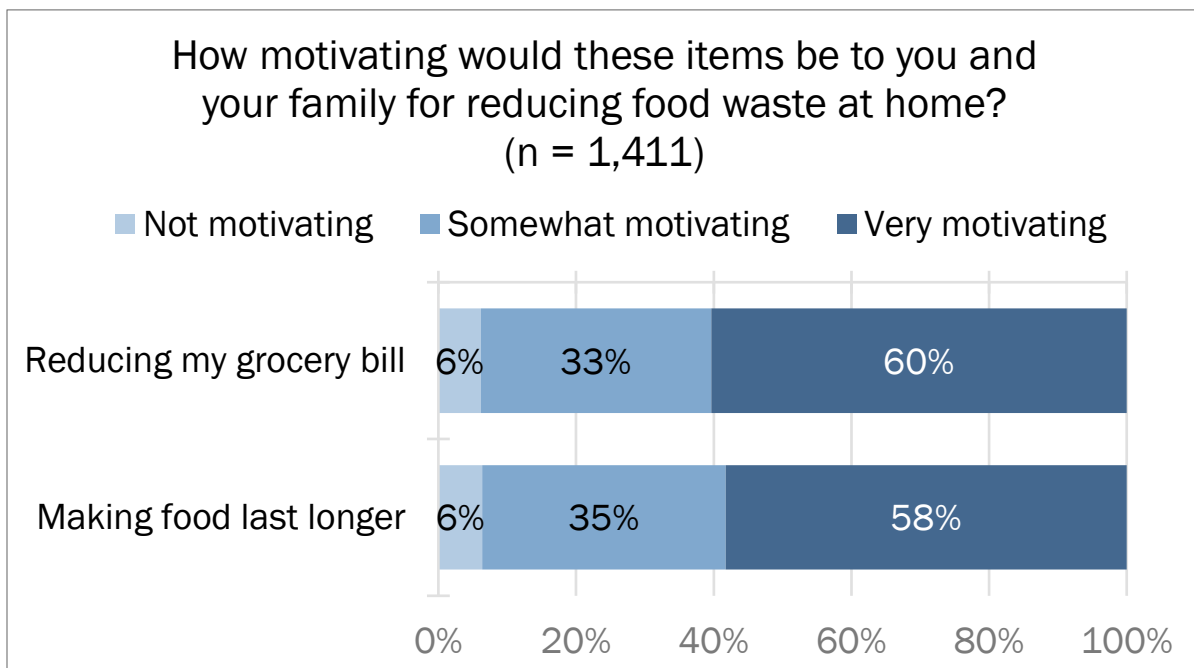


Figure 17. Participants rated how motivating two incentive statements are for reducing food waste

Participants wanted strategies for storing food to extend freshness, creating meals from foods that need to be used up, and using all parts of the food they buy (Figure 18).

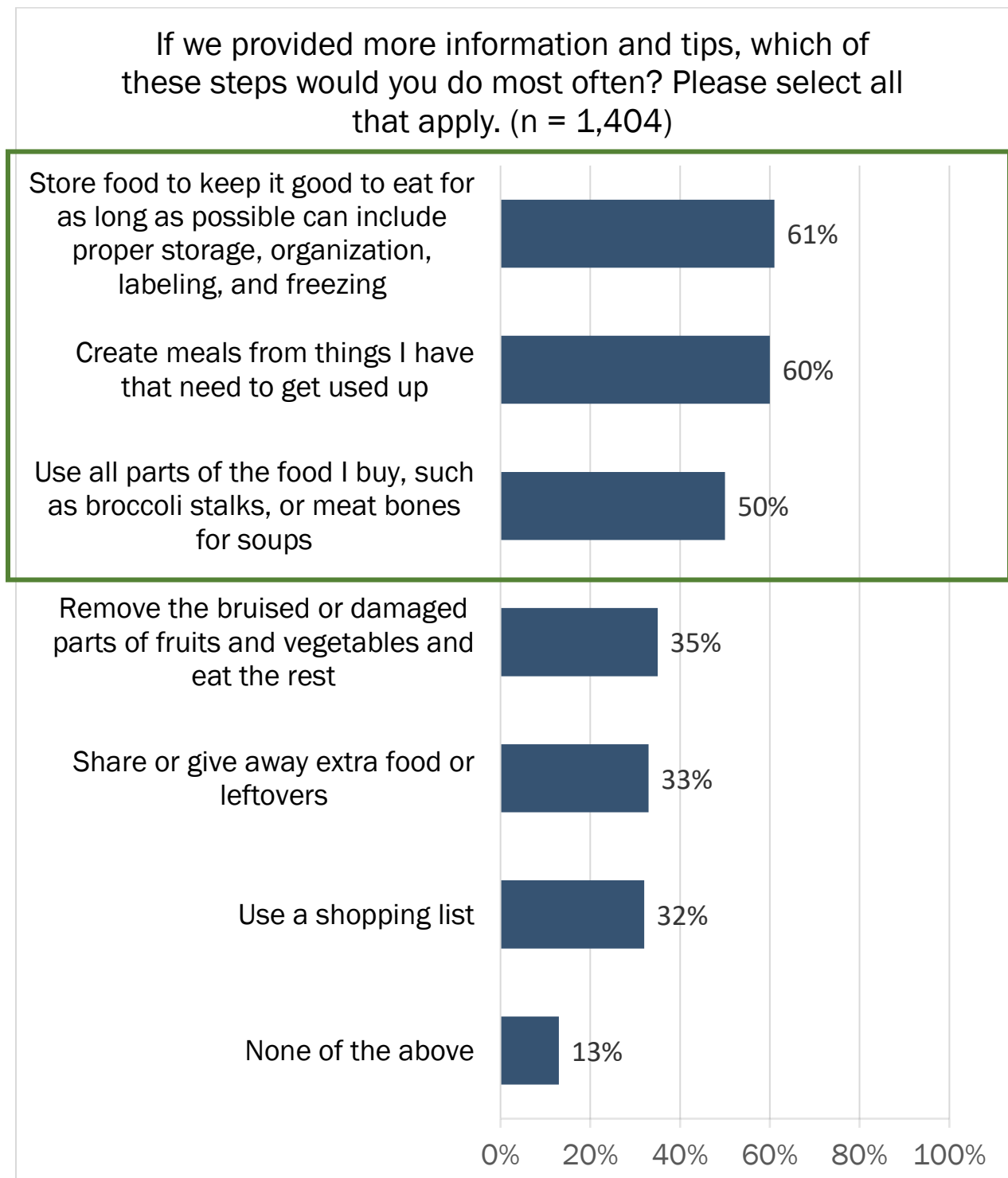


Figure 18. Participants rated which strategies they are more likely to do more often (if given more information) to reduce food waste

Participants expressed the most interest in stay-fresh-for-longer packaging and storage tips in grocery stores (Figure 19).

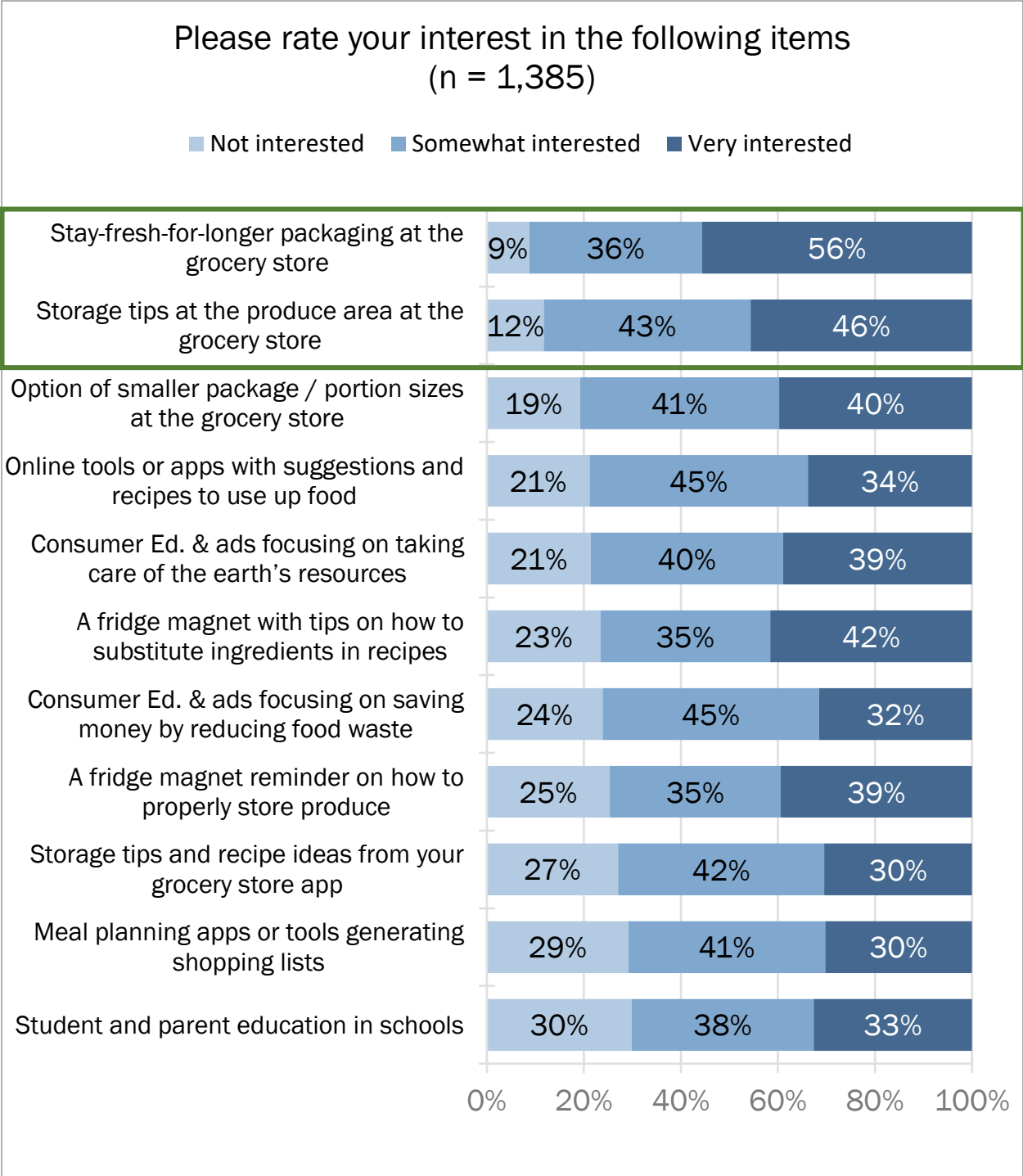


Figure 19. Participants rated their level of interest in eleven different tips/strategies for reducing food waste

**Regarding the last item, participants with children are significantly more interested in student and parent education in schools compared to participants without children.*

Participants with children were more likely to be interested in the following resources:

- Meal planning apps or tools for generating shopping lists.
- Online tools or apps with suggestions and recipes to use up food.
- A fridge magnet reminder on how to properly store produce to make it last longer.
- A fridge magnet with tips on how to substitute ingredients in recipes.
- Storage tips in the produce area at the grocery store.
- Storage tips and recipe ideas from grocery store apps.
- Consumer education and ads focusing on teaching adults and children to take care of the earth's resources.
- Student and parent education in schools.

Almost half of all participants preferred to receive information about reducing food waste from a website or by email (Figure 20).

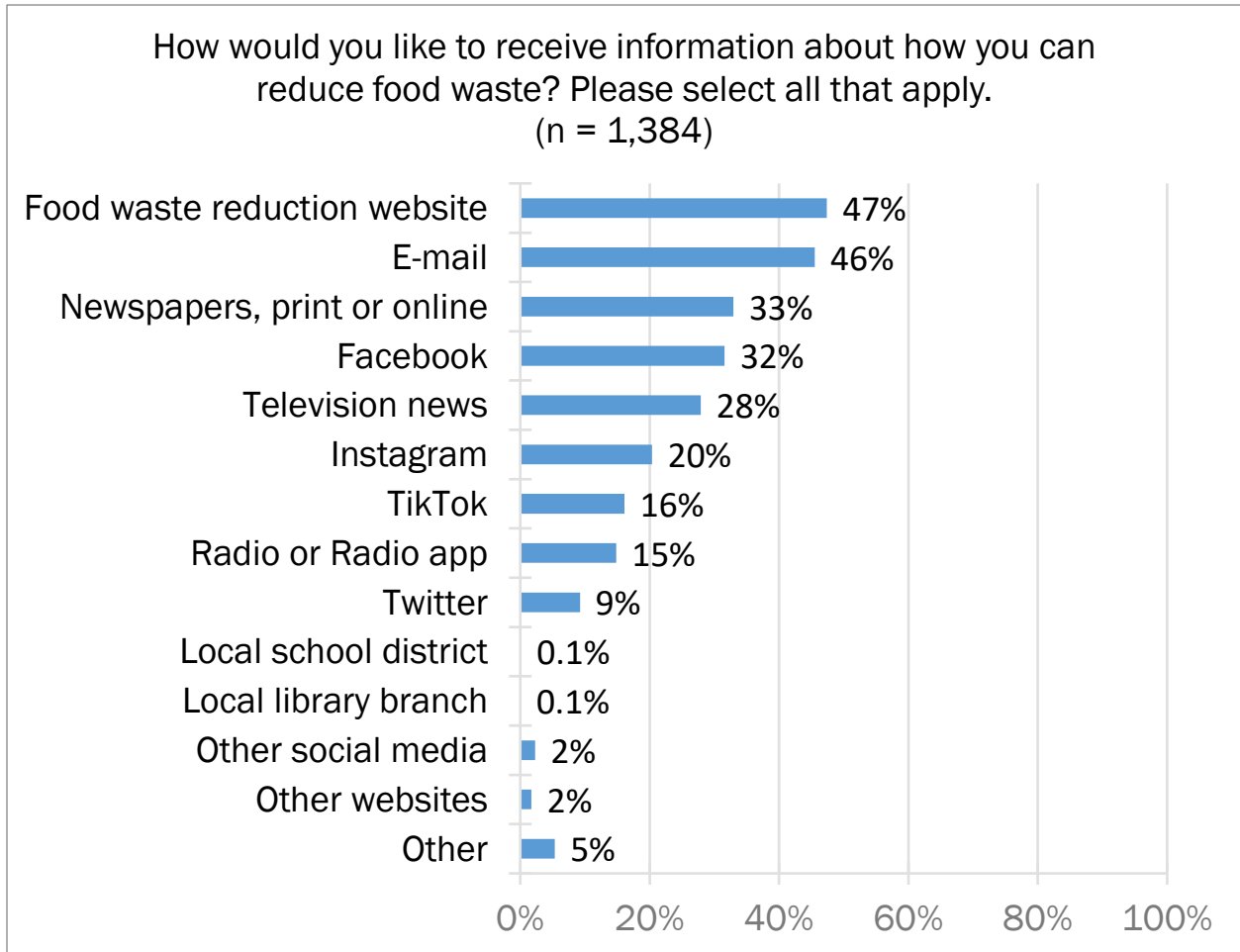


Figure 20. Participants' preference for communication channels to receive information

Many different channels exist to communicate with people across multiple ages (Table 2).

- Age groups between 18-44 were considered priority groups, at least 25% of each of these groups listed the following in the top 5 preferences: Email, Website, Facebook, Instagram, Newspaper, TV.
- All of these, with the exception of Instagram, worked for older groups as well.
- Additional top preference for 18-24: TikTok.

Table 2. Top five preferences for communication channels by different age groups

Age Groups	Top 5 preferences (from left to right)				
18-24 (n=82)	TikTok (59%)	Instagram (44%)	TV (43%)	Website (33%)	Email (32%)
25-34 (n=223)	Email (52%)	Website (48%)	Facebook (41%)	Newspaper (38%)	Instagram (37%)
35-44 (n=354)	Email (51%)	Website (44%)	Facebook (34%)	Newspaper (30%)	Instagram (25%)
45-54 (n=253)	Email (56%)	Website (49%)	Facebook (41%)	Newspaper (31%)	TV (29%)
55-64 (n=206)	Website (55%)	Email (40%)	Facebook (30%)	Newspaper (30%)	TV (29%)
65-74 (n=170)	Website (51%)	Newspaper (42%)	Email (39%)	TV (31%)	Facebook (20%)
75+ (n=62)	Website (60%)	Newspaper (47%)	TV (31%)	Email (27%)	---

Qualitative Study

Main Findings

Participants cared about the issue of food waste and would like to see an increase in awareness about the topic.

What we heard

- Participants shared that they cared about environmental issues, healthy eating, and serving their communities.
- Most had a busy schedule and welcomed convenient or easy solutions.
- Most felt they were already making some effort to reduce food waste but were open to doing more.
- Participants reported that learning about the cost of food waste is especially motivating.
- Participants reported increased awareness after participating in this study.

Our recommendations

- Increase Washingtonians' awareness of the issue through campaigns and programs.
- Frame campaigns in terms of cost savings.
- Provide practical tips and easy to implement strategies, such as providing storage tips at the grocery store, and including tips on how to use up foods through creative recipes shared via online tools or apps.

Participants reported successes and challenges in planning, shopping, and cooking.

What we heard

- Many participants had already worked to reduce waste by using a shopping list. However, overbuying through large packages or discounts and impulse purchases were also common.
- Cooking at home offered health benefits but could add stress to busy schedules.
- Many participants would like to improve their ability to cook with more flexible recipes. Some participants who grew up in traditional cultures noted being more comfortable with flexible cooking based on available ingredients.

Our recommendations

- Tailor campaign for people with busy schedules.
- Offer easy to use tools or apps to help with planning and creating flexible recipes.
- Increase awareness about how much money can be saved by avoiding overbuying and impulse purchases.
- Encourage people to embrace traditional food practices from their cultural heritage(s) and learn meal planning and flexible cooking skills in the process.

Participants asked for tips to improve food storage and wanted to learn more about composting.

What we heard

- Although participants already thought about properly storing foods, they were open to tips on how to improve further.
- Many already composted (and recycled clean packaging containers) or fed food waste to animals. Participants welcomed more access to information about composting.
- The issue of food waste was most salient during disposal.

Our recommendations

- Offer practical tips and tools on how to optimize storage and organize the pantry and fridge (e.g. putting perishables in easier to see and clearly marked locations).
- Increase access to composting and awareness when possible (e.g. community-based composting, curbside pickup).
- Use the strong emotions associated with wasting food as a motivating factor to raise awareness and motivate behavioral change.

Participants suggested Ecology work with the next generation and involve institutions.

What we heard

- Families with young children reported wasting more food and that reducing waste was challenging.
- Families with young children were interested in education programs specifically developed for younger audiences.
- Some participants were not confident that their personal efforts would have any major impact.
- Some participants felt it was unfair to only ask individuals to reduce waste and felt that the onus should fall more strongly on businesses and institutions.
- Some participants suggested social media campaigns as a good way to promote messaging around reducing food waste.

Our recommendations

- Consider programs or campaigns that focus on empowering both grownups and children to reduce food waste to initiate a cultural shift.
- Emphasize what businesses and institutions are doing to help play a role in reducing food waste by highlighting success stories.
- Instill a sense of community working together.
- Take advantage of social media and online platforms to engage the next generation and raise awareness.

Research Methods

Overview

Participant recruitment

- We wanted to have 100 people participate in the paid, in-depth study, and knew from experience that about half of the people we invited would participate. We invited 202 participants to join the qualitative study from a pool of 772 survey participants who expressed interest in joining a future study. 105 of them participated.
- The study fielded from September 13 to October 25, 2023. Participants completed the activities at their own pace in 4 to 6 weeks. There were 7 activities with open-ended questions, multiple choice or ranking, and photo upload tasks.
- We created a similar set of questions in Spanish and had the same study in a Spanish version for Spanish-speaking participants, as seen in the figure below.
- Out of 105 participants, 69 completed all the activities, shown in Figure 21.
- We compensated the participants \$25 per activity, up to \$200 per participant. We distributed \$16,380 in gift cards in total.

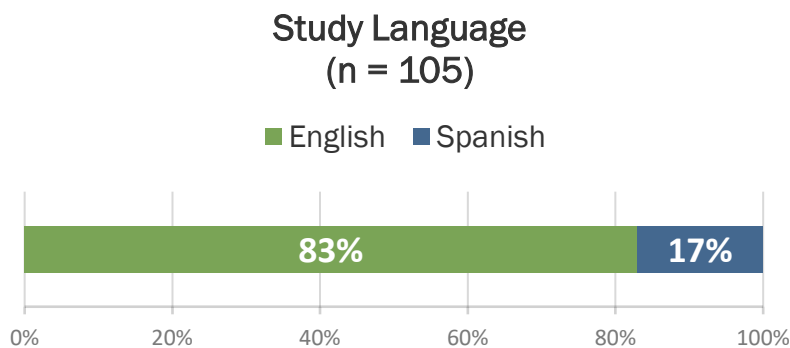


Figure 21. Number of participants per language in the qualitative study

Expenses

- Online qualitative research platform for a 6-week study cost \$6,500.
- Participant compensation in gift cards plus fee totaled \$16,380.

Table 3. Number of participants who were invited, signed up, completed at least one activity, and completed all activities, per study language

	Invited	Signed up	Completed Activity 1	Completed all activities
English	162	96 (100%)	87 (91%)	61 (64%)
Spanish	40	24 (100%)	18 (71%)	8 (33%)

* There were three participants who were invited to participate in the Spanish study but requested to switch to the English version.

Demographic profile

Age and Gender

Age groups that had the highest number of participants were 35-44, 45-54 and 25-34, as shown in Figure 22.

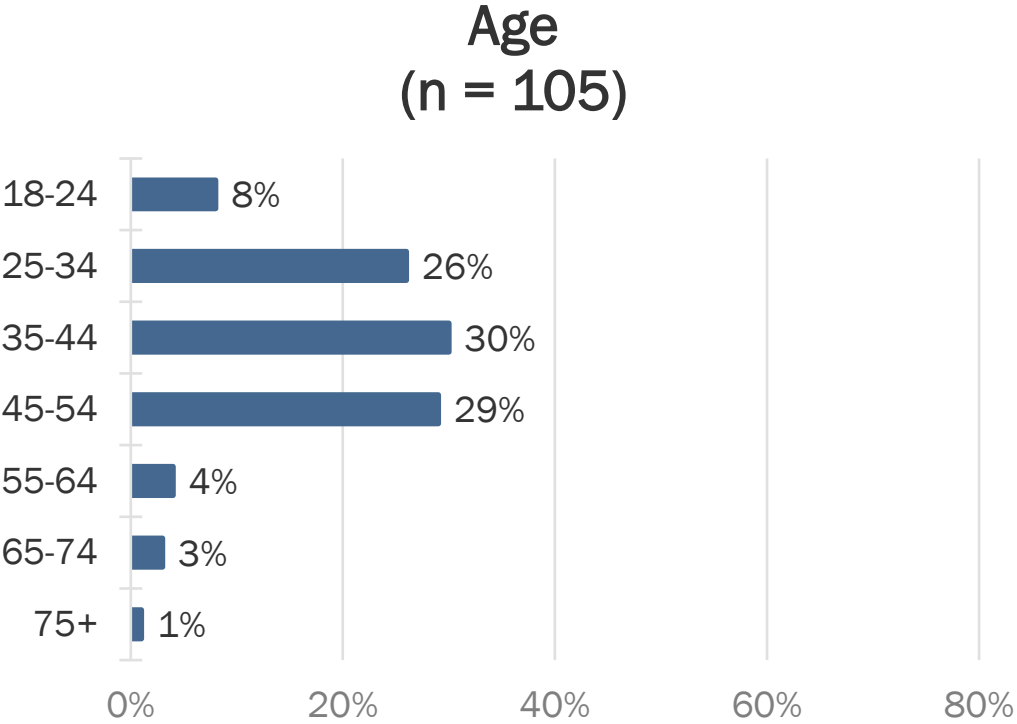


Figure 22. Age distribution of qualitative study participants

More women than men participated in the study (Figure 23). There were 5% of folks who identified as non-binary or gender(s) not listed here.

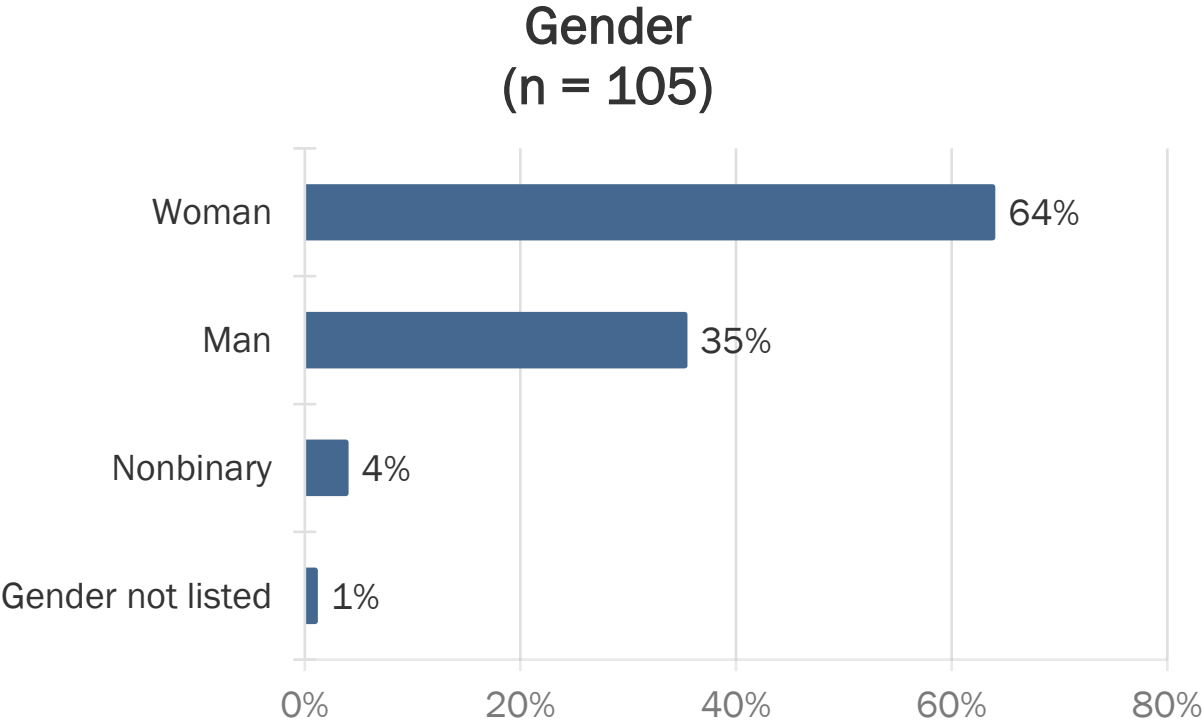


Figure 23. Gender of qualitative study participants

Race, Ethnicity and Home Language

Compared to the census data, we heard from more people who identified as non-white, as shown in Figure 24.

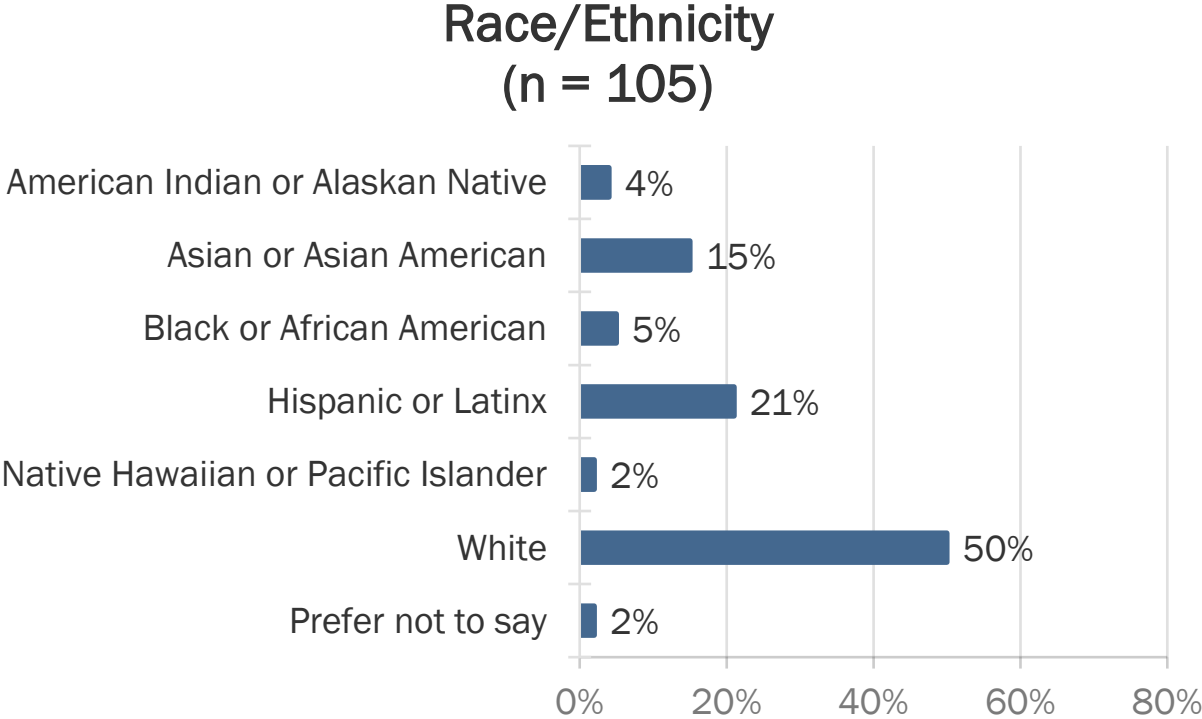


Figure 24. Race and ethnicity of qualitative study participants

Figure 25 shows languages spoken by the participants at home. Other languages included Caddo, Dutch, Hawaiian, Lingala, Portuguese, Pulaar, and Punjabi.

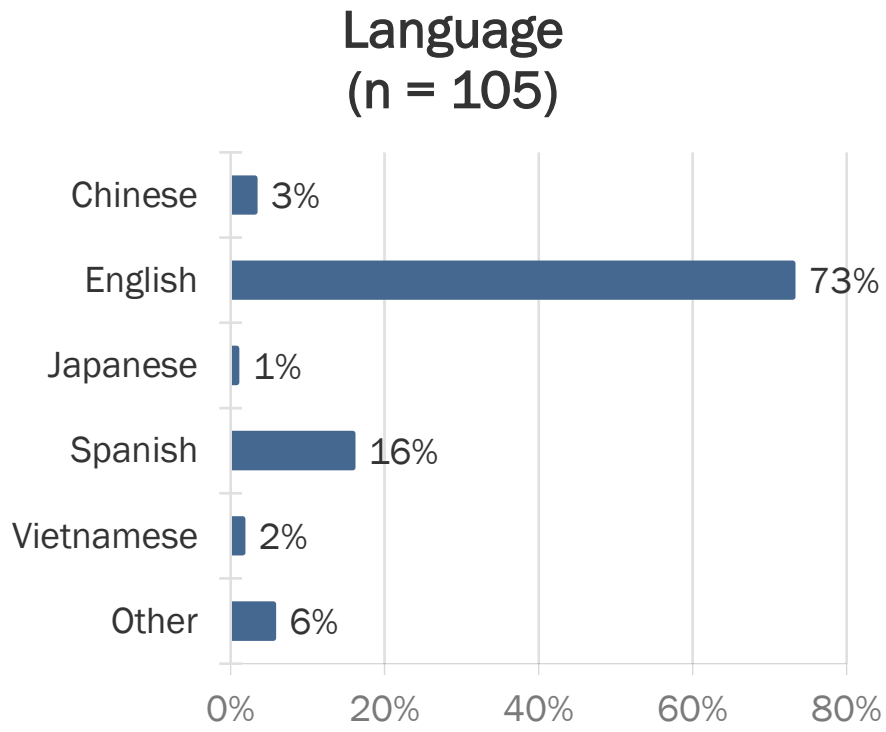


Figure 25. Language(s) spoken at home by qualitative study participants

Income and Education

Our participants were spread out in income brackets as shown in Figure 26.

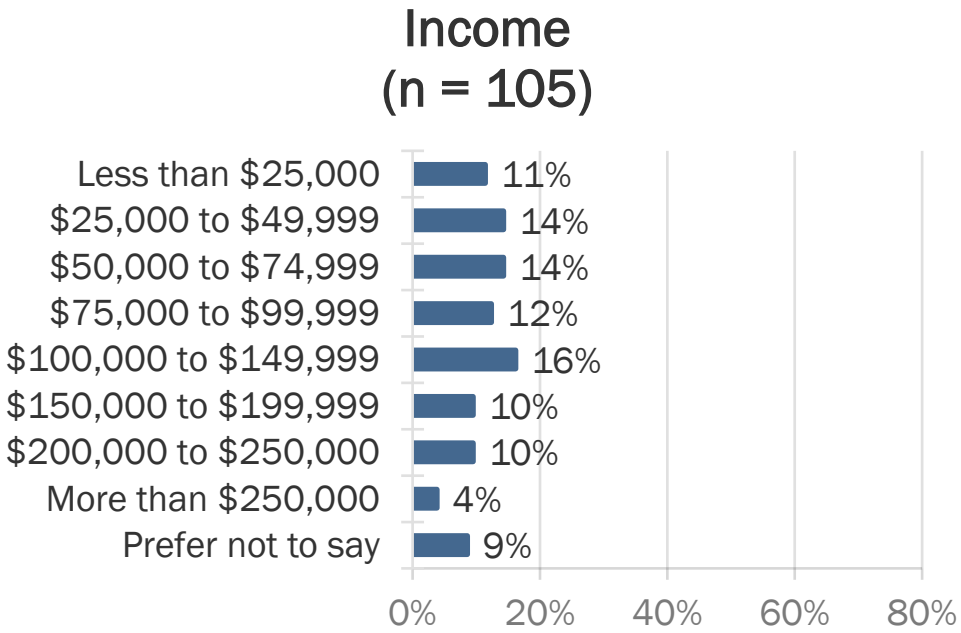


Figure 26. Total household income in 2022 of qualitative study participants

Four five percent of the participants had a college or higher education, but we also heard from participants without a college degree, as shown in Figure 27.

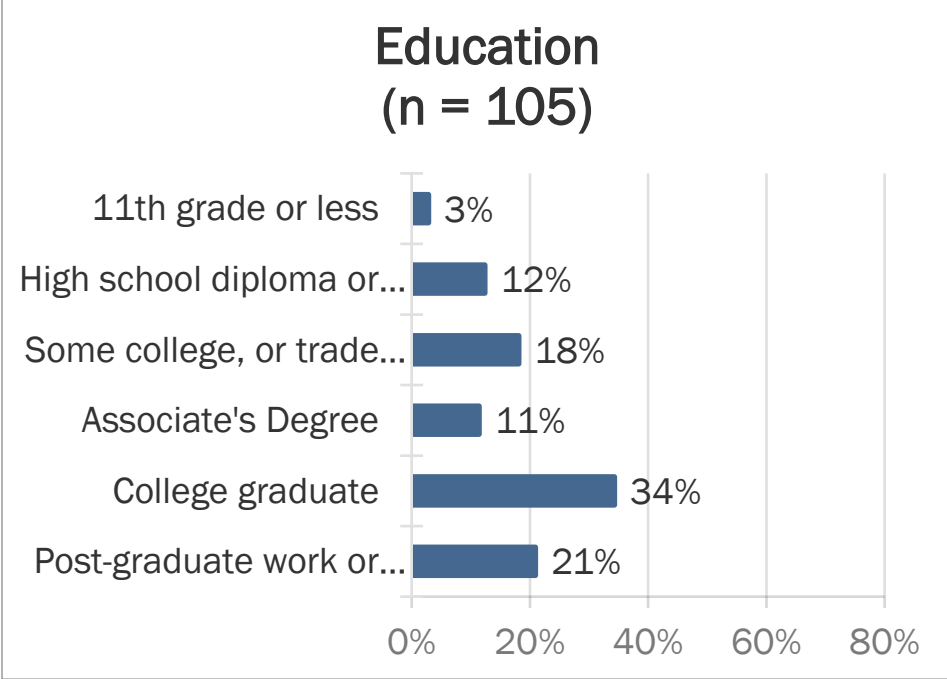


Figure 27. Highest level of education reported by qualitative study participants

Children in the household

Figures 28 and 29 show 53% of participants had children at home and households with two children were the most common group (25%), followed by households with 1 child (18%).

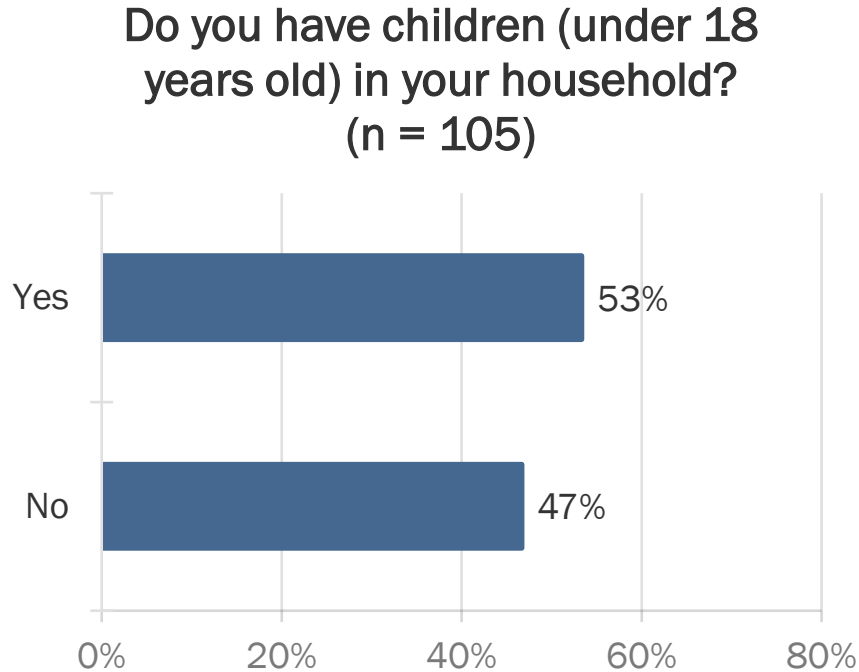


Figure 28. Number of participants who have children in their household

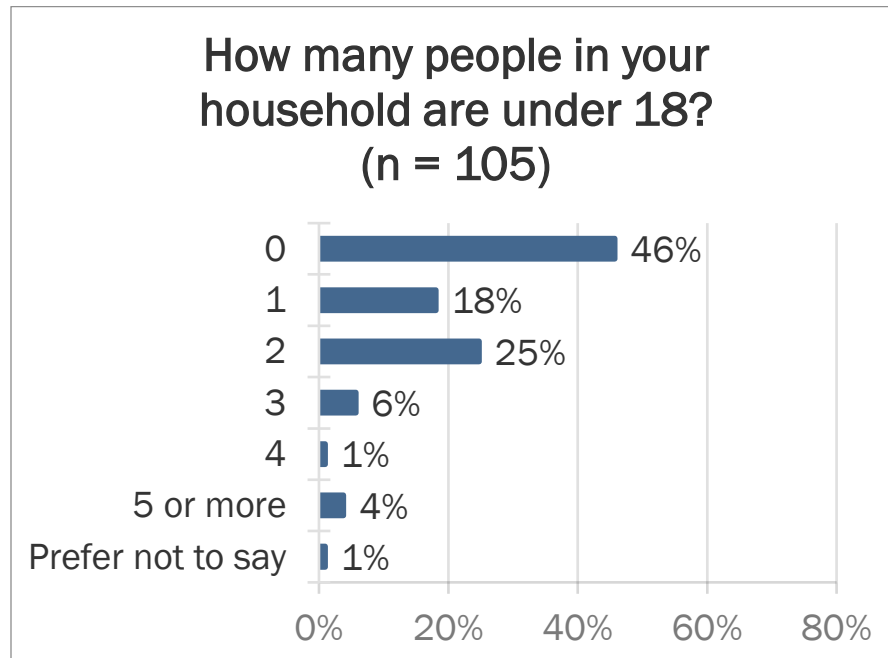


Figure 29. Number of children in participant's household

Additional information about study participants

Sample with different perspectives

- As part of the screening process to invite participants for the qualitative study, we aimed to seat a panel of participants with different perspectives on food waste.
- Survey participants told us how much they were concerned about food waste in their responses. Therefore, we invited participants with different levels of concern about the issue, as shown in Figure 30.
- In the qualitative study sample, 45% of participants expressed concern about the amount of food they threw away, and 55% were either not too concerned or not at all concerned.

How concerned are you about the amount of food you throw away?
(n = 105)

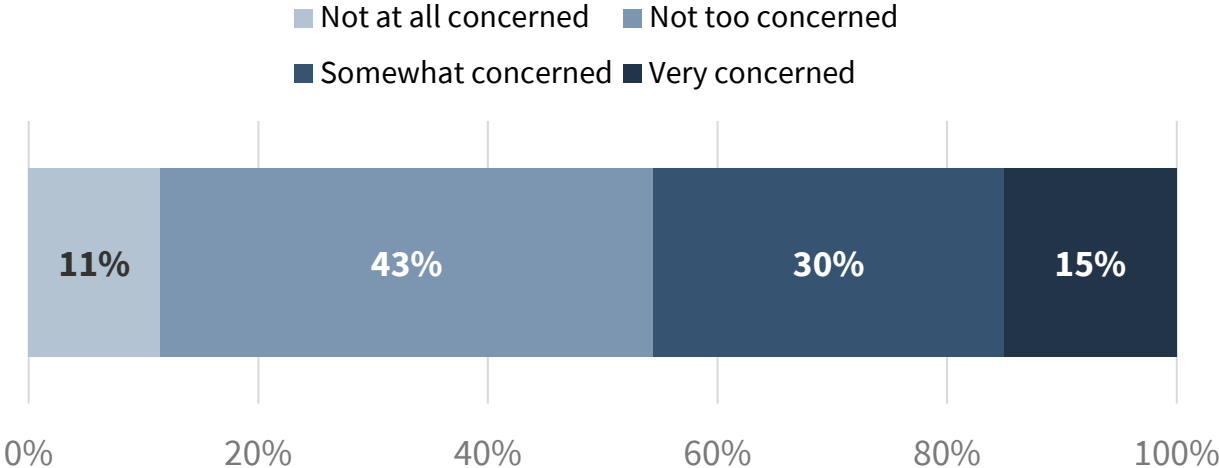


Figure 30. Participants' level of concern about the amount of food they throw away

Participants cared about their culture, their families, and the environment.

Participants and their families came from diverse cultural backgrounds.

- “We are American, but my husband is part Mexican through his grandmother. We adopted an Alaska Native child and try to learn as much as we can about her native culture.” (Woman, American Indian or Alaskan Native and White, 45-54, \$50k to \$99k, living with child(ren) <18)
- “I am Taiwanese, and my husband and roommate are White.” (Man, Asian or Asian-American, 25-34, \$100k+)
- “We are white Americans and practicing Christians and that influences most of our holidays and traditions.” (Woman, White, 35-44, \$100k+, living with child(ren) <18)

Many participants were parents, were close with extended family, and/or pet owners.

- “I’m a new resident of central Washington along with my husband and my newborn son. The most important things to me are my family, health of myself and my family, and spending quality time together.” (Woman, White, 25-34, \$50k to \$99k)
- “I enjoy exercising, spending time with family, eating together and exploring new places together.” (Spanish) (Woman, Hispanic or Latina, under 25, under \$50k, multigenerational household, living with child(ren) <18)

Participants were concerned about the environment and climate issues.

- “I am a retiree who cares about the environment. I am practicing ways to reduce waste and lower my carbon footprint.” (Woman, White, 55-74, \$50k to \$99k)
- “I think issues about sustainability and climate change are really important, especially at municipal levels, such as how cities are built and can be more sustainable (better stormwater/sewage systems, food recycling, building more efficiently, etc.)” (Man, Asian or Asian American, 25-34, \$50k to \$99k)

Many had busy schedules but enjoyed serving their community.

Many participants had busy schedules.

- “I don’t always have the time to cook meals as I spend a lot of my time working, exercising, and spending time with others.” (Woman, White, 25-34, under \$50k)
- “Due to long work hours and poor work-life balance, we often go for quicker meals and ready-made or processed foods.” (Woman, Asian or Asian-American, 25-34)

Participants enjoyed serving their community.

- “I just earned my teaching degree and am subbing at a local middle school where I would like to become a full-time math teacher. Family, kindness, and giving back to my community are all pretty important to me.” (Woman, White, 45-54, \$100k+, living with child(ren) <18)
- “With a regular schedule, I’ll be able to return to volunteering at a Seattle Public Library branch as a Homework Helper. I’m looking forward to this as well as finding another volunteer position somewhere else.” (Woman, White 45-54, under \$50k)

Some participants practiced self-sufficiency through backyard food gardens, compost bins, and/or raising livestock.

- “I grow a fair amount of our family’s foods and buy both meat and veggies from local farms. We compost veg scraps for use in our garden or feed them to our chickens. As a result of our practices, we produce very little food waste, and scraps go back into our yard.” (Woman, American Indian or Alaskan Native and White, 45-54, \$100k+)
- “I have a micro container garden. I'm wondering what I can grow indoors this winter.” (Woman, White, 45-54, under \$50k)

Participants cared about healthy eating, but cooking was not always enjoyable.

Many participants were focused on eating healthy.

- “I have had several health issues over the last year so I started eating more healthy and taking supplements to improve my health.” (Woman, White, 45-54)
- “I enjoy cooking and want my kids to eat as much as veggies and fruit as possible.” (Woman, White, 35-44, \$100k+, living with child(ren) <18)

Most participants regularly ate a variety of foods and had a few staple meals that were popular among their household.

- “We eat a diversity of foods, but our main food is rice dishes from Senegal. We cook a rice and fish dish, meat and onion sauce, okra and seafood. The other foods we make are fast and easy meals like tacos.” (Women, White, 45-54, \$100k+, living with child(ren) <18)
- “We eat meat, mostly chicken and turkey. My husband is sensitive to gluten, so a lot of meals we eat are gluten free. My kids and I love yogurt and apples. My husband enjoys berries.” (Woman, White, 35-44, \$50k to \$99k, living with child(ren) <18)

Participants had mixed feelings about cooking.

- “I don’t like to cook but eating healthy is one of my priorities, so I don’t mind doing it.” (Spanish) (Woman, Hispanic or Latina and White, 35-44, under \$50k, living with child(ren) <18)
- “Sometimes I enjoy cooking, mostly it's just a task that needs to be done that benefits my health and my wallet.” (Woman, White, 45-54, \$100k+, living with child(ren) <18)

Detailed Results

Summary of Results

- We obtained rich data from the 6-week long online qualitative study. To present all of our findings in a meaningful and easy to follow manner, we broke down our detailed results into two parts.
- First in Part 1, we focused on findings about participants' behaviors and opportunities relevant to the campaign. In this section we presented the findings for each stage through the journey of food: planning and shopping, cooking, storage, and disposal (Figure 31).
 - For each stage in this journey, we organized our findings using a SWOC (Strengths, Weaknesses, Opportunities, and Challenges) analysis framework (Figure 32).
 - For example, for the planning and shopping stage, we identified participants' strengths (what they were already doing successfully to reduce food waste), weaknesses (where they failed to reduce food waste), opportunities (where they can improve) and challenges (barriers they faced that prevented them from reducing food waste).
 - At the end of each stage, we presented corresponding recommendations to address the weaknesses, challenges and opportunities identified earlier.
- Next, in Part 2 of detailed results, we presented findings following specific focuses or themes. There are five different topics, outlined in Figure 33.

Part 1. Journey of Food

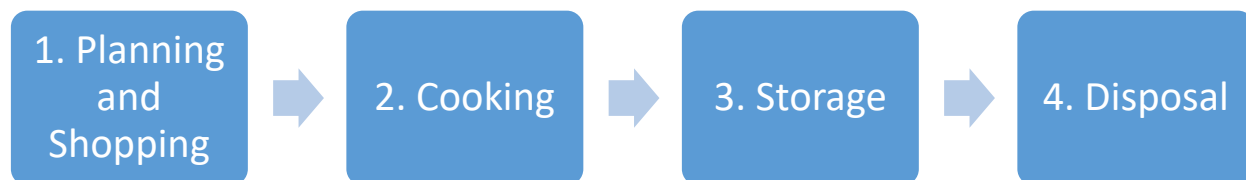


Figure 31. A flow chart describing the journey of food

Strengths Identify strategies or practices participants are already doing to limit their food waste.	Weaknesses Identify areas where participants are falling short of limiting food waste.
Opportunities Identify opportunities for participants to grow or improve their current food saving practices.	Challenges Identify barriers that may prevent participants from adopting solutions to limit food waste.

Figure 32. SWOC analysis key terms and definitions for the organization of findings in Detailed Findings Part 1. Journey of Food

Part 2. Special Focus

Campaign Message Testing

Families with Children under 18

Participants Who Grew up in Non-US Cultures

Partnerships Between Individuals and Agencies

Participant Feedback for the Study

Figure 33. A diagram showing the list of five sections highlighted in the detailed findings section Part 2. Special Focus

Journey of Food 1 – Planning and Shopping

Strengths

Participants have already planned ahead to reduce their food waste.

Participants used a shopping list for most of their grocery shopping.

- “I use a note pad on my phone and add the foods I need and take off the foods I don't need. It helps me stay focused and not buy what I don't need.” (Man, White, 25-34, under \$50k)

Some participants’ diets did not vary much week-to-week, so, their shopping habits are consistent.

- “We tend to order the same/similar base ingredients each time, and then mix up what we make with them. If we're looking to make something that needs unique ingredients, we might augment our usual staples to support that, but by and large, our shopping cart looks very similar trip over trip.” (Man, White, 35-44, \$100k+)

Participants planned daily and/or weekly meals around ingredients they had on-hand.

- “We mostly buy food that looks good, and then plan day of what to eat, depending on what food we have already bought.” (Man, White, under 25, \$100k+, living with child(ren) <18)

Only a few participants bought ingredients for one specific meal regularly.

- “I will buy what is on sale almost always. Unless it is a staple like milk or bread. My lists usually consist of things specific to a meal or what we may be out of.” (Woman, Black or African American and White, 35-44, \$100k+, living with child(ren) <18)

43% of participants shopped once a week and 30% shopped 2-4 times a week (Figure 34)

Question: How often does your household shop for food? Going to multiple stores in one trip counts as one time. Please give your best estimate on average. (n = 113)

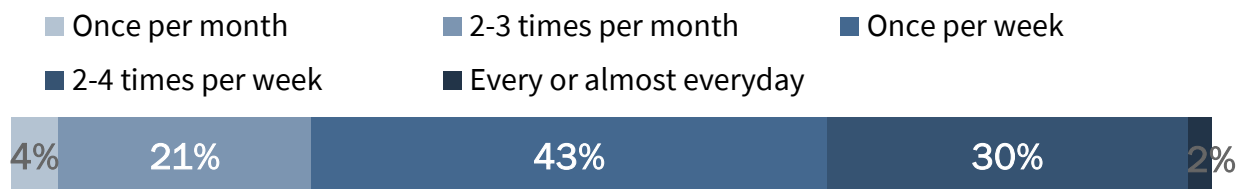


Figure 34. Frequency of how often participants shopped for food (daily, weekly, monthly)

About half shopped with a list most of the time or more. Almost a quarter (22%) used a list every time (Figure 35).

Question: How often does your household shop with a meal plan or a pre-planned list? (n = 106).

■ Very rarely ■ Sometimes ■ About half the time ■ Majority of the time ■ Almost every time



Figure 35. Frequency of how often participants shopped with a meal plan or a pre-planned list

Weaknesses

Participants mentioned impulse buying and a lack of routine as barriers to planning.

Participants often impulse-bought at least 1-2 items per shopping trip.

- “Maybe a third is what I buy every week: favorite vegetables (cucumbers) or basics for sandwiches. Most of what I buy is spontaneous.” (Woman, Asian or Asian American, 45-54, \$100k+)
- “I’d say 75% or more is from the list. We mainly shop at Costco so there’s always a lot of temptation in the form of other things to buy.” (Woman, White, under 25, \$50k to \$99k, living with child(ren) <18)

Some participants had a hard time routinely planning meals ahead of time.

- “I hate trying to think of what to have for dinner every day.” (Woman, White, 45-54)
- “I need a meal calendar, but I’ve been busy.” (Woman, American Indian or Alaskan Native and White, 45-54, \$50k to \$99k, living with child(ren) <18)

Some participants preferred not to make a list when they shopped for food.

- “I hate cooking so generally I just go and grab some ingredients I know I can use for a few meals or snacks.” (Woman, White, 35-44, \$100k+)

Opportunities

Shopping list tools and increased awareness of potential waste during planning and shopping would help reduce waste.

Participants used grocery apps or other apps with built-in lists.

- “I typically use grocery pickup and will order online [...] I normally stick with what we like to eat and reorder from my usual list.” (Woman, White, 35-44)
- “I use a list so I don’t forget anything. I add things as we run out of them throughout the month. I code them according to the store I get them from and where they are located in the store so I can shop more efficient. I use the app That Shopping List.” (Woman, American Indian or Alaskan Native and White, 45-54, \$50k to \$99k)

Participants often thought about food waste when planning or shopping.

- “When I'm shopping, I'm thinking about not buying too much... I actually never realized how much I think about [food waste] until now!” (Woman, White, 35-44)
- “[I think about food waste] most often during purchasing... usually we ask ourselves if we're going to be able to eat all of what we're buying and adjust quantities if we're concerned about it.” (Man, White, 35-44, \$100k+)

Participants began planning more frequently over the course of the study.

- “Yes my behaviors have changed [during this study]. I have been searching out different products for food storage. I also have been trying to shop better and know what I have for meals before I go to the store for the week.” (Woman, White, 45-54)

Current food prices could be a motivator. Higher grocery store density would encourage people to shop more and buy less if practical.

Higher food prices incentivized participants to improve their food management practices.

- “Food has gotten very expensive so cost is a major consideration. Some products I prefer a name brand and others I buy whatever is cheapest or on sale. We primarily shop at the Safeway that is very close to our house for convenience.” (Woman, White, 45-54, \$100k+, living with child(ren) <18)”

Participants prioritized freshness, and convenience of the store when shopping.

- “I would say the most important considerations are freshness and how appealing the food sounds in the moment. I would also say convenience is an important factor in shopping decisions. Things that are easy or quick to cook or take for lunch and work.” (Man, White, under 25, \$100k+, living with child(ren) <18)
- “I prefer the cost savings of WinCo when doing a big shopping trip, but the distance from my home makes it inconvenient to shop there. So quick trips I think about what I am making and that dictates where I closer to home.” (Woman, White, 45-54, \$100k+, living with child(ren) <18)

Challenges

Busy schedules and overbuying led to more waste. Simple strategies could help people with busy lives to plan and make smart purchases.

Some participants viewed meal planning and shopping as extra work.

- “I work long hours, more than I should. Creating that boundary and focusing on the life part would be advantageous in so many ways - including food shopping, prep, and use.” (Woman, White, 45-54, \$100k+)

Participants said looking for sales and discounts to save money sometimes led to overbuying and changing meal plans.

- “[My] family likes variety and we [shop at] Costco for items that are cheaper even if we end up throwing some out.” (Man, White, 35-44, \$100k+, living with child(ren) <18)
- “I usually buy vegetables in bulk cause they are cheaper that way. The problem is, prepping all the veggies [for storage] takes so long so I tend to avoid it as much as possible until it's too late.” (Woman, Asian or Asian American, 25-34, \$50k to \$99k, living with child(ren) <18)

Options for smaller packages would help smaller households. Tips on how to use up all parts of the food would also be useful.

Especially among smaller households, packaged foods usually came in such large quantities that it is difficult to use all up in time.

- “[I would produce less food waste] if grocery stores made it more affordable to buy small quantities.” (Woman, White, 25-34)

Participants did not know how to use up all parts of the food.

- “[We produce more food waste] when there's a large quantity of inedible aspects of the item... things like corn husks, woody stems of broccoli/asparagus, strawberry stems etc.” (Man, White, 35-44, \$100k+)

Recommendations – Planning and Shopping

- Frame planning and shopping tips and tools as strategies to save money.
- Promote awareness of how overbuying from sales and discounts results in higher waste and loss.
- Build awareness of different shelf-lives of products or strategies to extend food life.
- Encourage a more mindful perspective on food and grocery shopping.
- Encourage a new habit of “shopping in your pantry and fridge first” before grocery trips to use up food on hand – tie it to the idea of a “use it up” day or meal.
- Increased grocery store density within neighborhoods may encourage people to shop more and buy less (if practical), ultimately wasting less.

Journey of Food 2 – Cooking

Strengths

Many participants used improv cooking, had routine meals, or used “first in, first out” rule to reduce waste.

Participants used the “first in, first out” method to cook foods that were closer to expiration first.

- “Another thing that is important to me is that I don’t waste food. Sometimes I will make a certain meal or dish because a certain food or item needs to be used.” (Woman, Asian or Asian American and Native Hawaiian or Pacific Islander, 35-44, \$100k+, living with child(ren) <18)
- “I bought a bag of potatoes and I am trying to use them all before they go bad.” (Woman, White, 35-44, living with child(ren) <18)

Participants had staple or routine meals that they prepare every week.

- “It's part of a planned meal. We like to have pizza one day during the weekend.” (Woman, White, 35-44, \$50k to \$99k, living with child(ren) <18)
- “This is a regular breakfast meal that I make often. It is normally on my meal plan and shopping list, so I am used to making it and avoiding waste.” (Man, White, 35-44)

Some participants were good at cooking a meal with ingredients on-hand using improv cooking skills.

- “I didn’t plan, I just used what I already had at home.” (Spanish) (Woman, Hispanic or Latina, under 25, living with child(ren) <18)
- “I didn’t purchase any ingredients specifically for this meal. I repurposed left over parmesan crisps and sauce from other previously prepared meals. I reworked the lemon garlic sauce to work for this meal (recipe derived from some HelloFresh recipes I’ve used in years past)” (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)

Participants showed us how they used up ingredients they had on-hand (Figures 36 and 37).



Figure 36. A counter-top showing various foods and ingredients that a participant already had in their fridge and household storage

“Breakfast hash/breakfast burritos is a go-to to try to get rid of things.” (Man, 25-34, Asian or Asian American, \$100k+)



Figure 37. Ingredients that a participant would use to cook a meal with

“I bought it all for this meal, except the sauce which was left over from last week's pizza. We have pizza on the weekend so the ingredients left over will get used again soon.” (Woman, 35-44, White, \$50k to \$99k, living with child(ren) <18)

Most participants cooked often: 35% cooked more than once a day and 41% cooked 4-7 times per week (Figure 38).

Question: How often does your household cook? (n = 106)

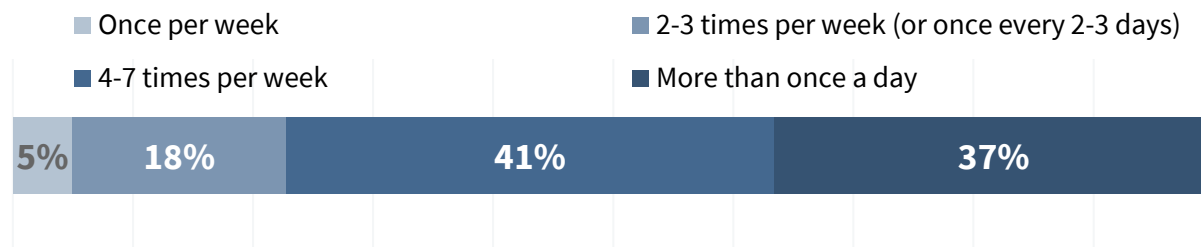


Figure 38. Frequency of how often participants cooked per week

**Note: Question options not selected by any participants include “Once per month or less” and “2-3 times per month”.*

Weaknesses

Cooking the right amount was hard for many households.

Family members did not eat the food that was prepared.

- “Honestly, feeding our children [is a challenge]. One of whom is one and throws everything on the floor. The other is four and hates everything, but we still put some on his plate to expose him to it.” (Woman, White, under 25, \$50k to \$99k, living with child(ren) <18)
- “Preparing food for my family and assuming that everyone will be eating together at home, when in reality, sometimes they will eat out or they prefer other meals. Or the food I prepared wasn’t what they wanted to eat or they are invited to eat out or they gave pizza at work.” (Spanish) (Woman, Hispanic or Latina, 45-54, living with child(ren) <18)

Participants sometimes cooked too much.

- “My biggest challenge is not over cooking. I realize my family doesn't eat leftover food, but I rarely am able to cook without creating them.” (Women, White, 45-54, \$100k+, living with child(ren) <18)

Some participants choose not to eat and/or forget about leftovers.

- “Leftovers were thrown out. It would have been avoided if the family would do a better job of eating and reusing Leftovers.” (Women, White, 45-54, \$100k+, living with child(ren) <18)
- “I forgot the risotto was in there. I could have frozen it or given it to someone.” (Woman, White, 25-34)

Opportunities

Participants were interested in eating healthy and learning new skills.

Participants (especially many Spanish-speaking participants) preferred the health benefits of cooking at home.

- “Sometimes I enjoy cooking, but mostly it's just a task that needs to be done that benefits my health and my wallet.” (Woman, American Indian or Alaska Native and White, 25-34)
- “I do enjoy cooking. I enjoy eating good and healthy food. I also know that if I cook a meal I know what is going into the meal and what nutrients my family is getting, which is important to me.” (Woman, Asian or Asian American and Native Hawaiian or Pacific Islander, 35-44, \$100k+, living with child(ren) <18)
- “I like to cook healthy foods that are tasty and that will keep my family full and that I’m cooking in my clean kitchen, washing my hands well, avoiding cross contamination with meats and veggies, and knowing that I am cooking with love.” (Spanish) (Woman, Hispanic or Latina, 35-44, living with child(ren) <18)

Participants were interested in learning creative ways to use on-hand ingredients and/or to repurpose leftovers.

- “If I don't want to go to the store, I will look at everything I have and see if I can make a meal out of it. An app to help with that would be good.” (Woman, White, 45-54)
- “Most of these were ingredients that needed to be used up before going bad, but also it’s a very quick, easy and healthy meal without a lot of fat and sugar.” (Woman, 25-34, American Indian or Alaska Native and White, \$50k to \$99k) (Figure 39)

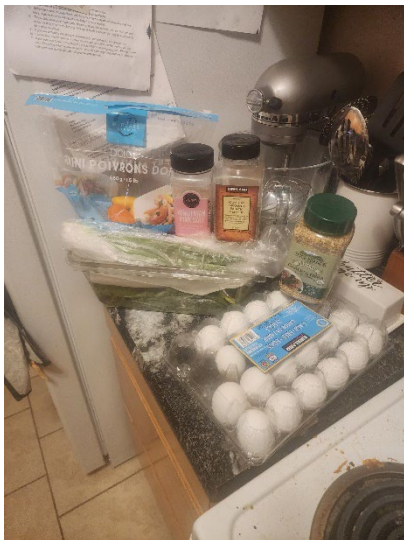


Figure 39. Various ingredients placed on a kitchen countertop that a participant needed to use before they spoil

Challenges

Waste management was not a top priority for participants while cooking.

Participants found cooking stressful due to busy schedules.

- “I enjoy cooking meals that take 15 mins or less. Even though we are an Indian Asian household, I personally do not enjoy cooking our ethnic food as I feel the cooking time takes too long.” (Woman, Asian or Asian American, 25-34)
- “Usually we value how quick things need to cook during the weekday! After the work day, [we] don't want to spend 2-3 hours cooking.” (Man, Asian or Asian American, 25-34)

Participants thought about food waste less while cooking.

- “[I think about food waste less] when I am cooking [...] I still use recipes quite a bit and when I am juggling multiple different components, I usually am just blindly following the recipe with no consideration for the ramifications.” (Man, White, under 25)
- “When I cook [...] I always think we will finish all the food. I don't consider that there might be food left over.” (Spanish) (Woman, Hispanic or Latina, 35-44)

Experimenting with new recipes sometimes led to wasted ingredients.

- “I did make some mac and cheese and tried to spice it up with some breadcrumbs but they totally ruined the dish (not my best work) so I did end up scrapping that whole meal.” (Man, White, under 25)

Recommendations – Cooking

- Raise awareness about how to intentionally cook the right amount to suit household size.
- Educate consumers how to use all parts of the food by providing practical tips and related nutritional information, for example:
 - Broccoli stalks can be blended in soups for increased fiber
 - Bones, carrot peels, onion tops, cheese rinds can be frozen until a batch is collected and used for making broth or stock
 - Corn husks can be used for steaming.
- Provide quick and easy tips on how to use leftover food via online tools or other quick-to-reference tools, and/or on food packaging itself.
- Help people develop the skills to create flexible recipes to use up ingredients.
- Work with the Department of Education to include cooking classes as part of K-12 curriculum. Food waste awareness and development of cooking skills starts with the youngest eaters and cooks.

Journey of Food 3 – Storage

Strengths

Some participants were already using foods that they had stored earlier to prevent food waste.

Participants kept scraps or leftovers to repurpose into a later meal.

- “One big thing I'm proud of is I oftentimes throw a lot of leftover produce at the end of a week into a fried rice or make a stir fry. Helpful to get rid of a lot of things at once and it usually tastes good.” (Man, Asian or Asian American, 25-34)
- “If it counts, creating stock with scraps, transforming stale bread into breadcrumbs, using up leftovers as much as possible and being creative with what’s in the fridge.” (Woman, White, 25-34, \$50k to \$99k)

Many participants used reusable containers to store food.

- “Before I do any eating I pre-portion the meat into 1/2 c disposable containers, (which I reuse) and freeze all the extra servings so that I can grab one any time. (for lunch at work or just dinner at home.)” (Man, American Indian or Alaskan Native, Black or African American, and White, 45-54, under \$50k)
- “It was placed in a Tupperware to finish tomorrow since we used a small crockpot to make it.” (Woman, Asian or Asian American, 25-34, \$50k to \$99k, living with child(ren) <18)
- “[Sloppy Joes] freeze great, so I've never had waste of the meat part.” (Man, American Indian or Alaskan Native, Black or African American, and White, 45-54, under \$50k) (Figure 40)



Figure 40. Participant showed us how he used plastic food storage containers to store leftovers in the fridge

Weaknesses

Many did not know how to store food properly to keep food fresh.

Participants did not always know how to optimize food storage for freshness.

- “Storing produce can be confusing - some need cold, some just cool, some need dark, some need to be kept separate... [a fridge magnet with storage tips] sounds like something I would definitely like to have.” (Man, American Indian or Alaskan Native, Black or African American, and White, 45-54, under \$50k)
- “I feel like I've always just tossed things in the fridge and hoped for the best. Then I hear someone say "put that in a paper bag" to make it last and VOILA - what a great tip. However, I don't want to research that each time.” (Woman, White, 35-44, \$100k+)

Participants struggled with organizing refrigerators and pantries to be able to see and prioritize food.

- “The two main reasons I throw food away when that does happen are either that I forgot about something and it spoiled before I could eat it, or I experimented with some recipe that ended up inedible.” (Woman, White, 35-44)
- “Usually, I throw food out because [...] I forgot to use it again (leftovers).” (Woman, Asian or Asian American, 45-54, \$100k+, living with child(ren) <18)
- “Having a pantry where I can easily see everything [would reduce my food waste].” (Spanish) (Woman, Hispanic or Latina, under 25, under \$50k, living with child(ren) <18)

Opportunities

Participants were interested in learning more about how to store food properly.

Participants often thought about food waste when storing food.

- “I think about it when we have too much food. As we prepare to put leftovers into the refrigerator, I do hope we can eat them all and not get sick of it.” (Woman, White, 55-74)
- “I only really think of food waste when I am packing leftovers, open my fridge or am cleaning it.” (Woman, Asian or Asian American, 25-34)

Participants were very interested in tools and information about how to properly store different types of food and/or how to organize food in the fridge or pantry.

- “They should honestly have labels on veggies and fruits saying how to store or signs at the grocery store.” (Woman, White, under 25, under \$50k)
- “[Storage tips in the produce area of the grocery store would be] very helpful for thinking about if I am able to store the ingredient(s) correctly before buying them.” (Woman, American Indian or Alaska Native and White, 25-34)

Challenges

Improper storage and large food packages contributed to food waste.

Households with kids tended to waste more food due to improper storage, like leaving food on the counter instead of refrigerating, disrupting pantry organization, etc.

- “Other times, family members open new packages before finishing the old packages (shredded cheese), which makes it take longer to finish each package and creates a higher possibility of spoilage (mold).” (Woman, Hispanic or Latina and White, 45-54, \$100k+, living with child(ren) <18)

Participants often couldn’t finish packages of produce before they go bad because the packages are too large.

- “Being a two person household and having more food on hand than we can eat before going bad [is a challenge]. Especially with very perishable foods like fruits, vegetables, bread, etc.” (Woman, White, 25-34, \$100k+)
- “The inability to buy less due to how produce is sold or packaged [is a challenge].” (Man, Asian or Asian American, 25-34, \$100k+)

Recommendations – Storage

- Provide fridge and pantry organization tips to keep perishable food visible (stickers, tapes, bins etc.) and within easy reach.
- Implement strategies to encourage people to take a few minutes to label food with a buy or toss date. Recommend apps (bonus if the app can also be used for planning and shopping) that let people search for types of food to learn how long they will keep and how they should be stored to maximize freshness.
- Provide tips on how to properly store leftovers. Pre-portioning and storing freshly cooked meals in the freezer for later use can help avoid the feeling of getting tired of a meal.
- Provide tips and tools to help people separate large, packaged foods or bulk items into portions they are likely to use.

Journey of Food 4 – Disposal

Strengths

Many participants already compost, recycle, and or feed scraps to animals.

Many participants already compost and recycle packaging when possible; some rinse and recycle the containers.

- “I compost most food unless it’s something smelly like seafood or greasy and then will put in a container and dispose in the garbage.” (Woman, Asian or Asian American, 45-54, \$100k+)
- “We always try to separate what is compostable and we put it in the compost bin.” (Spanish) (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)
- “If packaging is recyclable, then I will always rinse and recycle it.” (Woman, Asian or Asian American and Native Hawaiian or Pacific Islander, 45-54, \$100k+, living with child(ren) <18)

Participants with pets and/or livestock give scraps to them, when safe.

- “Food either goes into compost or is given to our chickens.” (Woman, White, 45-54, \$50k to \$99k, living with child(ren) <18) (Figure 41)
- “The dogs usually get the leftovers on the plate (if it's safe)” (Woman, White, 45-54, \$100k+, multigenerational household) (Figure 42)



Figure 41. A participant (Woman, White, 45-54) giving vegetable scraps to her chickens



Figure 42. A participant (Woman, White, 45-54) handing her dog leftover food as a treat

“The dogs ate what was left in the bowls.” (Woman, White, 45-54, \$100k+, multigenerational household)

Weaknesses

Participants had difficulty finishing leftovers in time but sharing with others is uncommon; some threw away food in packaging without composting or recycling.

Leftovers went bad or got boring quickly, leading to waste.

- “[It’s a challenge to] get my partner to eat [leftovers] more than one day in a row and not get bored with them.” (Woman, American Indian or Alaskan Native and White, 45-54, \$50k to \$99k)
- “We threw [leftovers] out because they were getting old and no one was eating them. The food was not fresh anymore. We could have saved those food items if we planned to eat leftovers multiple nights in a row.” (Man, White, under 25, \$100k+)

Some participants threw away food scraps and packaging that could be composted or recycled.

- “I don't separate the food from its original packaging. Usually it’s a little gross when vegetables go bad so I just throw it out as is.” (Woman, Asian or Asian American, 25-34, \$50k to \$99k, living with child(ren) <18)
- “I don't do any of that for the food. I put it in a plastic bag and throw it outside in the dumpster.” (Man, White, 25-34, under \$50k)

Participants were reluctant to share food with others if it was about to go bad.

- “We threw out some apples and bananas because we got a lot and we couldn't finish all of them. We should have given some to our friends to avoid throwing them out.” (Man, Black or African American, 35-44, \$50k to \$99k, living with child(ren) <18)

Opportunities

Negative emotions felt during disposal can be motivating to reduce food waste.

Participants thought about food waste during disposal and associated it with negative emotions and financial waste.

- “I hate it! It's a waste of money and feels so in my face that I am not grateful enough to have the luxury of ready access to food.” (Woman, White, 35-44)
- “It always hits me when I’m taking the trash out and think gosh that is a lot of waste.” (Woman, White, 35-44, \$100k+)
- “There were scraps from the chopped green onions: the ends were discarded as well as some part that did not appear fresh.” (Woman, White, 25-34, under \$50k) (Figure 43)



Figure 43. Foods items to be discarded by a participant after a meal

37% of participants did not have any access to compost. The rest compost with various methods (Figure 44).

Question: In general, how do you compost your food? (n = 99)

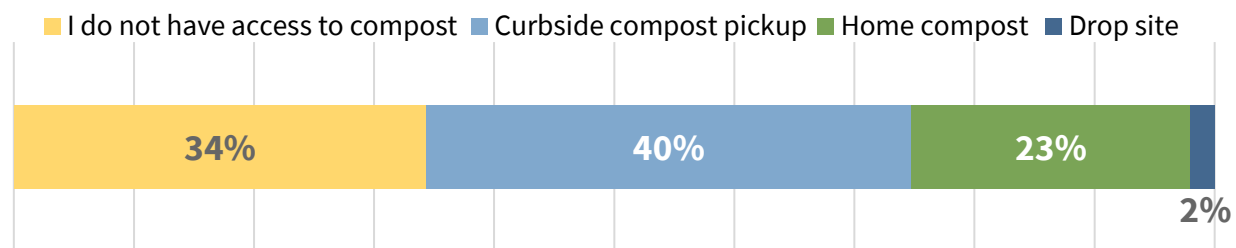


Figure 44. Access to composting as reported by participants

* Note: Question option “Community garden” (compost method) was not selected by any participants.

Opportunities

Participants were open to composting; those who already recycle would readily compost if given access.

Some participants already separate food from packaging, rinse and recycle the containers. But some participants did not have access to composting, so food waste was discarded with the regular garbage.

- “I throw out vegetables in the garbage because I don’t have compost service (I would like to compost but wouldn’t have a place to dump the compost). Anything recyclable, like paper, cans, carton, plastic, I put it in the recycle bin, and I general rinse it out if it has traces of food.” (Spanish) (Woman, Hispanic or Latina, 25-34 under \$50k, living with child(ren) <18)
- “What we normally throw out is food, and we do it in the trash, because we are not sure of another way of getting rid of food waste. If it comes in plastic packaging, we rinse it out and we keep it as a container to store food or to take lunch to work.” (Spanish) (Woman, Hispanic or Latina, 25-34, \$50k to \$99k, living with child(ren) <18)

Participants wanted to learn more about composting, especially community-based composting.

- “I’d like to learn better how to save and compost food waste in an apartment complex.” (Man, White, 35-44)
- “Learn how to separate what can go into compost, recycling and trash. More awareness.” (Woman, Hispanic or Latina, 45-54)
- “Community compost area- so people can put banana peels and produce in order for gardens to thrive.” (Woman, White, under 25, under \$50k)
- “I ended up throwing [these vegetable scraps] away, though it would be better to compost them. I don’t currently have a way to compost at my apartment.” (Man, White, 35-44) (Figure 45)



Figure 45. Vegetables scraps that could have been composted if participant had access

Challenges

Those who discarded small amounts of food didn't feel like it was a big deal.

Participants felt less bad about throwing away small portions of food.

- "I feel different about throwing away food based on how much is thrown away. If it is minimal then I do not feel as bad as a whole meal being thrown away." (Man, White, under 25, \$100k+, living with child(ren) <18)

Participants felt like they were already doing as much as they could to avoid unnecessary disposal.

- "I do not feel like I have a challenge in reducing food waste as we don't have much of it and when we do it's not a bother." (Woman, Black or African American and White, 35-44, \$100k+, living with child(ren) <18)
- "Hard to reduce much more than I already am." (Woman, White, 25-34)

Some participants couldn't compost due to their current living arrangements.

- "I do not compost, I live in an apartment building and as such don't have the room or use for a compost bin." (Man, White, under 25)

Recommendations – Disposal

- Provide strategies on how to use rather than toss food that isn't fresh. For example, vegetable scraps and peels can be frozen and later used for making soup stock or overripe fruit can be used in baked goods.
- Educate people on what packaging can be recycled and what food can be composted. Leverage folks' awareness of recycling and make it work for composting and proper disposal.
- Increase access to composting. Provide resources and tips on how and where to compost, especially for those who live in multifamily buildings.

Campaign Message Testing

Two rounds of campaign concept testing and participant feedback informed our campaign.

- In the first round, we tested three candidate campaign concepts with various taglines together with four images (Figures 46-49). Participants overwhelmingly preferred the message “Know the Cost.”
- In the second round, we tested the top two choices, plus different combinations of phrases and asked for feedback on an umbrella campaign “Use Food Well” with “Know the Cost” as the main message.
- Additionally, we tested what food-saving strategies participants were already using and what they were open to doing more often given more information. We also asked what kind of campaigns or strategies they would like to see.



Figure 46. “Know the Cost” campaign message image



Figure 47. “Use Food Well” campaign message image



Figure 48. "Tales of the Food We Love" campaign message image option 1

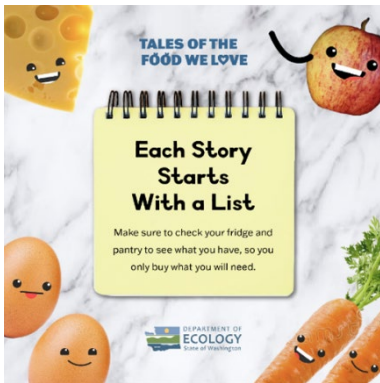


Figure 49. "Tales of the Food We Love" campaign message image option 2

“Know the Cost” was the most likely to encourage people to learn more about food waste and the most effective at raising awareness and motivating folks to take steps to reduce waste (Figures 50 and 51).

Which of the messages we have shown so far do you think you would be most likely to stop and learn more about? (n = 92)

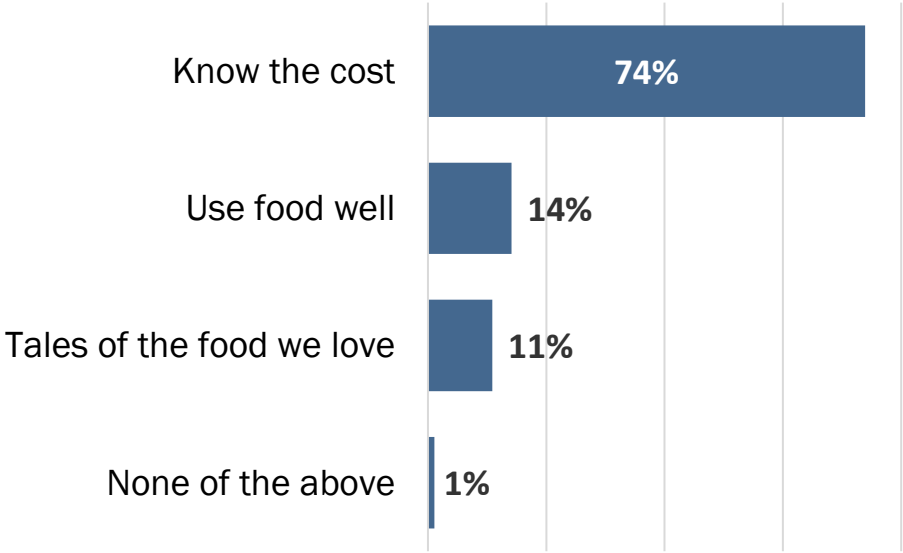


Figure 50. Participants’ interest in three potential campaign messages

Which concept was most effective at raising your awareness about food waste and motivating you to take steps to reduce waste?
(n = 92)

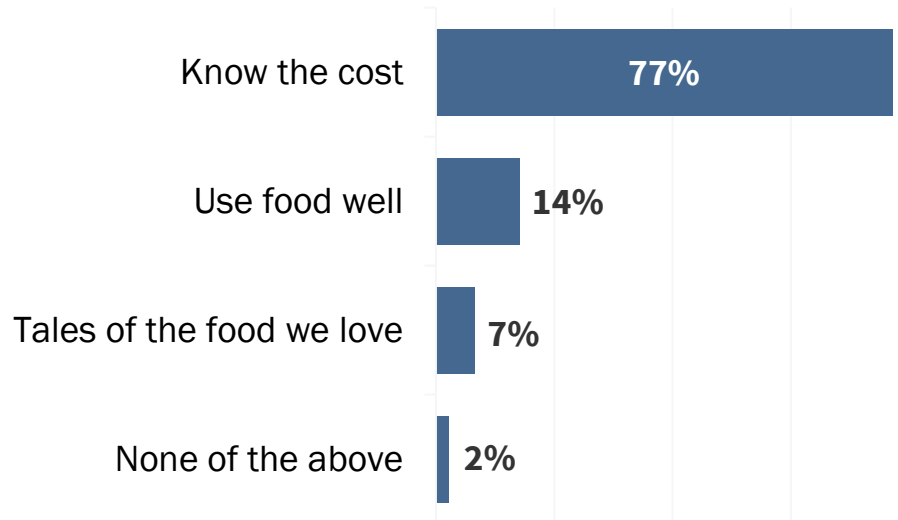


Figure 51. Participants' rating of effectiveness and motivating level of the three potential campaign messages

“Know the Cost” was the most attention-catching and motivating concept (Figure 52).

Which of the following applies to this concept? Please check all that apply.

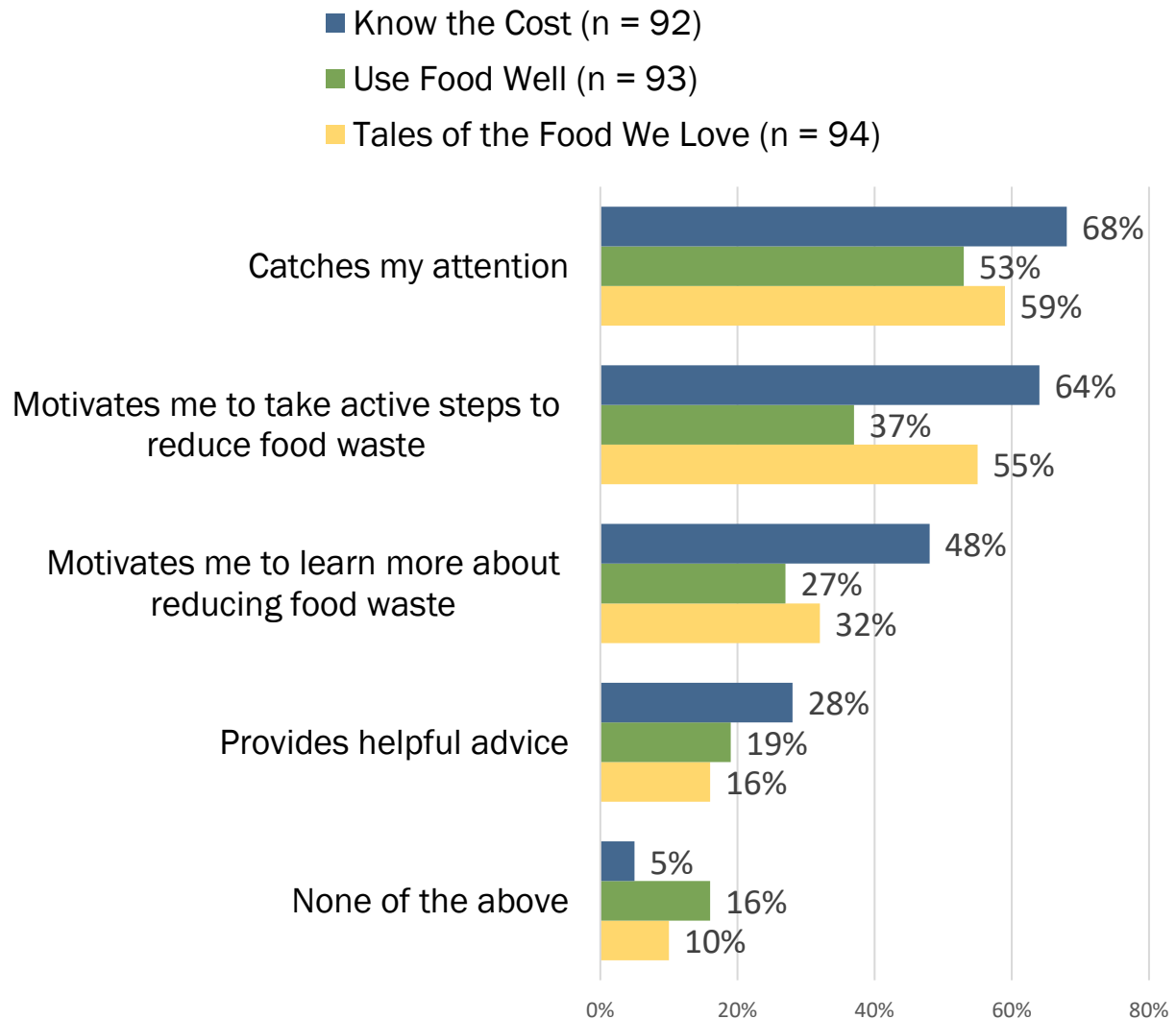


Figure 52. Participants' reactions and sentiments regarding the three campaign messages

For each campaign concept, we asked participants which phrase most resonated. 'Plan ahead' and 'Food waste adds up' rose to the top (Figure 53).

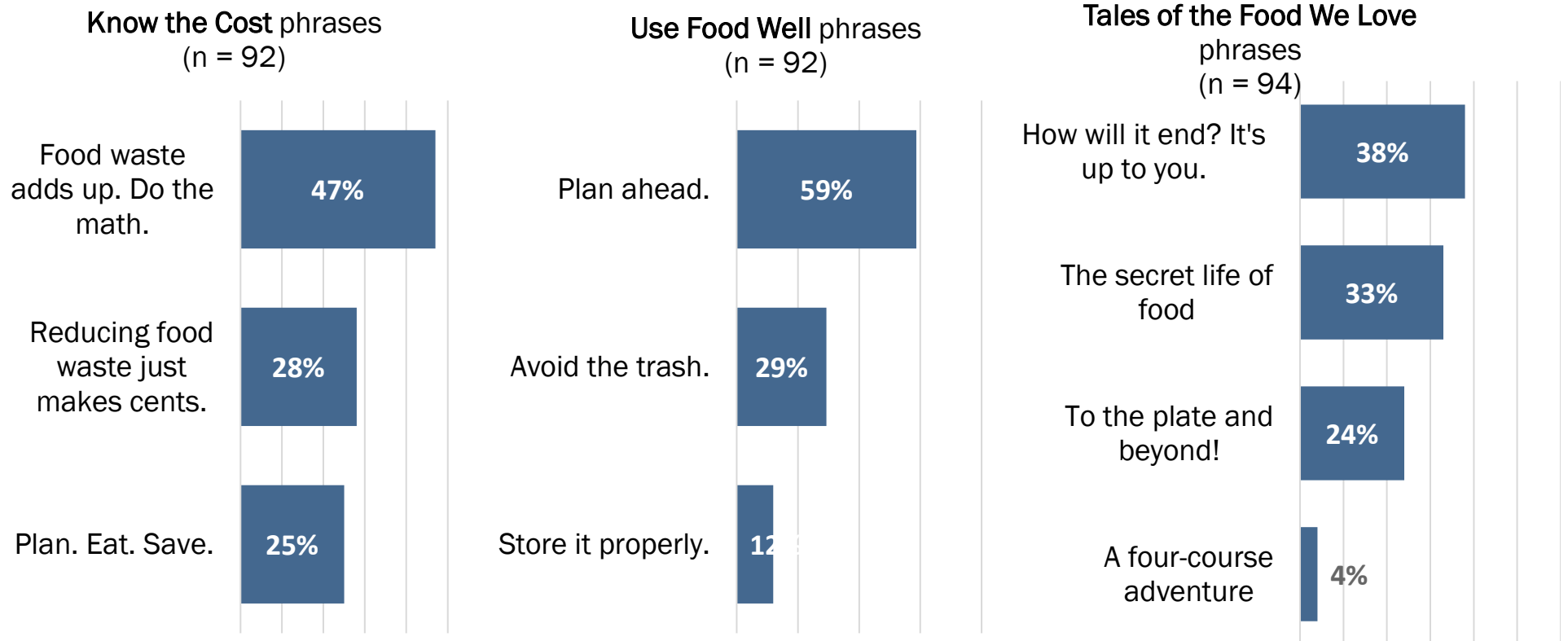


Figure 53. Phrases that resonated with participants per campaign message

In round two, as shown in Figure 54, we found that “Know the Cost” was still the more compelling stand-alone message and more likely to change behaviors than “Use Food Well”.

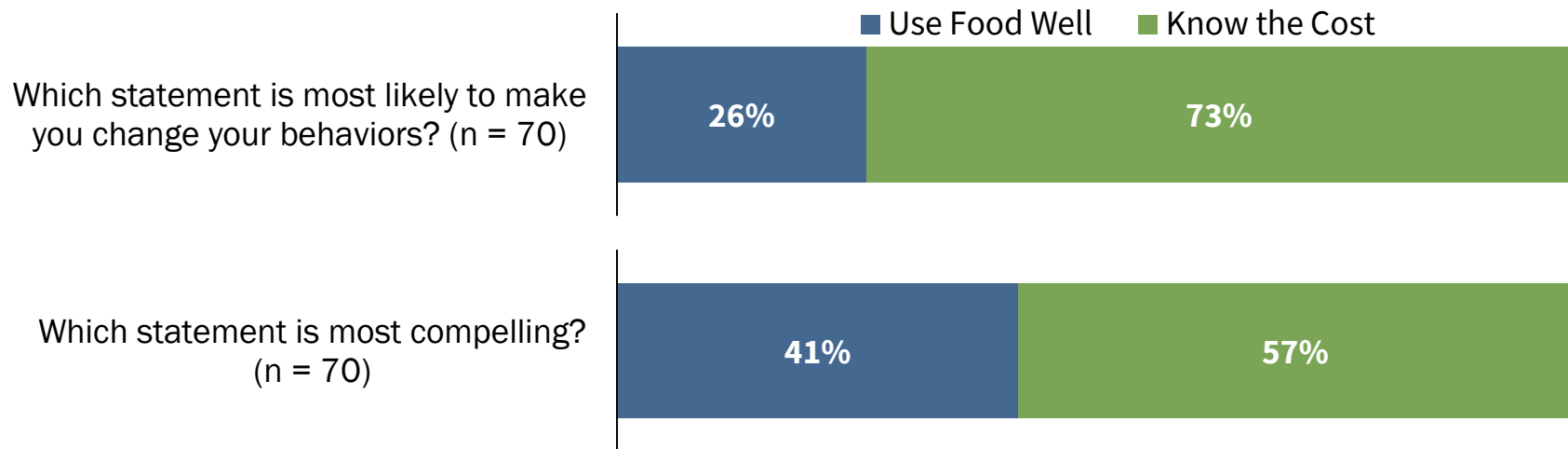


Figure 54. Participants rated “Use Food Well” and “Know the Cost” on which one is more likely to change behaviors and more compelling

When testing an umbrella campaign and main message together, as shown in Figure 55, “Food waste adds up. Know the cost” was the most compelling and more likely to change behaviors.

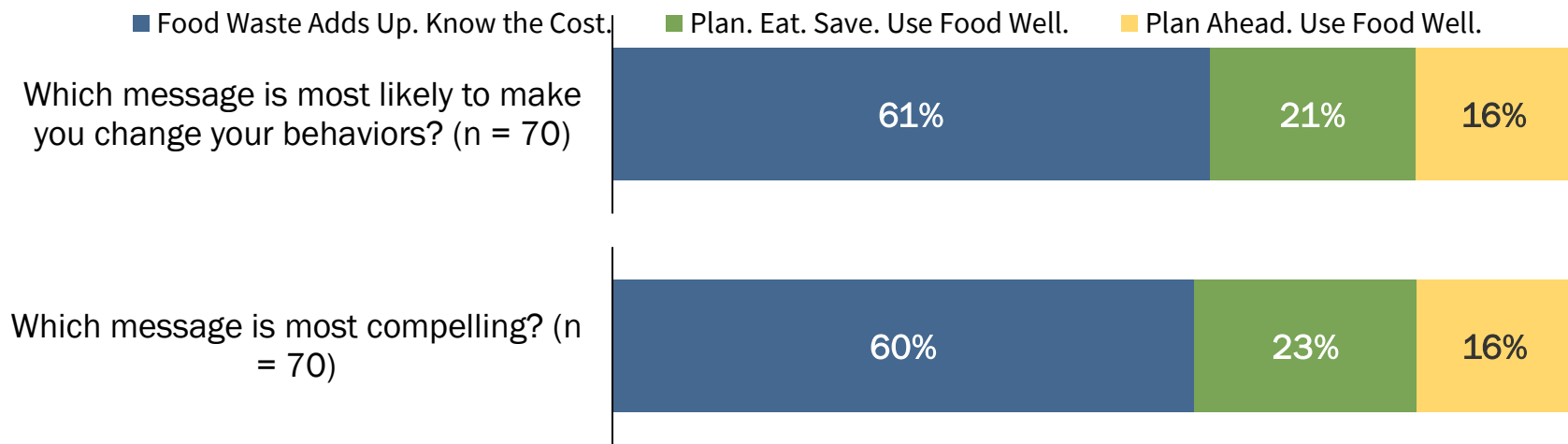


Figure 55. Participants rated three different combinations of messages on which one is more likely to change behaviors and more compelling

Participants gave positive feedback for an umbrella campaign “Use Food Well” with “Know the Cost” as the main message.

“Use food well” highlighted:

- A positive call to action for consumers.
- An invitation to learn more about food waste reduction strategies.
- Opportunities to reduce waste throughout the journey of food.

“Know the cost” highlighted:

- Savings from reducing food waste.
- The ecological harm from food waste.
- An actionable recommendation to consumers.

Overall, participants liked that the message:

- Was versatile as an umbrella campaign, yet highlighted cost as a key motivating factor for many consumers.
- Encouraged thinking about food waste from multiple perspectives.
- Felt relevant to issues that participants were already concerned about.

Participants shared clear priorities for what kind of information they want to get from the campaign, and from what sources and tools.

Participants were most open to:

- Food storage tips.
- Information about how to use all parts of foods - such as bones and broccoli stalks.
- Advice on creating meals from ingredients that need to get used up.

Preferred sources and tools:

- A campaign focusing on how much money can be saved.
- Online tools or apps.
- Fridge magnet with storage tips.
- A campaign focusing on teaching children how to take care of the earth’s resources.

Additional quantitative questions related to their current food waste reduction strategies and what would be helpful and unhelpful in the future campaign.

Please see the four charts (Figures 56-59) below for the additional quantitative results.

Around half of participants said they always store food well, check their pantry and fridge before creating a shopping list, and prioritize using their food before it goes bad.

Question: How often do you take the following steps to help prevent food from going to waste in your household? (n = 66)

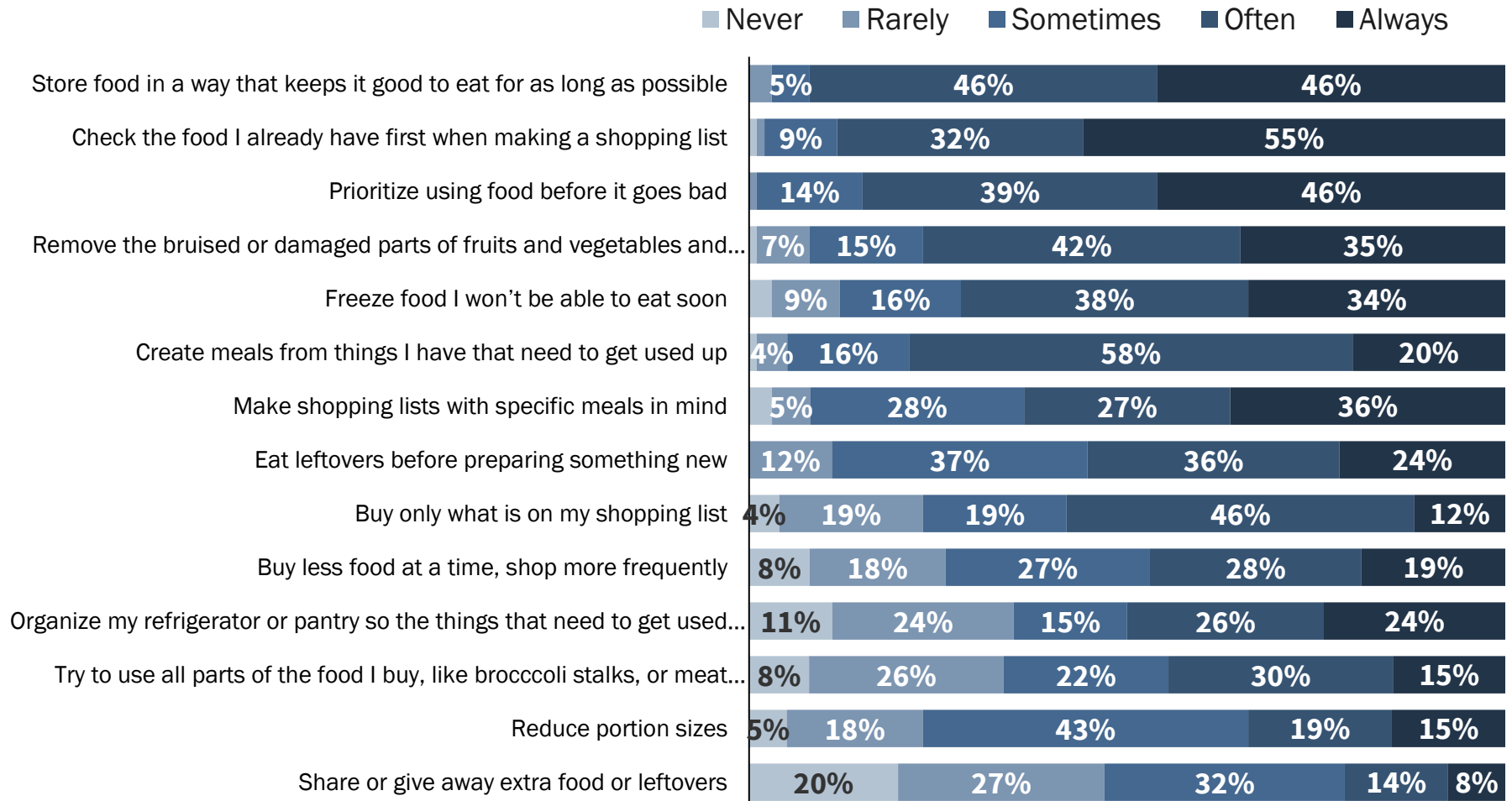


Figure 56. Frequency of how often participants use different strategies for reducing food waste at home and while grocery shopping

**Labels that are smaller than 4% were dropped from the chart to save space.*

Consistent with survey findings, participants were most open to using storage tips, information on how to use all parts of different foods, and how to use up ingredients on hand.

Question: If we provided more information and tips, which of these steps would you do more often? Pick your top three choices. (n = 74)

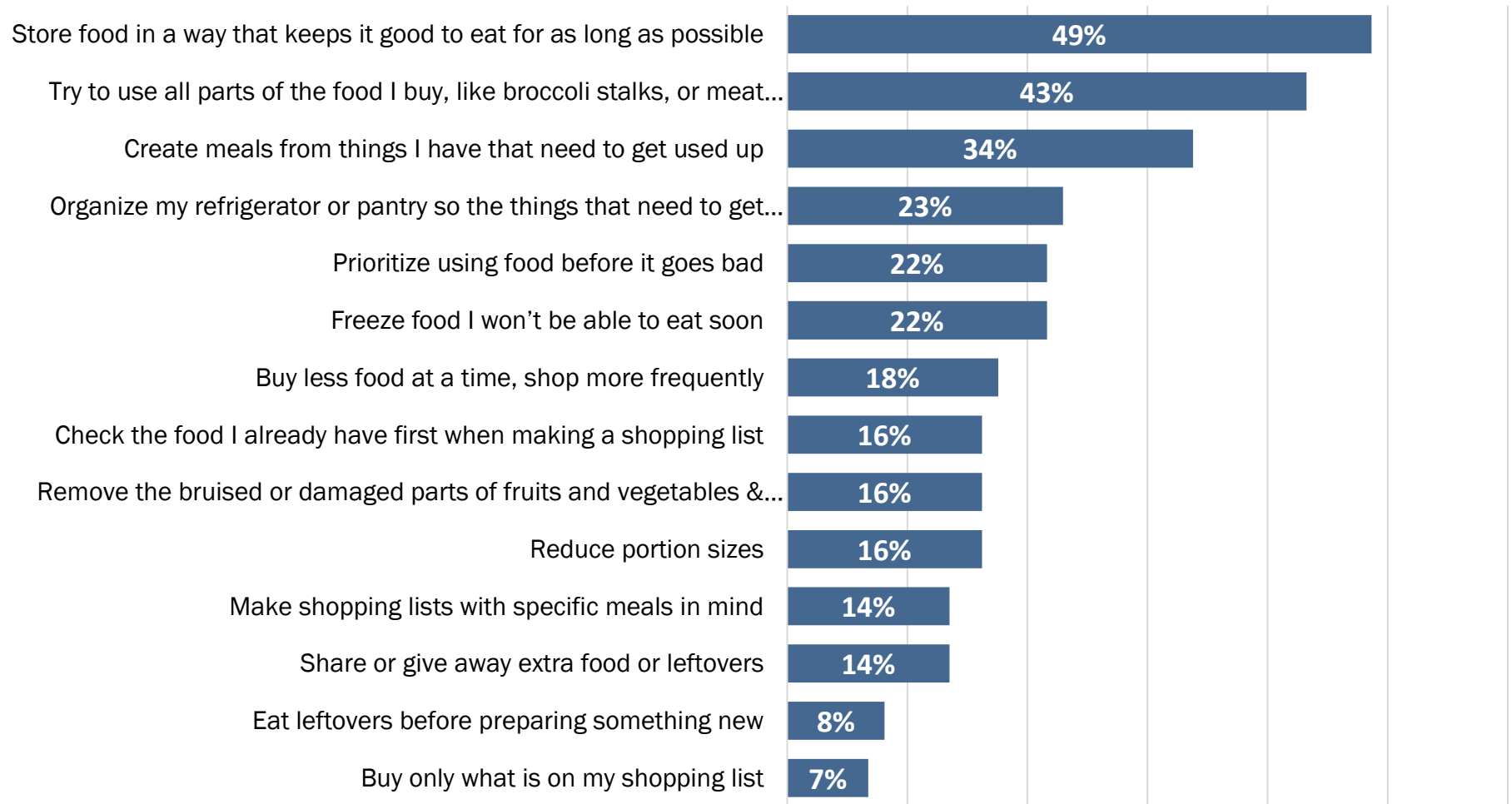


Figure 57. Participants rated their interests in various strategies if provided with more information (ordered from most to least used) for reducing food waste at home and while shopping

Participants would like to see or use: a campaign focusing on cost saving, online tools or apps for flexible recipes, fridge magnet with storage tips, a campaign that teaches children about food waste, and a quippy mass marketing campaign.

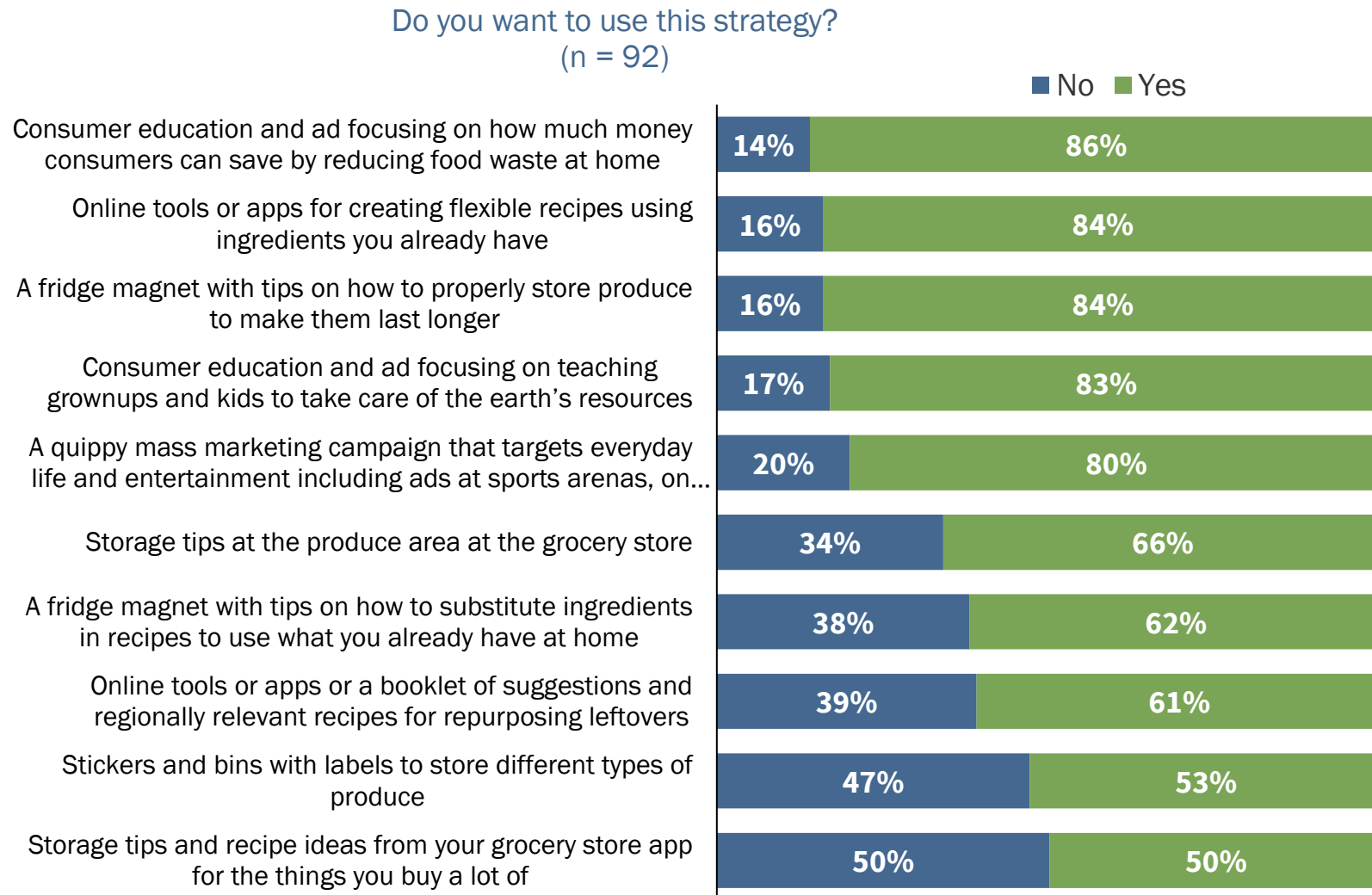
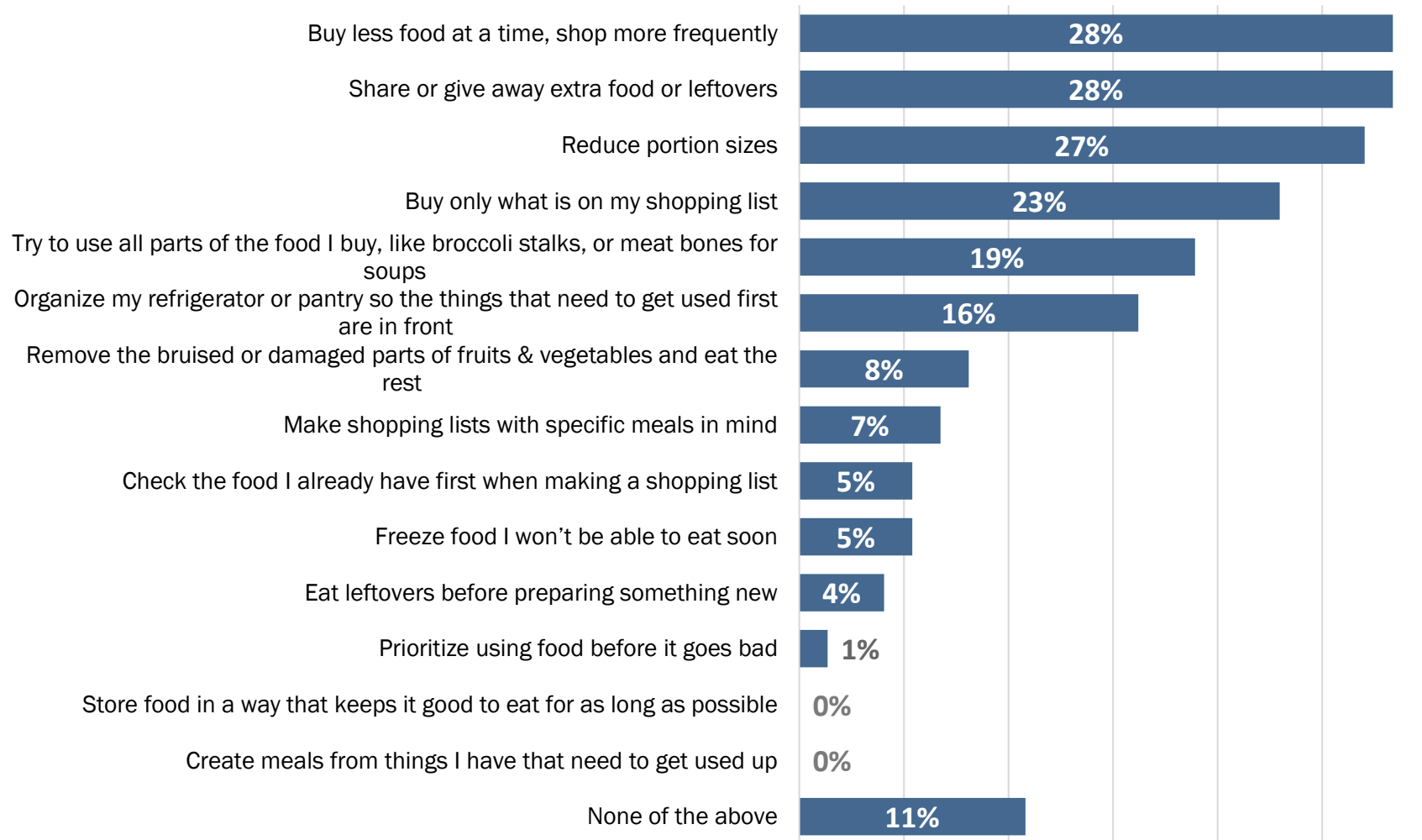


Figure 58. Participants rated their interest in different campaign strategies for reducing food waste

Participants were most hesitant to implement buying less and shopping more frequently, sharing extra food with others, and reducing portion sizes. Question: Are there any steps that you don't think you will implement even with more information and tips? (n = 74)

Figure 59. Participants rated their level of hesitancy for adopting strategies for reducing food waste even with more information



Families with children under 18

Households with younger children reported more food waste compared to households with teens.

Families with younger children tended to throw away more food.

- “The baby's food on the tray, in the bib, and on the floor got put down the disposal and bigger chunks went into the compost.” (Woman, White, 35-44, \$100k+, living with child(ren) <18)
- “We ate all the leftovers. The kids don’t eat their crusts so those get thrown away.” (Woman, White, 35-44, \$100k+, living with child(ren) <18)
- “My biggest challenge is to convince my kids to take the quantity of food they are able to finish.” (Man, Black or African American, 35-44, \$50k to \$99k, living with child(ren) <18)

Families with teenagers may waste less food.

- “The 5 pancakes got left out all day, but might still be eaten by a hungry teenager who comes by.” (Woman, American Indian or Alaskan Native and White, 45-54, \$50k to \$99k, living with child(ren) <18)
- “My kid said there were too many onions [...] which were put into food waste.” (Woman, 45-54, Asian or Asian American, \$100k+, living with child(ren) <18) (Figure 60)



Figure 60. Aerial-view of leftover onions on a plate from a meal

The plate is mostly empty aside from remnants from the meal and small pile of onions not eaten by the participant’s child.

Convenience was a key factor in decision making for parents and caregivers.

Tight schedules affected behaviors and willingness to change.

- “I used to enjoy cooking and it used to be therapeutic for me but because of time constraints with a toddler I value convenience a lot more.” (Woman, Asian or Asian American, 25-34, \$50k to \$99k, living with child(ren) <18)
- “I enjoy being creative and experimenting with new recipe ideas. I also love caring for others through food. However, it does get exhausting at times and I rather not spend too much time cooking.” (Woman, Asian or Asian American and Native Hawaiian or Pacific Islander, 45-54, \$100k+, living with child(ren) <18)

Participants preferred food waste reduction strategies that didn’t require significant lifestyle changes.

- “Would it be possible to develop an app that scans a receipt, so it automatically uploads what you bought to what you have in the fridge? Convenience is everything. If you constantly have to type in what you bought each day, it won't be sustainable.” (Woman, Asian or Asian American, 25-34, \$50k to \$99k, living with child(ren) <18)
- “[Having a tool for making up recipes with ingredients on-hand] is a good strategy that would be helpful for me since I may spend a good amount of time on Google trying to get ideas of what I can make with what I have.” (Woman, Hispanic or Latina, 35-44, \$100k+, living with child(ren) <18)

Cultural change would start with children.

Parents passed on generational knowledge about food waste consciousness and reduction.

- “I remind my family about ways to keep our environment safe for us. We are a family of four and try to conserve water and food as a household.” (Woman, Black or African American, 35-44, \$50k to \$99k, living with child(ren) <18)
- “We have a teenage daughter. All of us are concerned about environmental issues.” (Woman, White, 45-54, \$50k to \$99k, living with child(ren) <18)
- “It is my sense of duty to my family to be fiscally responsible, to feed them healthy food and to teach my kids good eating habits along with the good stewardship of our resources.” (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)

Participants supported food waste reduction strategies that would engage kids.

- “[A fridge magnet with storage tips] could be a fun thing to hand out at events and also use as a learning tool at home for kids.” (Woman, White, 45-54, \$50k to \$99k, living with child(ren) <18)
- “If the kids learned about it [from school] and brought home stuff about it to their parents, it's helping educate the younger and older generation.” (Woman, White, 35-44, \$50k to \$99k, living with child(ren) <18)
- “A video for kids (and families) to look at how food is produced and distributed... sometimes this can get or seem politicized, but I think a lot of kids don't really think of food as a resource: they think of it as food they like and food they don't like.” (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)

Participants who grew up in non-US cultures

Traditional cultures and childhood experience imparted strong attitudes toward food waste.

Participants who grew up in traditional cultures were raised to pay greater attention to food waste.

- “I grew up poor and always thought never to waste food. I always clean out my plate, every single grain of rice too.” (Man, Asian or Asian American, 55-74)
- “Culture plays a very important role in this I believe. Where I grew up, people had very limited resources. My parents were very frugal and never wasted any food from what I can remember, and this helped to shape my habit. It was a shock to me to see how Americans were wasting things when I came to the USA.” (Man, Asian or Asian American, 25-34, \$100k+)

Some participants directly connected food waste to ecological stewardship and/or land conservation.

- “Native Hawaiians believe that the land is our ancestor. While this applies to Hawai'i, it would be a helpful reminder for everyone to realize they have responsibilities to the land.” (Woman, Asian or Asian American and Native Hawaiian or Pacific Islander, 45-54, \$100k+, living with child(ren) <18)

Global perspectives contextualized individual efforts to reduce food waste.

- “I feel so bad when I throw away foods. I know that millions of people are dying around the world because of lack of food.” (Man, Black or African American, 35-44, \$50k to \$99k, living with child(ren) <18)

Traditional food cultures might impart different habits and skills.

Findings

- Strategies such as using a shopping list to reduce food waste might be an assumption in mainstream American culture, but not necessarily commonly adopted in traditional cultures.
- Some participants who grew up in traditional cultures reported different shopping habits from the typical American grocery shopping habits such as:
 - Shopping more frequently with smaller purchases
 - Not regularly using a shopping list
 - More spontaneous purchases based on seasonality and freshness.
- Some participants also shared that they had effectively improved cooking skills so it is easy for them to cook up a meal based on what is on hand.

Participant Quotes

- “[The reason why I rarely use a list is that] I just don't like using a list. I just go to grocery store and pick whatever I like.” (Man, Asian or Asian American, 25-34, \$100k+)
- “[The reason why I rarely use a list is that] we live day to day and asking my family what they would like to eat that day is what we typically do at home.” (Spanish) (Woman, 35-44, Hispanic or Latina, under 50k, living with child(ren) <18)
- “We rarely use a shopping list. My husband (also immigrated to US) likes to cook what's on his mind that requires more specific types of extras (fish balls, chives, beef bones, star anise, etc.). At Asian grocery markets, most is spontaneous purchase based on what my husband cooks and he has different ideas of what he likes without planning. Example, one morning he decides to cook Pho, he already has all of the herbs and condiments at home, but now he'd need to get some bean sprouts, herbs veggies, beef tail bones for broth.” (Man, 25-34, Asian or Asian American, \$50k t 99k)

Partnerships between individuals and agencies

Participants wanted to know their individual efforts were making a difference and part of greater institutional and community efforts.

Some participants didn't think their personal choices were having a major impact.

- “The emphasis on personal responsibility is depressing. I already do what I can and I know it's not enough.” (Asian or Asian American, 25-34, under \$50k, multigenerational household)
- “[To encourage people like me to reduce food waste, it's important to] be reminded that small efforts add up and we all need to do what we can.” (Woman, White, 45-54, \$50k to \$99k, living with child(ren) <18)

Participants said they were more likely to engage with food waste reduction efforts that featured institutional and/or community support.

- “I like the idea of being provided info at grocery stores, and it seems like maybe that could benefit the stores, too – which feels especially good for any local / small businesses.” (Woman, White, 35-44)
- “I'm more likely to engage if I feel there is also a sense of my community embedded within it. Local impacts have always been a bit more engaging and impactful to me. It's hard to conceptualize contributing to a larger goal, state-wide; nationwide; worldwide. But local contributions feel achievable.” (Woman, White, 25-34, \$100k+)

Participants wanted to see information about food waste reduction in community spaces, both in real life and online.

Participants wanted to see more information about food waste reduction in community spaces during the entire journey of food.

- “Pea patch and community gardens would be great places as well.” (Man, Asian or Asian American, 55-74)
- “I think you should include information about food waste on all major grocery stores and their apps. I also think that it would be helpful on those same apps to have recipes in order to reduce food waste.” (Man, White, 25-34, under \$50k)

Participants suggested publicizing information about food waste reduction through social media.

- “Social media is your best bet. Then entertainment sources like YouTube.” (Woman, Asian or Asian-American, 25-34)
- “I don't use TikTok, but getting anything viral there would get lots of information out. Maybe doing a “food waste challenge” of some sort (with possible incentives outside of the already baked in positives)” (Woman, White, 35-44, \$100k+, living with child(ren) <18)

Participants would like to receive information about food waste reduction from grocery stores, emails, YouTube, and grocery apps, as shown in Table 4 below.

Table 4. Participants' top three communication channels to receive information about reducing food waste

	1st Choice	2nd Choice 2	3rd Choice	Total (n=69)
Grocery store	15	7	9	31
Email	8	7	11	26
YouTube	9	7	5	21
Grocery app	3	12	6	21
Local school district	7	4	4	15
Facebook	3	6	3	12
Instagram	6	2	4	12
Newspapers	1	6	4	11
Television	4	3	4	11
Radio	2	3	5	10
TikTok	4	3	2	9
Local library branch	1	5	1	7
Twitter	1	0	0	1

Participants suggested Ecology partner with grocery stores, the school system, and other agencies.

Participants supported partnerships with supermarkets to promote food waste reduction efforts.

- “Walmart, it's a main store for a lot of Washington. It's seen as a cheaper place to shop with lots of savings. So showing how to save on food waste would make sense.” (Woman, White, 35-44, \$50k to \$99k, living with child(ren) <18)

Participants saw youth-serving organizations as an opportunity to educate the next generation about reducing food waste.

- “The school system, as they feed a lot of people and would benefit on a couple of levels from less food waste - budget-wise and clean-up reduction.” (Woman, White, 45-54, \$50k to \$99k, living with child(ren) <18)

Participants looked to government agencies for guidance on food waste reduction.

- “The City/utilities may send information, since they do curbside pickup of our compost. So it feels like a direct tie.” (Man, Asian or Asian-American, 25-34)
- “Local libraries and community centers would be a great place to have that information [...] they offer services for low-income people who could learn more ways to save money when cooking and planning meals.” (Woman, White, 45-54)
- “I think everyone needs to be conscious of how we can help our planet. Everyone knows government agencies, so they are trustworthy.” (Spanish) (Woman, Hispanic or Latina, 25-34, \$50k to \$99k, living with child(ren) <18)

Grocery stores, educational institutions, and local nonprofits are the top partners for the food waste prevention campaign, as shown in Figure 61.

Question: If the Washington State Departments of Agriculture, Commerce, Health, and the Office of Superintendent of Public Instruction were launching a food waste campaign, driven in part by the insights you've shared, who would you most like to see them partner with? (Choose up to three) (n = 69)

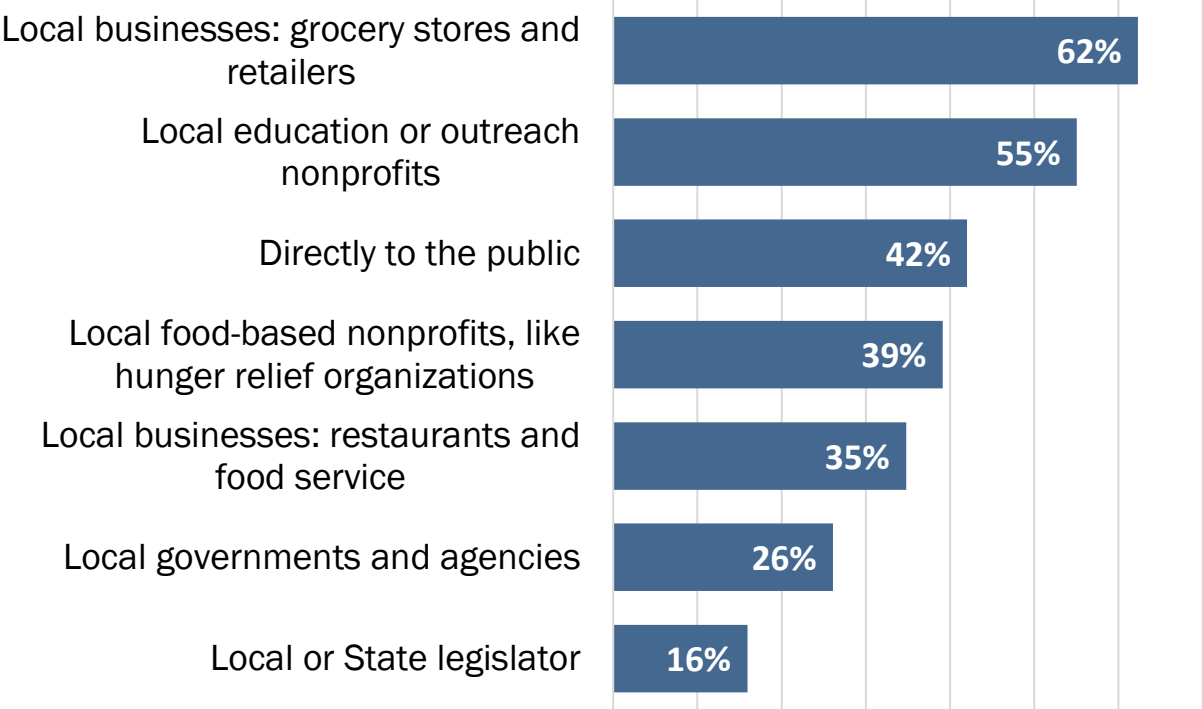


Figure 61. Participants' choices of potential organizational partnerships for Ecology for the campaign

Participant feedback from the qualitative study

Many participants became more aware and started using new strategies to reduce their food waste.

Participants reported that participating in the study made them more conscientious about their food waste habits.

- “It was helpful to realize how much I actually use and how much I waste. It definitely made me more mindful when shopping. Awareness is the answer and seeing my waste helps make change even if it’s small it starts with me.” (Woman, White, 35-44, living with child(ren) <18)
- “I liked being part of this. Writing and reading about the campaign that you are planning/implementing encourages me to pay more attention to how I shop and how I can reduce my food waste which costs me money.” (Spanish) (Woman, Hispanic or Latina, 45-54, living with child(ren) <18)

Some participants began using meal plans or other strategies to reduce waste.

- “Yes, just this last grocery order, I went thru the fridge and pantry and only bought what we needed or what we were low on. I spent a little less and then did a very small order middle of the week, to grab a few things I forgot or ended up needing. I had less stuff to throw out and I also used leftover chicken in another meal, instead of forgetting it and throwing it out days late.” (Woman, White, 35-44, \$50k to \$99k, living with child(ren) <18)
- “I’ve definitely become more conscious of what I cook, and now I try to only cook what I’m going to eat and think of how I can use more parts of my food which, before, I thought I could not use or that I would consider waste.” (Spanish) (Woman, Hispanic or Latina, under 25, under \$50k, living with child(ren) <18)

Participants appreciated the opportunity to give input to Ecology and were looking forward to the statewide campaign.

Participants were thankful for the opportunity to give direct feedback.

- “I enjoyed the study. I liked how I had direct feedback into how the State will looking into food waste in the future and which methods they used.” (Man, Asian or Asian American, 25-34, \$50k to \$99k)
- “I felt honored to have been able to voice my opinions and thoughts. I thought it was nice to have a lot of freehand feedback to provide instead of multiple choices. In some ways, I think it would have been good to get some live or direct opportunities but with how busy people are, I realize this may be tough without a steeper financial incentive.” (Man, White, 25-34, \$100k+)
- “I loved it. Thank you so much for the opportunity to participate. I love that there were incentives of this type, with the best intentions of protecting the environment.” (Spanish) (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)

Many participants gave further suggestions for the statewide campaign.

- “Educate our youth.” (Woman, Hispanic or Latina and White, 35-44, \$50k to \$99k, living with child(ren) <18)
- “Make action easy. Make posters accessible and clear. Tell people about money and how to store food correctly.” (Man, Asian or Asian American, 25-34, \$100k+)
- “Have visual reminders to rotate items in the fridge, to get tips in grocery stores or community messaging, incentives from the county, and receive information in Spanish once in a while.” (Spanish) (Woman, Hispanic or Latina, 45-54, \$100k+, living with child(ren) <18)
- “We have a lot of different cultures and heritages; maybe try to find a way to bring the community together. Such as using an app that has different meal ideas from different leftovers & scraps from each culture/heritage.” (Woman, American Indian or Alaska Native, 25-34, \$50k to \$90k)

Appendices

Appendix A – Survey Instrument

Ecology Food Waste Reduction Survey

The Washington Department of Ecology (Ecology) seeks to hear from people throughout Washington about how you use food. This information will support our food waste reduction work in Washington.

This voluntary 10-minute survey asks about your food storage and disposal behaviors and opinions. Your answers are confidential. You can skip questions or quit at any time. To thank you, adult participants (age 18+) can enter to win one of ten \$100 gift cards. Find out more at the end of the survey.

Please complete this survey by August 7, 2023.

Ecology hired an independent firm, PRR, to conduct the survey. For questions or comments, contact Jade Monroe at Ecology at jade.monroe@ecy.wa.gov or (360)-628-4031 or contact PRR at research@prrbiz.com.

Thank you!

1. What state do you live in?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland

- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

2. What is your home zip code?
3. Which of the following household activities are you at least partly responsible for?
Please check all that apply.
 - a. Grocery shopping
 - b. Putting food into fridge, freezer, pantry, or other storage
 - c. Preparing meals at home
 - d. Ordering meals from restaurants
 - e. Disposing of garbage, recycling, and other waste
 - f. None of the above
4. For each of the following types of food, how often does your household discard it (including trash, compost, disposal, etc.) and what is the main reason why?
 - a. How often do you discard

- i. Never or rarely
- ii. At least once a month
- iii. At least once a week
- b. The main reason why
 - i. My household does not eat or buy this
 - ii. Spoiled
 - iii. Past the expiration date
 - iv. Made or bought too much
 - v. Got tired of eating it
 - vi. Did not like it
 - vii. None of the above
- c. Types of food
 - i. Fruits
 - ii. Vegetables
 - iii. Sauces, dips, guacamole, hummus, dressings, pastes, etc.
 - iv. Bread, tortillas, buns, wraps
 - v. Rice, noodles, pasta
 - vi. Meat, poultry
 - vii. Seafood
 - viii. Eggs
 - ix. Dairy (milk, yogurt, cheese, etc.)
 - x. Any leftovers

5. Do you agree or disagree with the following statements?

	Disagree	Agree	Not applicable
Throwing away food is a waste of money.			
Throwing away food damages the environment.			
I can reduce how much food my household throws away.			

The steps I personally take to avoid wasting food can make a big difference in our society.			
I feel guilty when I throw away food.			
Practical information, ideas, and tips could help me reduce food waste at home.			

- 6. How concerned are you about the amount of food you throw away?
 - a. Very concerned
 - b. Somewhat concerned
 - c. Not too concerned
 - d. Not at all concerned
- 7. How helpful would these resources be to you and your family for reducing food waste at home?

	Unhelpful	Somewhat helpful	Very helpful
Creative tips on using leftovers to make new dishes			

Tips for using up foods before they go bad			
Understanding labels			
Improving dry, frozen, and refrigerated food storage			

8. How motivating would these items be to you and your family for reducing food waste at home?

	Not motivating	Somewhat motivating	Very motivating
Reducing my grocery bill			
Making food last longer			

9. Currently, how often do you take these steps to prevent food waste in your household?

	Never	Rarely	Sometimes	Often	Always
Use a shopping list					
Remove bruised or damaged					

parts of fruits and vegetables and eat the rest					
Use all parts of the food I buy, such as broccoli stalks, or meat bones for soups					
Store food to keep it good to eat for as long as possible; can include proper storage, organization, labeling, and freezing					
Create meals from things I have that need to get used up					
Share or give away extra food or leftovers					

10. If we provided more information and tips, which of these steps would you do more often? Please select all that apply.

- a. Use a shopping list
- b. Remove the bruised or damaged parts of fruits and vegetables and eat the rest

- c. Use all parts of the food I buy, such as broccoli stalks, or meat bones for soups
- d. Store food to keep it good to eat for as long as possible; can include proper storage, organization, labeling, and freezing
- e. Create meals from things I have that need to get used up
- f. Share or give away extra food or leftovers
- g. None of the above

11. Please rate your interest in the following items:

	Not interested	Somewhat interested	Very interested
Meal planning apps or tools generating shopping lists			
Online tools or apps with suggestions and recipes to use up food			
Option of smaller package / portion sizes at the grocery store			
Stay-fresh-for-longer packaging at the grocery store			

<p>A fridge magnet reminder on how to properly store produce to make them last longer</p>			
<p>A fridge magnet with tips on how to substitute ingredients in recipes</p>			
<p>Storage tips at the produce area at the grocery store</p>			
<p>Storage tips and recipe ideas from your grocery store app</p>			
<p>Consumer education and ads focusing on teaching grownups and kids to take care of the</p>			

earth's resources			
Consumer education and ads focusing on how much money consumers can save by reducing food waste at home			
Student and parent education in schools			

12. How would you like to receive information about how you can reduce food waste?

Please select all that apply.

- a. Television news
- b. Food waste reduction website
- c. Newspapers, print or online
- d. E-mail
- e. Text message
- f. Radio or Radio app
- g. Facebook
- h. Twitter
- i. Instagram
- j. TikTok
- k. Other social media (please specify): _____
- l. Other websites (please specify): _____
- m. Other (please specify): _____

13. How old are you? Participants must be 18+ to enter the drawing.*

- a. Under 18
- b. 18-24
- c. 25-34

- d. 35-44
- e. 45-54
- f. 55-64
- g. 65-74
- h. 75+

The following section asks questions about you and your household. These questions are all optional. This information helps us better serve all people in Washington State.

14. How do you identify? Please select all that apply.

- a. Man
- b. Woman
- c. Non-binary
- d. Gender(s) not listed here

15. Including yourself, how many people live in your household?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5
- f. 6 or more

16. How many of the people in your household are under 18?

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4
- f. 5 or more

17. How do you identify? Please select all that apply.

- a. American Indian or Alaska Native
- b. Asian or Asian American
- c. Black or African American
- d. Hispanic or Latinx
- e. Native Hawaiian or Pacific Islander
- f. White
- g. Other race(s) (please specify):

18. What is the highest grade or year of school you completed?

- a. 11th grade or less
- b. High school diploma or GED
- c. Some college, or trade or vocational school
- d. Associate's Degree
- e. College graduate
- f. Post-graduate work or degree (Master's Degree, Ph.D., or professional degrees such as law or medicine)

19. What language(s) do you speak at home? Please select all that apply.

- a. Amharic
- b. Chinese (please tell us more - Mandarin, Cantonese, etc.): _____
- c. English
- d. Hmong
- e. Japanese
- f. Korean
- g. Oromo
- h. Russian
- i. Somali
- j. Spanish
- k. Tagalog
- l. Tigrinya
- m. Ukrainian
- n. Vietnamese
- o. Other (please specify): _____

20. What is your total household income for 2022, before taxes?

- a. Less than \$25,000
- b. \$25,000 to \$49,999
- c. \$50,000 to \$74,999
- d. \$75,000 to \$99,999
- e. \$100,000 to \$149,999
- f. \$150,000 to \$199,999
- g. \$200,000 to \$250,000
- h. More than \$250,000
- i. Rather not answer

Thank you for helping us!

As a thank you for participating in this survey, you can enter a drawing for a chance to win one of ten \$100 gift cards. Please note you must be 18 or older to enter this drawing.

Drawing Rules

- No purchase is necessary to enter the drawing.
- This drawing is administered by PRR, 1501 4th Ave, Suite 550, Seattle, WA 98101
- This drawing is sponsored by the Washington State Department of Ecology (“Ecology” or “Sponsor”), 300 Desmond Drive SE, Lacey, WA 98503
- In order to enter you must:
 - Complete the 2023 Ecology Food Waste Reduction Survey.
 - Indicate your interest in entering the drawing by providing your full name and email address or phone number.
- You are eligible to enter if:

- You are 18 years of age or older;
- You complete the 2023 Ecology Food Waste Reduction Survey by July 31, 2023; and
- You are not an employee of Ecology nor PRR.
- Each person can enter the drawing only once.
- The odds of winning are based on the number of eligible drawing entries. For example, if 100 people enter the drawing, your chances would have a 1 in 10 chance of winning. If 1,000 people entered, you would have a 1 in 100 chance of winning.
- Winners of the \$100 gift cards will be chosen within one month of the survey closing and will be notified via email or phone within two months of the survey closing.
- The ten winners will be selected through a random drawing from among all eligible drawing entrants.
- Winners do not have to be present for the drawing.
- Winners' contact information will not be used in any publicity or promotional materials.
- Winners will need to report the cash value of the prize to the Internal Revenue Service as part of their earnings.

21. Would you like to enter this drawing? *

- a. Yes
- b. No

22. In the coming months, Ecology will conduct a paid research project to learn more about food waste. Are you interested in being invited to participate in this paid study? Participants will earn up to \$200 for participating in the month-long study, which involves answering 6 sets of questions over the course of 3-4 weeks, taking about 3-4 hours total.

- a. Yes
- b. No

23. Please provide your contact information below. The information you share here will only be used to contact you for the purpose(s) you just selected (i.e., for the drawing and/or paid study invitation). It will not be used in connection to your previous survey answers.

- a. First Name: _____
- b. Last Name: _____
- c. Email : _____
- d. (Optional) Phone: _____

Thank you!

We appreciate your feedback!

In Washington State, food waste is a major challenge, with significant environmental, social, and economic impacts. When food is wasted, so are the resources and labor used to grow, harvest, process, transport, and manage the food from farm to table.

Thank you again for supporting our food waste reduction efforts!

Appendix B – Survey Recruitment

Invitation Postcard

How do you use food?

The Washington Department of Ecology is conducting research to understand how people in Washington use food. We will use this information to support our food waste reduction work. As a thank you for participating, adult participants can enter to win one of ten \$100 gift cards at the end of the survey.

To take the survey:

Type this link in the website address bar:
[www.rebrand.ly/WAFOOD2023](https://rebrand.ly/WAFOOD2023) or scan



the QR code using your smartphone or tablet camera.

One entry per household. Participants must be 18 or older. Survey responses are kept confidential.

Questions or concerns?

Please contact jade.monroe@ecy.wa.gov.

Please complete the survey by August 7 – thank you!

¿Qué hace con sus alimentos?

El Departamento de Ecología de Washington está llevando a cabo un estudio para descubrir cómo utilizan los alimentos los habitantes de Washington. Esta información nos ayudará para realizar nuestro trabajo que busca reducir el desperdicio de alimentos. En agradecimiento por participar, los participantes adultos pueden participar para ganar una de las diez tarjetas de regalo de \$100 al final de la encuesta.

Realice la encuesta de una de las siguientes maneras:



Escriba este enlace en la barra de direcciones de su navegador de internet: <https://rebrand.ly/WAFOOD2023ES> o escanee el código QR con la cámara de su celular o tableta.

Un participante por hogar. Los participantes deben ser mayores de 18 años. Las respuestas a la encuesta son confidenciales.

¿Preguntas o dudas?

Envíe un correo electrónico a jade.monroe@ecy.wa.gov.

Por favor conteste esta encuesta a más tardar el 7 de agosto de 2023. ¡Muchas gracias!

Spanish Outreach Flyer

¿Qué hace con sus alimentos?



El Departamento de Ecología de Washington está llevando a cabo un estudio para descubrir cómo utilizan los alimentos los habitantes de Washington. Esta información nos ayudará para realizar nuestro trabajo que busca reducir el desperdicio de alimentos. En agradecimiento por participar, los participantes adultos pueden participar para ganar una de las diez tarjetas de regalo de \$100 al final de la encuesta.



Realice la encuesta de una de las siguientes maneras:

Escriba este enlace en la barra de direcciones de su navegador de internet:
<https://rebrand.ly/WAFOOD-ES> o escanee el código QR con la cámara de su celular o tableta.

Un participante por hogar. Los participantes deben ser mayores de 18 años.
Las respuestas a la encuesta son confidenciales.



¿Preguntas o dudas?
Envíe un correo electrónico a
jade.monroe@ecy.wa.gov.



Appendix C – Qualitative Study Recruitment

Email Invitation

English

Subject: [Action Required] Invitation to Join the Ecology Food Waste Reduction Study.

Hello [NAME],

Congratulations! You have been selected to participate in the Ecology Food Waste Reduction Study. We look forward to having you participate!

To participate, please click the “Accept Invitation” button below to create a Recollective Account.

Recollective is the website where you will be completing a series of online activities as your participation in the study.

We will post 1-2 activities per week; 7 activities total over 4 weeks. You will be paid **\$25 per activity**. **If you complete all 7 activities, you will earn a bonus \$25 for a total of \$200.** Your final payment will be calculated based on the number of activities you complete before the study closes on October 25.

Questions or concerns?

Please email us if you have any questions or concerns at research@prrbiz.com If you experience any technical difficulties, we’re happy to help. Please include the name of this study “Ecology Food Waste Study” in the subject line of your email.

The Ecology Food Center Lead Jade Monroe can be reached here jade.monroe@ecy.wa.gov or by phone at (360) 628-4031.

If you no longer wish to join the study, please let us know and we will stop contacting you.

Here are a few more details about the project:

- Participation is voluntary, all the questions are optional, and you can quit the project at any time.
- Payment will be distributed approximately 2-4 weeks after the study closes. We will send payment via email in the form of an e-gift card.
- We do not expect any risks in participating in this project.
- The Washington Department of Ecology reserves the right to use quotes, images, and videos you have posted. Your name will not be attached to any content Ecology uses.
- Personal information entered on this form is subject to the Washington Public Records Act and may be subject to disclosure to a third-party requestor. At Ecology, we are committed to protecting your privacy and will ensure that any disclosures are done according to law. To learn more about how this information is managed please see our privacy statement.

Thank you!

The Ecology Food Waste Reduction Study Team

Spanish

Sujeto: [Acción requerida] Invitación para participar en el Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos.

Hola [NOMBRE],

¡Felicidades! Ha sido seleccionado para participar en el Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos. Será un placer contar con su participación.

Haga clic en el botón "aceptar invitación" que aparece a continuación para crear su cuenta de Recollective y poder participar en las actividades. Recollective es el sitio web en el que realizará una serie de actividades durante su participación en el estudio.

Publicaremos de 1 a 2 actividades por semana, 7 actividades en total durante 4 semanas. **Recibirá \$25 por actividad. Si completa las 7 actividades, obtendrá una bonificación de \$25, que será un total de \$200.** Su pago final se basará en el número de actividades que realice antes de que cierre el estudio el 25 de octubre.

¿Preguntas o dudas?

Si tiene alguna pregunta o duda, por favor envíenos un correo electrónico a research@prrbiz.com. También le podemos ayudar si tiene algún problema técnico. Por favor, incluya el nombre de este estudio "Estudio Ecológico sobre el Desperdicio de Alimentos" en el asunto de su correo electrónico.

Puede ponerse en contacto con Jade Monroe, la encargada del Ecology Food Center, escribiendo a jade.monroe@ecy.wa.gov o llamando al (360) 628-4031.

Si ha decidido no continuar con el estudio, por favor háganoslo saber y dejaremos de contactarle.

Estos son algunos detalles más sobre el proyecto:

- Su participación es voluntaria. Todas las preguntas son opcionales y puede abandonar el proyecto en cualquier momento.
- El pago se distribuirá aproximadamente entre 2 y 4 semanas después del cierre del estudio. Le enviaremos el pago por correo electrónico en forma de tarjeta de regalo digital.
- No prevemos ningún riesgo al participar en este proyecto.
- El Departamento de Ecología de Washington se reserva el derecho a utilizar los comentarios, imágenes y vídeos que usted haya publicado. Su nombre no aparecerá en ningún contenido que utilice el Departamento de Ecología.
- La información personal introducida en este formulario está sujeta a la Ley de Registros Públicos de Washington y puede ser objeto de divulgación a un tercer solicitante. En el Departamento de Ecología, nos comprometemos a proteger su privacidad y nos aseguraremos de que cualquier divulgación se haga de acuerdo con la ley. Para saber más sobre cómo se gestiona esta información, consulte nuestra declaración de privacidad.

¡Gracias!

El Equipo del Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos

Reminder to sign up for the study

English

Subject: [Action Required] Reminder to join the Ecology Food Waste Reduction Study

Hello,

Recently you took a survey on food waste and indicated you are interested in participating in an in-depth study on this topic. You have been selected to participate in the Ecology Food Waste Reduction Study. We look forward to having you participate!

This is a friendly reminder to join the study. To participate, please click the “Accept Invitation” button below to create a Recollective account before September 21st. Recollective is a research platform where you will answer our in-depth questions about food use behaviors and opinions.

Thank you!

The Ecology Food Waste Reduction Study Team

Spanish

Sujeto: [Acción requerida] Recordatorio para participar en el Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos

Hola,

Gracias por su interés en el Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos. Será un placer contar con su participación.

Le recordamos amablemente que se una al estudio. Haga clic en el botón “aceptar invitación” que aparece a continuación para crear su cuenta de Recollective y poder participar en las actividades.

¡Gracias!

El Equipo del Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos

Reminder for those who registered for an account but did not complete any activities yet

English

Hi [NAME],

Thank you for registering for an account on recollective for our study on food waste. Please start your activities (1 - 3 are all available now) soon, we look forward to your input.

As a thank you for your participation, you will be paid \$25 per activity, and a bonus of \$25 for completing all seven activities, for a total of up to \$200. Your final payment will be calculated based on the number of activities you complete before the study closes.

Please email us if you have any questions or concerns at research@prrbiz.com. If you experience any technical difficulties, we're happy to help. If you no longer wish to participate, please let us know and we will stop contacting you.

The Ecology Food Center Lead Jade Monroe can be reached here jade.monroe@ecy.wa.gov or by phone at (360) 628-4031.

Best,

The Ecology Food Waste Reduction Study Team

Spanish

Hola [NOMBRE],

Mi nombre es Daniel Ruiz. Trabajo para PRR, la compañía encargada de llevar a cabo el estudio sobre el desperdicio de alimentos del Departamento de Ecología. Gracias por inscribirse a la plataforma Recollective. Le escribo este mensaje directamente en caso de que tenga alguna pregunta o duda hasta el momento.

Espero que pueda comenzar a realizar las actividades del estudio lo antes posible para ofrecer su punto de vista. Como muestra de agradecimiento, recibirá \$25 por cada actividad realizada. Además, recibirá \$25 extra si completa todas las actividades, es decir, un total de 7 actividades. En total, tendrá la oportunidad de obtener **hasta \$200**.

Si tiene alguna pregunta, ya sea técnica o general, puede escribirnos a research@prrbiz.com. Si desea contactar al Departamento de Ecología directamente, puede escribir o llamar a Jade Monroe, la encargada del Ecology Food Center, a jade.monroe@ecy.wa.gov o al (360) 628-4031.

Sin más por el momento, quedo a su disposición y atento a sus respuestas. ¡Gracias de antemano por su participación!

Un saludo cordial,

Daniel Ruiz

Reminder to complete study before it closes

English

Subject: [Action Required] Ecology Food Waste Reduction Study closes in 1 week

Hello [NAME]!

Thank you for joining the Ecology Food Waste Reduction Study. We hope you are enjoying participating.

This is a friendly reminder that there is **still time to complete all online activities** on the Recollective website. Please login and complete all activities before **the study closes on October 25**. That's just 1 week left. We want to hear from you!

All activities are open, and it looks like you have at least one left to do. As a thank you for your participation, you will be paid \$25 per activity, and a bonus of \$25 for completing all seven activities, for a total of up to \$200. Your final payment will be calculated based on the number of activities you complete before the study closes on October 25.

If you haven't completed activities 4 and 5 yet, these two ask you to upload pictures of prepping for a meal and the leftovers, so please plan accordingly to have pictures ready and **don't wait until the last few days when it will be very hard to finish**. We would love for you to complete all 7 activities to earn all \$200.

Please email us if you have any questions or concerns at research@prrbiz.com. If you experience any technical difficulties, we're happy to help. If you no longer wish to participate, please let us know and we will stop contacting you.

The Ecology Food Center Lead Jade Monroe can be reached here jade.monroe@ecy.wa.gov or by phone at (360) 628-4031.

Best,

The Ecology Food Waste Reduction Study Team

Spanish

Sujeto: [Acción requerida] El Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos cierra en una semana

¡Hola!

Gracias por participar en el Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos. Hemos podido aprender mucho de usted y esperamos que esté disfrutando de su participación.

Le recordamos amablemente que **aún hay tiempo para completar todas las actividades** en el sitio web de Recollective. Por favor, ingrese y complete todas las actividades antes de que **el estudio cierre el 25 de octubre a las 5 p.m.** ¡Queremos conocer su opinión!

Todas las actividades están disponibles y parece que le queda al menos una por realizar. Como agradecimiento por su participación, recibirá \$25 por actividad y una bonificación de \$25 por completar las siete actividades, que será un total de hasta \$200. Su pago final se basará en el número de actividades que realice antes de que cierre el estudio el 25 de octubre a las 5 p.m.

Si tiene alguna pregunta o duda, envíenos un correo electrónico a research@prrbiz.com. Si tiene dificultades técnicas, estaremos encantados de ayudarle. Si ha decidido no continuar con el estudio, por favor háganoslo saber y dejaremos de contactarle.

Puede ponerse en contacto con Jade Monroe, la encargada del Ecology Food Center, escribiendo a jade.monroe@ecy.wa.gov o llamando al (360) 628-4031.

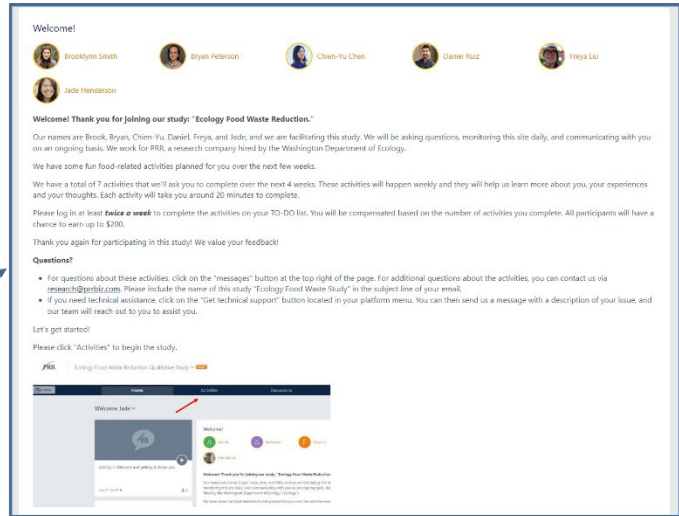
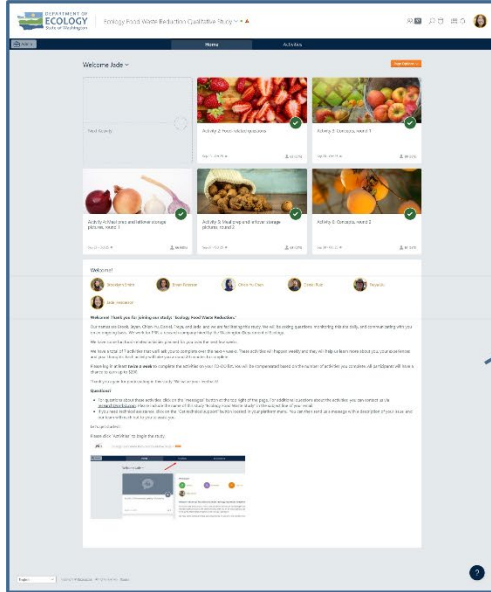
Atentamente,

El Equipo del Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos

Appendix D – Qualitative Study Materials


Qualitative study platform landing page

English



Spanish

¡Bienvenidos!



¡Bienvenidos! Gracias por sumarse a nuestro "Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos." ("Ecology Food Waste Reduction").

Nos llamamos Brook, Chien-Yu, Daniel, Freya y Jade, y somos los encargados de llevar a cabo este estudio. Estaremos monitoreando la página todos los días. Le haremos preguntas y estaremos comunicándonos con usted continuamente. Trabajamos para PRR, una compañía independiente contratada por el Departamento de Ecología del Estado de Washington ("Departamento de Ecología"). Seremos su contacto principal en este estudio.

Le tenemos planeadas algunas actividades divertidas relacionadas con la comida durante las próximas semanas.

Tenemos un total de 7 actividades que le pediremos completar a lo largo de las próximas 4 semanas. Las actividades se llevarán a cabo semanalmente en esta página web. Estas actividades nos ayudarán a saber más sobre usted, sus experiencias y sus puntos de vista. Completar cada actividad le llevará unos 20 minutos.

Por favor, conéctese al menos dos veces por semana para completar las actividades que figuran en la lista de tareas pendientes. Recibirá un pago por cada actividad que realice. Todos los participantes tendrán la oportunidad de ganar hasta un máximo de \$200.

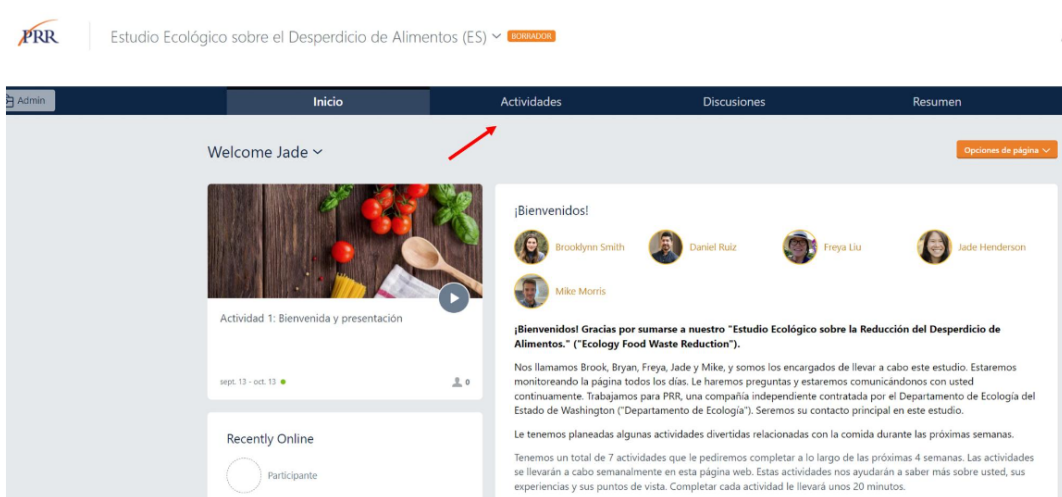
Gracias nuevamente por participar en este estudio. Valoramos sus comentarios.

¿Preguntas?

- Si tiene preguntas acerca de las actividades, haga clic en el botón de mensajes en la parte superior de la página. Si tiene preguntas adicionales sobre estas actividades, escribanos a research@prbiz.com. Por favor, incluya el nombre de este estudio "Estudio Ecológico sobre el Desperdicio de Alimentos" en el asunto de su correo electrónico.
- Si necesita ayuda técnica, haga clic en el botón **"Get technical support" (recibir apoyo técnico)** que aparece en el menú de la página. Puede enviar un mensaje con una descripción del problema y nuestro equipo se pondrá en contacto con usted directamente para resolverlo.

¡Comencemos!

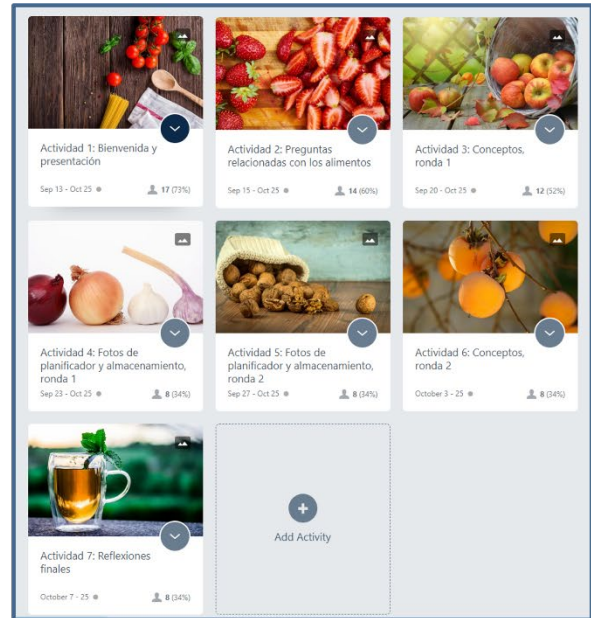
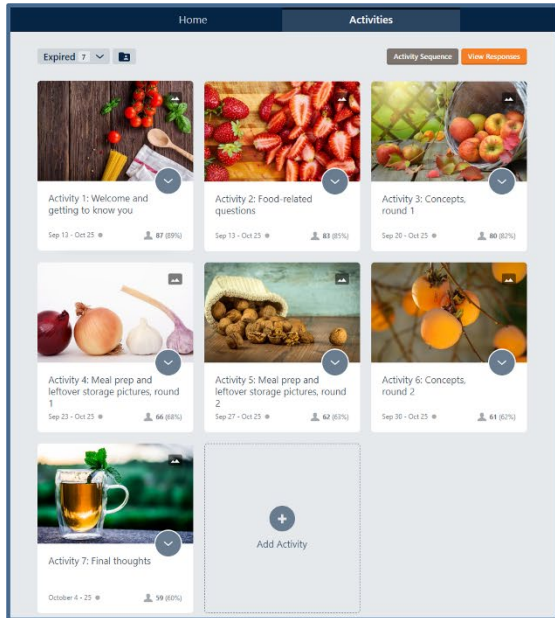
Haga clic en "Activities" para comenzar el estudio.



Para cambiar el estudio a su idioma, haga clic en la parte inferior de esta página web, como se muestra en la siguiente imagen.

Qualitative study platform activities page

English and Spanish



Participant compensation messaging

English

Hello [NAME],

Thank you for your recent participation in the Ecology Food Waste Reduction Campaign Study!

If you completed the study activities on the Recollective website, your payment was processed on November 13th, 2023. You should find an email from reward@virtualrewardcenter.com with a link to access your gift card. Sometimes this email message is automatically forwarded to spam/junk folders so please check there if you can't find it. Most email programs also allow you to search for emails within your inbox as well.

The Virtual E-Visa gift card will be proportional to the number of activities you completed, with a value of \$25 for each activity.

If you run into any trouble or have any questions, please do not hesitate to let us know at research@prrbiz.com. We want to make sure everyone is paid for their time and effort.

Since we do not handle the direct distribution of the gift card, you can also direct any questions regarding claiming or redeeming your reward by contacting Virtual Reward Center at: 1-800-604-1815 or support@virtualrewardcenter.com. After activating the virtual E-Visa gift card, you can contact cardholder@virtualrewardcenter.com for further questions about your card.

Thank you again for participating in the Ecology Food Waste Reduction Campaign Study! It's been a pleasure learning from you.

Sincerely,

The Ecology Food Waste Reduction Campaign Team

Spanish

Hola [NOMBRE],

¡Muchas gracias por su reciente participación en el Estudio Ecológico sobre el Desperdicio de Alimentos!

Si completó las actividades del estudio en el sitio web Recollective, su pago se procesó el 13 de noviembre 2023. Encontrará un correo electrónico de reward@virtualrewardcenter.com con un enlace para acceder a su tarjeta de regalo. A veces, este mensaje de correo electrónico se reenvía automáticamente a las carpetas de correo no deseado/spam, así que verifique si no puede encontrarlo. La mayoría de los programas de correo electrónico también le permiten buscar correos electrónicos dentro de sus recibidos (inbox) también.

La tarjeta de regalo electrónica E-Visa será proporcional a la cantidad de actividades que completó con un valor de \$25 por cada actividad.

Si tiene algún problema o tiene alguna pregunta, no dude en comunicárnoslo en research@prrbiz.com. Queremos asegurarnos de que todos paguen por su tiempo.

Ya que nosotros no encargamos de la distribución directa de la tarjeta de regalo, también puede dirigir cualquier pregunta relacionada con el reclamo o el canje de su recompense comunicándose con Virtual Reward Center al 1-800-604-1815 o support@virtualrewardcenter.com. Después de activar su tarjeta de regalo electrónica E-Visa, puede comunicarse con cardholder@virtualrewardcenter.com si tiene más preguntas sobre su tarjeta.

¡Gracias nuevamente por participar en el Estudio Ecológico sobre el Desperdicio de Alimentos! Ha sido un placer aprender de usted.

Sinceramente,

El Equipo del Estudio Ecológico sobre la Reducción del Desperdicio de Alimentos