## 2017 Oregon Wasted Food Statewide Phone Survey



Summary of Methodology and Findings

\&<br>Portland State Survey Research Lab

## Oregon Department of Environmental Quality

Submitted
October 11, 2017
Revised
May 28, 2018

By

Debi Elliott, PhD<br>Director<br>503-725-5198 (voice)<br>elliottd@pdx.edu (email)

Amber Johnson, PhD<br>Senior Research Associate 503-725-9541 (msg only) amberj@pdx.edu (email)

Tiffany Conklin, MUS
Research Associate 503-725-5970 (voice) tconklin@pdx.edu (email)

With Valuable Assistance from:
Deme Shor, MURP

## In Partnership With:

Portland State University, Community Environmental Services
Christa McDermott, PhD, Director

## Survey Research Lab

Portland State University
P.O. Box 751

Portland, OR 97207-0751

1600 SW $4^{\text {th }}$ Avenue, Suite 400
Portland, OR 97201
503-725-9530 (voice)

## Table of Contents

Methodology ..... 6
Programming, Training, and Data Collection ..... 6
Response Rate and Sampling Error ..... 8
Survey Findings ..... 14
Procurement ..... 14
Planning ..... 23
Disposal ..... 28
Leftovers ..... 37
Food Preparation, Use and Management ..... 40

## I ndex of Tables and Figures

Table 1: Survey Sample Disposition Codes ..... 7
Table 2: Respondent Demographics - Unweighted ( $\mathrm{N}=486$ ) ..... 8
Table 3: Weights for Age Group, Household Type and Urban/Rural - with Imputed Values, Unweighted ( $\mathrm{N}=486$ ) ..... 12
Table 4: Places Households Purchase or Get Food to Eat at Home ..... 14
Table 5: Shopping Locations across Urban and Rural Households ..... 15
Figure 1: Frequency of Shopping at Grocery Stores ..... 16
Figure 2: Frequency of Shopping at Farmers Markets ..... 16
Figure 3: Money Spent on Food \& Beverages Eaten at Home Each Week ..... 17
Figure 4: Money Spent on Food \& Beverages Eaten Away from Home Each Week ..... 17
Table 6: Money Spent on Food and Beverages Eaten Away from Home Each Week across Urban and Rural Households ..... 17
Figure 5: Frequency Ratings of Shopping Behaviors ..... 18
Table 7: Shopping Behaviors by Money Spent on Food and Beverages Eaten at Home Each Week ..... 19
Figure 6: Ratings of Food Purchasing Behaviors ..... 20
Figure 7: Days of the Week Households Usually Shop for Food ..... 21
Figure 8: Estimated Number of Days Each Week Households Usually Shop for Food ..... 21
Figure 9: Grocery Shopping Is a Hassle ..... 22
Figure 10: Frequency of Checking to See What Food Already Have Before Shopping ..... 23
Figure 11: Frequency of Estimating How Much of Each Item Need to Buy Before Shopping ..... 24
Figure 12: Proportion of Main Meals Planned Ahead of Time Each Week ..... 25
Figure 13: Household Eats Similar Meals Each Week ..... 25
Figure 14: Create Meals Based on What is on Hand ..... 26
Figure 15: Desire to Eat More Healthily ..... 26
Table 8: Desire to Eat More Healthily across Urban and Rural Respondents ..... 27
Figure 16: Proportion of Food Thrown Away or Composted that Could Be Avoided ..... 28
Table 9: Amount of Food Waste That Could Be Avoided by Household Type ..... 28
Figure 17: Feel Less Guilty about Throwing Away Food Left in the Fridge a Long Time ..... 29
Figure 18: Household Should Reduce Amount of Food Thrown Away ..... 29
Table 10: Respondent Demographics for Households That Should Reduce the Amount of Food They Throw Away ..... 30
Figure 19: Ease of Reducing the Amount of Food That Goes to Waste ..... 31
Figure 20: Food Thrown Away or Composted Relative to the Average American ..... 32
Table 11: Food Thrown Out or Composted Relative to the Average American by Household Type ..... 32
Table 12: Approach to Foods That Have Passed the "Use by," "Sell by," or "Best by" Date has Passed ..... 33
Table 13: Respondent Demographics for Households that Throw Away that have Passed the "Use by," "Sell by," or "Best by" Date ..... 34
Table 14: What Households Generally Do with Eggs or Dairy after the "Use by," "Sell by," or "Best by" Date Has Passed ..... 35
Figure 21: Frequency of Fridge Cleaning ..... 36
Table 15: Frequency of Fridge Cleaning across Urban and Rural Respondents ..... 36
Figure 22: Frequency for Ways in Which Leftovers Are Handled ..... 37
Table 16: Ways in Which Leftovers are Handled across Urban and Rural Households ..... 38
Figure 23: Frequency of Behaviors Associated with Leftovers ..... 39
Table 17: Frequency of Freezing Leftovers That Will Not Be Eaten in Time across Urban and Rural Households ..... 39
Figure 24: Frequency of Food Preparation, Use and Management Behaviors ..... 40
Table 18: Frequency of Managing Food in the Refrigerator across Urban and Rural Households ..... 41
Figure 25: Always Eat Food Stored in the Freezer ..... 41
Figure 26: Work and Social Life Make Managing Food Difficult ..... 42
Table 19: Work and Social Life Make Managing Food Difficult across Urban and Rural Respondents ..... 42

## Methodology

The Portland State University (PSU) Survey Research Lab (SRL) conducted a phone survey of Oregon households to better understand how they purchase, use and dispose of food. These results will help the Oregon Department of Environmental Quality (DEQ) develop programs to better manage food and leftovers, especially wasted food. The survey was conducted from July 7, 2017 to July 24, 2017, and resulted in a total of 486 completed surveys. This phone survey is one of four components of a larger study being conducted by PSU's Community Environmental Services. This report contains preliminary analyses of the phone survey responses, but further analyses will be done after combining them with responses from a similar survey with participants who complete a kitchen diary component of the larger study.

## Programming, Training, and Data Collection

SRL, PSU Community Environmental Services (CES), and DEQ reviewed existing surveys, including those from the National Resources Defense Council (NRDC, United States) and the Waste \& Resources Action Programme (WRAP, United Kingdom), in order to develop the Oregon Wasted Food Statewide Survey. The statewide household survey is one task within a larger, multitask research project. Survey item selection was based on the goal of contributing to the following overall project research questions:

- What are perceived barriers to reducing wasted food?
- What are perceived reasons for wasted food?
- What habits or behaviors do households engage in that promote or avoid wasting of food?
- What level of knowledge do people have about ways to reduce food waste?
- What beliefs, attitudes, or values are related to food waste behaviors?

The complete survey script can be found in Appendix A. The survey instrument was programmed in Voxco Virtual Call Center (VCC) Computer Assisted Telephone Interviewing (CATI) software, and internal testing was conducted prior to implementation to ensure the appropriate wording of questions, the correct functioning of all skip patterns, and the accurate recording of data.

Twenty interviewers were trained to conduct the survey. The project training included DEQ and CES staff, the SRL Senior Research Assistant, three interview coordinators, and the interviewers. DEQ and CES staff gave an overview of the background and purpose of the survey to provide the interviewers with the context within which the survey was being conducted. This was followed by a round-table review of the survey in order to review the survey items and clarify data needs as they relate to the items. Finally, interviewers participated in online practice of the survey before live calling began.

Calls were made from 3 pm to 9 pm Monday through Friday, 10 am to 6 pm on Saturdays, and 12 pm to 8 pm on Sundays. Interview coordinators provided on-site monitoring and supervision during all calling hours to ensure the highest quality data collection, as well as accurate data entry. For quality assurance purposes, the interview coordinators monitored interviewers live, which involved the coordinator patching into the telephone conversation to listen to the interviewer conducting the survey, as well as viewing interviewers' input of the data being collected. The CATI software allowed the coordinator to remotely view a live interview on their computer screen to observe in real-time, without disturbing or distracting the interviewer. Additional quality assurance checks were conducted by the Project Manager by periodically reviewing the collected data.

In order to monitor survey progress, status reports were prepared during calling. The status report provides a summary of the dispositions of all the phone number records included in the sample. The records are divided into active and resolved, and these are further subdivided into call disposition codes (see Table 1). Resolved records are those that have been finalized and do not need to be called back because a survey was completed, or a completed survey was not possible (i.e., a fax machine, non-working numbers, nonresidential, and call blocking). Resolved records also include respondents who could not complete the survey due to language or disability barriers, and respondents who requested that their number be removed from the list or otherwise were completely unwilling to participate (i.e., "never call back" or "hard refusal"). Active records are those for which a completed survey could still be possible, including refusals that are considered "soft" in that the respondent refused in a less definitive manner (e.g., "not right now" or "I don't think so") and those for which a callback had been scheduled, but not completed by the time the calling ended due to achieving the necessary completes.

Table 1: Survey Sample Disposition Codes

| Disposition Codes: Resolved Records [sorted in descending order] | Count | Percent of Resolved | Percent of Total |
| :---: | :---: | :---: | :---: |
| Non-Working, Disconnected Number, Temporarily Out of Service | 1,208 | 35.8\% | 19.7\% |
| Completed I nterviews | 486 | 14.4\% | 7.9\% |
| Call Blocking, Technological Barrier | 389 | 11.5\% | 6.3\% |
| Hard Refusal | 310 | 9.2\% | 5.1\% |
| Nonresidential | 305 | 9.0\% | 5.0\% |
| Never Call Back | 282 | 8.4\% | 4.6\% |
| Does Not Live in Oregon | 132 | 3.9\% | 2.2\% |
| Language Barrier | 98 | 2.9\% | 1.6\% |
| No Household Member 18 Years or Older (e.g., youth cell phone) | 52 | 1.5\% | 0.8\% |
| Fax, Data Line | 49 | 1.5\% | 0.8\% |
| Suspend Without Callback | 31 | 0.9\% | 0.5\% |
| Disability Barrier | 22 | 0.7\% | 0.4\% |
| Group Home | 9 | 0.3\% | 0.1\% |
| Cell Phone Refusal | 2 | 0.1\% | <0.1\% |
| Removed Due to Data Quality Issues | 2 | 0.1\% | <0.1\% |
| Total Resolved Records | 3,377 | 100.0\% | 55.1\% |
| Disposition Codes: Active Records [sorted in descending order] | Count | Percent of Active | Percent of Total |
| Answering Machine (residential unknown) | 1,257 | 45.7\% | 20.5\% |
| Residential Answering Machine | 445 | 16.2\% | 7.3\% |
| No Answer | 440 | 16.0\% | 7.2\% |
| Immediate Hang Up (English) | 315 | 11.5\% | 5.1\% |
| Soft Refusal | 200 | 7.3\% | 3.3\% |
| Busy | 55 | 2.0\% | 0.9\% |
| Specific Callback | 23 | 0.8\% | 0.4\% |
| Generic Callback | 16 | 0.6\% | 0.3\% |
| Total Active Records | 2,751 | 100.0\% | 44.9\% |
| Total Sample | 6,128 | 100.0\% | 100.0\% |

## Response Rate and Sampling Error

The response rate was calculated two different ways. It was first calculated using all eligible numbers in the denominator. That included the records coded as a completed interview, cell phone refusal, language or disability barrier, call blocking or technological barrier, hard refusal, never call back, suspend without callback, completes with data quality issues, and all active numbers. This calculation resulted in a response rate of $11.11 \%$. The second response rate was based on only resolved records, representing the proportion of all resolved records that were actually completed surveys. This second calculation resulted in a response rate of $14.39 \%$.

A refusal rate was also calculated. The numerator included any numbers classified as suspend without callback, hard refusal, never callback, soft refusal, cell phone refusal, or immediate hang up. The denominator was calculated using all eligible numbers (same as above). The refusal rate was $26.07 \%$.

Additionally, the SRL calculated the sampling error, also known as the margin of error. Sampling error is a statistic that represents the level of accuracy in the results and it is desirable to achieve a $\pm 5 \%$ sampling error or lower. Once a survey is completed, the sampling error can be calculated based on a $95 \%$ confidence interval, a total of $1,533,430$ Oregon households as the population, and 486 completed surveys. Based on those figures, the sampling error for this survey was $\pm 4.44 \%$, indicating that the accuracy of the data is within the desired limit.

## Respondent Characteristics

Table 2 presents a summary of the demographic characteristics of the survey respondents.

Table 2: Respondent Demographics - Unweighted (N=486)

| Gender [in descending order] | Count | Percent |
| :--- | ---: | ---: |
| Female | 294 | $60.5 \%$ |
| Male | 186 | $38.3 \%$ |
| Other | 1 | $0.2 \%$ |
| Refused | 5 | $1.0 \%$ |
| Age Group | Count | Percent |
| $18-34$ Years Old | 67 | $13.8 \%$ |
| $35-64$ Years Old | 252 | $51.9 \%$ |
| 65 Years of Age or Older | 145 | $29.8 \%$ |
| Refused | 22 | $4.5 \%$ |
| Highest Level of Education | Count | Percent |
| Elementary or some high school (no diploma or GED) | 13 | $2.7 \%$ |
| High school diploma or GED | 75 | $15.4 \%$ |
| Some college, but no degree | 139 | $28.6 \%$ |
| Associate's degree (2-year degree, AA, AS, etc.) | 64 | $13.2 \%$ |
| Bachelor's degree (4-year degree, BA, BS, etc.) | 95 | $19.5 \%$ |
| Master's degree or higher | 97 | $20.0 \%$ |
| Refused | 3 | $0.6 \%$ |

Table 2: Respondent Demographics - Unweighted (N=486)

| Total Household Income for 2016 | Count | Percent |
| :---: | :---: | :---: |
| Under \$10,000 | 18 | 3.7\% |
| \$10,000 to \$24,999 | 49 | 10.1\% |
| \$25,000 to \$49,999 | 97 | 20.0\% |
| \$50,000 to \$74,999 | 81 | 16.7\% |
| \$75,000 to \$99,999 | 58 | 11.9\% |
| \$100,000 to \$149,999 | 75 | 15.4\% |
| \$150,000 to \$199,999 | 28 | 5.8\% |
| \$200,000 or More | 19 | 3.9\% |
| Don't know or refused | 61 | 12.6\% |
| Race or Ethnicity [in descending order] [select all that apply; percentages sum to $>100 \%$ ] | Count | Percent |
| White or Caucasian | 435 | 89.5\% |
| American Indian or Alaska Native | 26 | 5.3\% |
| Hispanic, Latino/a, or Spanish | 24 | 4.9\% |
| Black or African American | 15 | 3.1\% |
| Asian or Asian American | 8 | 1.6\% |
| Other | 3 | 0.6\% |
| Native Hawaiian or Other Pacific Islander | 2 | 0.4\% |
| Refused | 11 | 2.3\% |
| Number of People Living in Household | Count | Percent |
| 1 person | 78 | 16.0\% |
| 2 people | 188 | 38.7\% |
| 3 people | 86 | 17.7\% |
| 4 people | 62 | 12.8\% |
| 5 people | 34 | 7.0\% |
| 6 people | 16 | 3.3\% |
| 7 people | 8 | 1.6\% |
| 8 people | 4 | 0.8\% |
| 9 people or more | 5 | 1.0\% |
| Refused | 5 | 1.0\% |
| Number of Other Household Members 0 to 5 Years | Count | Percent |
| None | 436 | 89.7\% |
| 1 | 31 | 6.4\% |
| 2 | 14 | 2.9\% |
| 3 | 2 | 0.4\% |
| 4 | 1 | 0.2\% |
| Refused | 2 | 0.4\% |

Table 2: Respondent Demographics - Unweighted (N=486)

| Number of Other Household Members 6 to 12 Years | Count | Percent |
| :---: | :---: | :---: |
| None | 412 | 84.8\% |
| 1 | 41 | 8.4\% |
| 2 | 23 | 4.7\% |
| 3 | 8 | 1.6\% |
| Refused | 2 | 0.4\% |
| Number of Other Household Members 13 to 17 Years | Count | Percent |
| None | 404 | 83.1\% |
| 1 | 61 | 12.6\% |
| 2 | 18 | 3.7\% |
| 3 | 1 | 0.2\% |
| Refused | 2 | 0.4\% |
| Number of Other Household Members 18 to 64 Years | Count | Percent |
| None | 181 | 37.2\% |
| 1 | 154 | 31.7\% |
| 2 | 86 | 17.7\% |
| 3 | 33 | 6.8\% |
| 4 | 20 | 4.1\% |
| 5 | 4 | 0.8\% |
| 6 | 3 | 0.6\% |
| 7 or more | 3 | 0.6\% |
| Refused | 2 | 0.4\% |
| Number of Other Household Members 65 Years of Age or Older | Count | Percent |
| None | 365 | 75.1\% |
| 1 | 101 | 20.8\% |
| 2 | 16 | 3.3\% |
| 3 | 1 | 0.2\% |
| Refused | 2 | 0.4\% |
| Household Type [in descending order] | Count | Percent |
| Two or more adults without children | 254 | 52.3\% |
| One or more adults with children | 147 | 30.2\% |
| Adult living alone | 78 | 16.0\% |
| Refused | 7 | 1.4\% |
| Geographic Area [in descending order] | Count | Percent |
| Urban | 326 | 67.1\% |
| Rural | 160 | 32.9\% |

Table 2: Respondent Demographics - Unweighted (N=486)

| Household Phone Types [in descending order] | Count | Percent |
| :--- | ---: | ---: |
| Both cell phones and landlines | 254 | $52.3 \%$ |
| Only cell phones | 206 | $42.4 \%$ |
| Only landlines | 19 | $3.9 \%$ |
| Refused | 7 | $1.4 \%$ |
| Cell Phone Used to Complete Survey | Count | Percent |
| Yes | 299 | $61.5 \%$ |
| No | 184 | $37.9 \%$ |
| Refused | 3 | $0.6 \%$ |

## Weighting

Throughout data collection, completed surveys were tracked to monitor the distribution of surveys relative to the proportion expected in the population based on responses to survey items for age and household type (i.e., adult lives alone, one or more adults with children, two or more adults without children). To allow for group comparisons, rural areas within Oregon were oversampled to secure a sufficient sample size; therefore, the distribution across urban or rural areas was also tracked based on each respondent's reported zip code.

After data collection was completed, raked weights were used to adjust the sample to be proportional to the distributions in the population. To create the weights, US Census American Community Survey (ACS) estimates for $2015{ }^{1}$ were used to determine the proportions for the Oregon population on age, gender and household type. The designation of urban or rural zip codes was based on data published by the Oregon Office of Rural Health at the Oregon Health \& Science University ${ }^{2}$. Although the distribution in the population is $81.4 \%$ urban and $17.6 \%$ rural, oversampling for rural resulted in a distribution different than the population, which needed to be adjusted through weighting.

Weights were calculated by dividing the percentage found in the population by the percentage of completed surveys for each category within a given demographic variable. Table 3 (next page) presents all of the individual variable weights. When weighting is used, a missing value in any of the variables results in a 0.0 weight for that record. Any record with a 0.0 weight would not be included in analyses when weighted data is used. Therefore, in order to include all records in the analysis, missing values for age and household type (no data was missing for urban/rural) were replaced using Multivariate Imputation by Chained Equations (MICE) prior to weighting.

[^0]| Age Group | Counts | Survey Percent | Population Percent | Weight |
| :---: | :---: | :---: | :---: | :---: |
| 18 to 34 Years | 89 | 18.3\% | 29.3\% | 1.6011 |
| 35 to 64 Years | 252 | 51.9\% | 51.0\% | 0.9836 |
| 65 Years or Older | 145 | 29.8\% | 19.7\% | 0.6603 |
| Household Type | Counts | Survey Percent | Population Percent | Weight |
| Adult living alone | 79 | 16.3\% | 27.9\% | 1.7164 |
| One or more adults with children | 147 | 30.2\% | 28.8\% | 0.9522 |
| Two or more adults without children | 260 | 53.5\% | 43.3\% | 0.9660 |
| Urban/ Rural Designation | Counts | Survey Percent | Population Percent | Weight |
| Urban | 326 | 67.1\% | 81.4\% | 1.2135 |
| Rural | 160 | 32.9\% | 17.6\% | 0.5346 |

All of the frequencies (i.e., counts and percentages) presented in the tables and figures within this report are based on data weighted for those three variables. However, for the urban-rural comparisons, the weighting approach was adjusted. When conducting statistical tests across groups, it is important to ensure that the sample size is large enough to detect a significant difference, if one exists. Leaving the urban-rural weighting on for these comparisons would have resulted in an insufficient sample size for the rural areas of Oregon. However, it is important to maintain the adjustment for the disproportional age groups and household types. For those reasons, the data was weighted to adjust for only age and household type for the urban-rural comparisons.

## Notes on This Report and the Analytic Approach

Below each table and figure found in this report, the exact wording of the survey item and the sample size of respondents are presented. For most of the survey items, the data are summarized for the entire group of 486 respondents who participated in the survey, which is denoted by " N " to indicate the full sample. Other survey items are summarized for a subset of respondents who, based on a skip pattern in the survey, were the only ones asked those items. In those instances, the sample size will be denoted by " $n$ " to indicate a subset of the full sample.

For survey items presented in figures, the percentages of respondents endorsing each option are always presented across the entire range from $0 \%$ to $100 \%$. This is done so that all of the figures throughout the report can be compared both numerically and visually. The size of any bar across all graphs will be able to be compared to the size of the bar in any other graph to understand the proportion of respondents endorsing various survey item responses. That means that a bar that represents $30 \%$ of respondents will be the same size no matter what figure the reader is looking at, ensuring consistency of interpretation across all survey items.

The analysis plan for this survey project included comparisons of respondents living in urban and rural areas in Oregon, as well as some comparisons across selected items. Significance testing was done using the chisquare test due to all of the survey items involving categorical and ordinal data. The chi-square test considers whether the array of responses (e.g., a two-by-three table of households in urban vs. rural geographic areas
of Oregon being compared on a survey item with three possible responses) is different than would be expected by chance.

Chi square significance tests result in a statistic (i.e., $\chi^{2}$ ) and a probability value. Probability is denoted with a $p$ and is considered statistically significant if it is less than $5 \%$ (a commonly accepted level of significance). In this report, significance is listed as $p<.05$ or $p<.01$ or $p<.001$, each of which indicates the level of probability that the difference is due to chance rather than being due to true differences across the groups. For example, a significance test with a $p<.05$ means that the difference between the groups has a less than $5 \%$ probability of being due to chance. Alternatively, it means that there is a $95 \%$ probability that the difference between the two groups is due to something other than chance variation (i.e., people behave differently across the groups).

## Survey Findings

For the presentation of findings from the statewide household survey, the survey items have been grouped into the following topics:

- Procurement
- Planning
- Disposal
- Leftovers
- Food preparation, use and management

For many of the survey items, respondents were asked to speak on behalf of their entire household. At the beginning of the survey, they were told that household means "anyone living in your home that you usually buy or cook food with or for." Respondents who lived alone were told to consider themselves the household. As a reminder, all of the frequencies (i.e., counts and percentages) presented in the tables and figures are based on data weighted on urban/rural area, age (18-34 years, 35-64 years, 65 years or more) and household type (adult lives alone, household with children, household without children). When statistical tests were conducted comparing urban and rural households, the data was weighted to adjust for only age and household type.

## Procurement

Respondents were asked to indicate whether or not they purchase or get food to eat at home across nine potential places. Respondents often reported shopping at multiple places; therefore, the percentages in Table 4 add up to more than $100 \%$. The most common response was grocery stores ( $99.3 \%$ ), followed by superstores $(61.4 \%)$, farmers markets ( $55.8 \%$ ), and their backyard garden or local garden $(45.4 \%)$.

| Table 4: Places Households Purchase or Get Food to Eat at Home |  |  |
| :--- | :--- | ---: | ---: |
| [sorted in descending order of count] | Count | Percent |
| Grocery stores | 482 | $99.3 \%$ |
| Superstores, like Costco | 299 | $61.4 \%$ |
| Farmers markets | 271 | $55.8 \%$ |
| Your backyard garden or local garden | 220 | $45.4 \%$ |
| Corner stores or mini-marts | 108 | $22.3 \%$ |
| CSA (community-supported agriculture) | 64 | $13.2 \%$ |
| Food pantries | 40 | $8.1 \%$ |
| Online meal delivery (e.g., GrubHub, Blue Apron, restaurants) | 32 | $6.6 \%$ |
| Online grocery deliver (e.g., Amazon.com, Safeway.com) | 25 | $5.1 \%$ |
| Other | 1 | $0.2 \%$ |

[^1]Chi-square tests were conducted to determine if differences in purchasing food at each of those locations were statistically significant for urban and rural households. Table 5 shows that three of the purchasing locations were significantly different across urban and rural areas. Urban households were more likely to purchase food to eat at home from Superstores ( $X^{2}=8.655, p<.01$ ), but rural households were more likely to purchase food from Farmers Markets ( $X^{2}=4.135, p<.05$ ) and more likely to get food from their Backyard Garden or Local Garden ( $X^{2}=6.712, p<.05$ ).

Table 5: Shopping Locations across Urban and Rural Households
Geographic Area

| Places Households Purchase or Get Food to Eat at Home | Urban | Rural |
| :--- | :---: | ---: |
| Grocery stores | $99.4 \%$ | $98.7 \%$ |
| Superstores, like Costco** | $63.7 \%$ | $49.7 \%$ |
| Farmers markets* | $54.1 \%$ | $63.9 \%$ |
| Your backyard garden or local garden* | $42.9 \%$ | $55.5 \%$ |
| Corner stores or mini-marts | $21.5 \%$ | $25.2 \%$ |
| CSA (community-supported agriculture) | $12.4 \%$ | $16.8 \%$ |
| Food pantries | $7.9 \%$ | $10.3 \%$ |
| Online meal delivery (e.g., GrubHub, Blue Apron, restaurants) | $6.9 \%$ | $5.2 \%$ |
| Online grocery deliver (e.g., Amazon.com, Safeway.com) | $5.7 \%$ | $2.6 \%$ |

*p<. $055^{* *} \mathrm{p}<.01{ }^{* * *} \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
Q1: I'm going to read a list of possible places where your household may purchase or get food to eat at home. Please tell me all that apply by saying "yes" or "no" after each.
Unweighted N=486

Respondents who reported purchasing food at a grocery store or farmers market were asked a follow-up question regarding the frequency with which they shop at each of those locations. As can be seen in Figure 1, slightly over half of the respondents who reported shopping at grocery stores do so 1 to 2 Times per Week ( $56.6 \%$ ), and slightly over one-quarter ( $27.0 \%$ ) shop there 3 or More Times per Week. Figure 2 shows that the majority of respondents who reported shopping at farmers markets do so Less than Once per Week ( $64.4 \%$ ), with another one-third ( $33.0 \%$ ) shopping there 1 to 2 Times per Week.

Figure 1: Frequency of Shopping at Grocery Stores


Q1A: On average, how often does your household purchase or get food from a grocery store?
Unweighted $\mathrm{n}=482$

Figure 2: Frequency of Shopping at Farmers Markets


Q1B: On average, how often does your household purchase or get food from a farmers market?
Unweighted $\mathrm{n}=271$

The frequency of shopping at either grocery stores or farmers markets did not differ significantly across urban and rural households.

All respondents were asked how much money they spend on food and beverages eaten at home and eaten away from home each week. Figures 3 and 4 show that the distribution of spending differs across food and beverages at home compared to away from home. The majority of respondents spend either $\$ 101$ to $\$ 200$ ( $42.8 \%$ ) or $\$ 100$ or Less ( $35.2 \%$ ) on food and beverages eaten at home each week; whereas, the vast majority of households spend $\$ 100$ or Less ( $79.6 \%$ ) each week on food and beverages eaten away from home.

Figure 3: Money Spent on Food \& Beverages Eaten at Home Each Week


D1A: Approximately how much money does your household spend on food and beverages eaten AT HOME each week? Your best guess is fine.
Unweighted $\mathrm{N}=486$

Figure 4: Money Spent on Food \& Beverages Eaten Away from Home Each Week


D1B: Approximately how much money does your household spend on food and beverages eaten AWAY FROM HOME each week? Your best guess is fine.
Unweighted $N=486$

Chi-square tests were conducted to determine if differences in money spent on purchasing food and beverages each week were statistically significant for urban and rural households. Although the difference for money spent on food and beverages eaten at home each week did not differ significantly, Table 6 shows that urban households were more likely to spend $\$ 101$ to $\$ 200$ and rural households were more likely to spend 0 to $\$ 100$ each week on food and beverages eaten away from home ( $X^{2}=8.251, p<.05$ ).

# Table 6: Money Spent on Food and Beverages Eaten Away from Home Each Week across Urban and Rural Households 

Money Spent Each Week on Food Eaten away from Home

| Geographic Area* | $\$ 0-\$ 100$ | $\$ 101-\$ 200$ | $\$ 201-\$ 300$ | More than |
| :--- | ---: | ---: | ---: | ---: |
| Urban | $79.6 \%$ | $14.6 \%$ | $3.4 \%$ | $2.5 \%$ |
| Rural | $89.1 \%$ | $9.5 \%$ | $1.4 \%$ | $0.0 \%$ |

[^2]All respondents were asked to rate how often their household does three things related to shopping:

- Buy more of a product than you were planning to because it is on sale.
- Buy something unplanned because it looks good at the time.
- Buy food in larger quantities than desired, due to the way food is packaged.

Each behavior was rated on a 5-point scale Never to Always. As can be seen in Figure 5, the most common responses across all three items were Sometimes ( $43.6 \%$ to $35.8 \%$ ) and Rarely ( $26.8 \%$ to $21.0 \%$ ). This suggests that Oregonians do not commonly buy more of a product due to looking good at the time, being on sale, or packaging.

Figure 5: Frequency Ratings of Shopping Behaviors


When shopping for food, how often does your household do the following:
Q4A: Buy more of a product than you were planning to because it is on sale.
Q4B: Buy something unplanned because it looks good at the time.
Q4C: Buy food in larger quantities than desired due to the way food is packaged.
Unweighted $\mathrm{N}=486$
None of these items showed statistically significant differences across urban and rural households.

Chi-square tests were also conducted to see if these shopping behaviors differed across households based on the amount they spend each week on food and beverages. No significant differences were found based on food and beverages eaten away from home. However, two of the items showed significant differences across spending on food and beverages eaten at home. Table 7 presents the distribution of responses for money spent across all three of the shopping behavior items. Households that spend $\$ 100$ or less on food and beverages eaten at home each week are significantly less likely to Buy Something Unplanned Because It Looks Good than households that spend $\$ 101$ to $\$ 200$ each week, while households that spend $\$ 201$ or more each week are less influenced by how something looks ( $X^{2}=39.468, p<.001$ ). A similar trend occurred regarding Buying Food in Larger Quantities Due to Packaging ( $X^{2}=24.104, p<.05$ ).

Table 7: Shopping Behaviors by Money Spent on Food and Beverages Eaten at Home Each Week

## Buy More of a Product Because It Is on Sale

| Money Spent Each Week on Food <br> Eaten at Home | Never | Rarely | Sometimes | Often | Always |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 0-\$ 100$ | $15.5 \%$ | $22.7 \%$ | $41.2 \%$ | $17.0 \%$ | $3.6 \%$ |
| $\$ 101-\$ 200$ | $13.0 \%$ | $21.8 \%$ | $43.0 \%$ | $15.0 \%$ | $7.3 \%$ |
| $\$ 201-\$ 300$ | $8.9 \%$ | $17.9 \%$ | $58.9 \%$ | $14.3 \%$ | $0.0 \%$ |
| More than $\$ 300$ | $15.2 \%$ | $18.2 \%$ | $33.3 \%$ | $30.3 \%$ | $3.0 \%$ |
| Money Spent Each Week on Food | Buy Something Unplanned Because it Looks Good |  |  |  |  |
| Eaten at Home*** | Never | Rarely | Sometimes | Often | Always |
| $\$ 0-\$ 100$ | $6.7 \%$ | $35.1 \%$ | $38.1 \%$ | $15.5 \%$ | $4.6 \%$ |
| $\$ 101-\$ 200$ | $1.5 \%$ | $20.1 \%$ | $39.7 \%$ | $29.4 \%$ | $9.3 \%$ |
| $\$ 201-\$ 300$ | $3.6 \%$ | $21.4 \%$ | $60.7 \%$ | $12.5 \%$ | $1.8 \%$ |
| More than $\$ 300$ | $5.7 \%$ | $28.6 \%$ | $45.7 \%$ | $11.4 \%$ | $8.6 \%$ |
| Money Spent Each Week on Food | Buy Food | in Larger Quantities Due to Packaging |  |  |  |
| Eaten at Home* | Never | Rarely | Sometimes | Often | Always |
| $\$ 0-\$ 100$ | $25.0 \%$ | $25.5 \%$ | $35.9 \%$ | $12.0 \%$ | $1.6 \%$ |
| $\$ 101-\$ 200$ | $15.5 \%$ | $26.9 \%$ | $32.1 \%$ | $20.7 \%$ | $4.7 \%$ |
| $\$ 201-\$ 300$ | $14.3 \%$ | $35.7 \%$ | $41.1 \%$ | $5.4 \%$ | $3.6 \%$ |
| More than $\$ 300$ | $26.5 \%$ | $17.6 \%$ | $44.1 \%$ | $11.8 \%$ | $0.0 \%$ |

[^3]Respondents were asked to rate how strongly they agreed or disagreed with three statements about purchasing food. Figure 6 presents the distribution of ratings for those three items. Each statement was rated on a 5-point scale from Disagree to Agree. The distributions show that the majority of households are using Date Labels as a Key Source of Information When Purchasing Dairy or Meat ( $74.4 \%$ Agree), are not Buying More Than They Need Because They Like Their Fridge to Be Full ( $80.0 \%$ Disagree), and are Not Buying More Than They Need in Case There Are Guests (59.2\% Disagree).

Figure 6: Ratings of Food Purchasing Behaviors


How strongly do you agree or disagree with the following statements?
Q15K: Date labels are a key source of information I use when purchasing dairy and meat.
Q15J: I buy more than I need because I like my fridge to be full.
Q15I: I buy more than I need in case there are unexpected guests.
Unweighted $N=486$
These ratings of food-purchasing behaviors did not differ significantly across urban and rural households.

Respondents were asked to indicate which days of the week their household usually shops for food. Each day that applied could be selected, so the percentages in Figure 7 add up to more than $100 \%$. Interestingly, there is not a wide variation across the days of the week, ranging from $46.8 \%$ shopping on Saturdays to $31.9 \%$ shopping on Thursdays. Nearly one-fifth of respondents ( $15.2 \%$ ) did not know what days their household usually shops throughout the week.

Figure 7: Days of the Week Households Usually Shop for Food


Q5: On which days of the week does your household usually shop for food?
Unweighted $\mathrm{N}=486$
Chi-square tests comparing urban and rural households on shopping across the days of the week revealed a significant difference for Friday only ( $X^{2}=4.780, p<.05$ ), with rural households $(47.1 \%)$ being more likely to shop that day than urban households ( $36.7 \%$ ).

Another way to look at these data is to identify the number of days each week households usually shop for food. Excluding people who did not know which days of the week they shopped, Figure 8 shows that more households shop one ( $28.8 \%$ ) or two ( $26.6 \%$ ) days per week, with nearly one-fifth of households (18.1\%) shopping all seven days of the week. On average, households shop 3.1 days per week.

Figure 8: Estimated Number of Days Each Week Households Usually Shop for Food


Q5: On which days of the week does your household usually shop for food? Recalculated into number of days each week households usually shop, assuming that shopping usually occurs on each of the days mentioned. This may overestimate the number of days that people actually shop.
Unweighted $\mathrm{N}=486$
The number of days people usually shop each week did not differ significantly across urban and rural households.

Respondents were asked to rate how strongly they agreed or disagreed with a statement about grocery shopping being a hassle. Figure 9 presents the distribution of ratings, suggesting that approximately half of the respondents do not find grocery shopping to be a hassle ( $41.6 \%$ Disagree, $8.0 \%$ Somewhat Disagree) and slightly less than half find grocery shopping to be a hassle ( $30.1 \%$ Agree, 11.9\% Somewhat Agree).

Figure 9: Grocery Shopping Is a Hassle


How strongly do you agree or disagree with the following statements? Q15G: I find grocery shopping to be a hassle.
Unweighted $\mathrm{N}=486$
The comparison of urban and rural households did not reveal a significant difference in the agreement rating.

## Planning

To understand the degree to which households plan before shopping for food, respondents were asked how often they check to see what they already have. Figure 10 shows that the majority of households either Always ( $48.5 \%$ ) or Often ( $31.6 \%$ ) check their supply of food before they go shopping. This shopping behavior did not differ significantly across urban and rural households.

Figure 10: Frequency of Checking to See What Food Already Have Before Shopping


Q2: Before shopping for food, how often does your household check to see what you already have? Unweighted $\mathrm{N}=486$

The respondents who reported Never, Rarely or Sometimes checking on the food they have before going shopping were asked if they would like to do that more often. Those 95 respondents were virtually split in half, with $49.4 \%$ reporting that they would not like to do that more often, and $46.9 \%$ reporting that they would like to do that more often. This did not differ significantly across urban and rural households.

Respondents were also asked if they estimate how much they need to buy of each item and very similar results were found. Figure 11 shows that the majority of households either Always (45.4\%) or Often (30.0\%) estimate item quantity before shopping. This did not differ significantly across urban and rural households.

Figure 11: Frequency of Estimating How Much of Each Item Need to Buy Before Shopping


Q3: Before shopping for food, how often does our household estimate how much of each item you need to buy? Unweighted $\mathrm{N}=486$

Again, the respondents who reported Never, Rarely or Sometimes estimating how much they need to buy before going shopping were asked if they would like to do that more often. Of those 118 respondents, slightly more than half $(55.0 \%)$ reported that they would not want to do more of that, while slightly less than half $(43.5 \%)$ reported that they would like to do that more often. Urban and rural households did not differ significantly on this rating.

Respondents were asked how many of their main meals they plan ahead of time on a weekly basis. Figure 12 shows that the majority of households either plan A Few of Them (35.6\%) or Most of Them (35.1\%). This did not differ significantly across urban and rural households.

Figure 12: Proportion of Main Meals Planned Ahead of Time Each Week


Q6: On a weekly basis, how many of your main meals do you plan ahead of time? Unweighted $\mathrm{N}=486$

Any respondents who did not report planning almost all of their main meals ahead of time were asked if they would like to do that more often. Of those 398 respondents, slightly more than half ( $54.2 \%$ ) reported that they would not want to do more of that, while slightly less than half $(45.4 \%)$ reported that they would like to do that more often. Urban and rural households did not differ significantly.

Respondents were asked to rate how strongly they agree or disagree with a statement about eating similar meals each week. Figure 13 shows that over half ( $57.1 \%$ ) of the households agree that they eat similar meals each week. This did not differ significantly across urban and rural households.

Figure 13: Household Eats Similar Meals Each Week


How strongly do you agree or disagree with the following statements? Q15C: My household eats similar meals each week.
Unweighted $\mathrm{N}=486$

Two additional items asked respondents to rate how strongly they agree or disagree with statements related to meals and planning. Figure 14 shows that the majority of households are preparing meals using what is available at the time ( $83.7 \%$ ), which did not differ significantly across urban and rural households.

Figure 14: Create Meals Based on What is on Hand


How strongly do you agree or disagree with the following statements?
Q15D: The person in my household who most often prepares meals is able to create meals based on what is on hand.
Unweighted $\mathrm{N}=486$
Figure 15 shows the distribution of ratings on the same agreement scale related to wanting to eat more healthily. Almost half of the respondents $(46.9 \%)$ would like to eat in a more healthy manner, including eating more servings of fresh fruits and vegetables. Almost one-quarter (24.4\%) of respondents disagreed with wanting to eat more healthily.

Figure 15: Desire to Eat More Healthily


How strongly do you agree or disagree with the following statements?
Q15E: I wish I ate more healthily, for example eating more servings of fresh fruits and vegetables.
Unweighted $\mathrm{N}=486$

A chi-square test revealed that urban respondents were less likely to Disagree or Somewhat Disagree and slightly more likely to Agree with this statement than rural respondents ( $X^{2}=9.719, p<.05$ ).

## Table 8: Desire to Eat More Healthily across Urban and Rural Respondents

Desire to Eat More Healthily

|  |  | Neither |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Household Geography* | Disagree | Somewhat <br> Disagree | Agree nor <br> Disagree | Somewhat <br> Agree | Agree |
| Urban | $24.2 \%$ | $3.4 \%$ | $8.9 \%$ | $15.0 \%$ | $48.6 \%$ |
| Rural | $27.3 \%$ | $9.7 \%$ | $8.4 \%$ | $13.0 \%$ | $41.6 \%$ |

* $\mathrm{p}<.05 * * \mathrm{p}<.01$ *** $\mathrm{p}<.001$ no notation: difference across groups was not statistically significant How strongly do you agree or disagree with the following statements?

Q15E: I wish I ate more healthily, for example eating more servings of fresh fruits and vegetables. Unweighted $\mathrm{N}=486$

## Disposal

Respondents were asked a series of questions that address household food disposal. The majority ( $60.8 \%$ ) of respondents reported that their household has a separate container for food and yard waste as part of their garbage and recycling service. Urban households ( $63.3 \%$ ) were significantly more likely to have a separate food and yard waste container than rural households ( $48.4 \% ; X^{2}=9.708, p<.01$ ).

Considering how much food their household throws away or composts in the average week, respondents were asked how much of that they think could be avoided. Figure 16 shows that over half ( $59.6 \%$ ) think they could avoid A Little of the food their household throws out or composts, and another $13.1 \%$ think they could avoid About Half. This did not differ significantly across urban and rural households.

Figure 16: Proportion of Food Thrown Away or Composted that Could Be Avoided


Q9: Considering the food your household throws away or composts in the average week, how much of that do you think could be avoided?
Unweighted $\mathrm{N}=486$
A chi-square test was conducted to determine whether the amount of food waste that could be avoided differed across household type. Adults living alone are more likely to have No Food Waste (i.e., do not compost or throw out food), and households with children are least likely to say they can avoid None of the waste and also most likely to believe they could avoid About Half of the food waste ( $X^{2}=23.169, p<.05$ ).

## Table 9: Amount of Food Waste That Could Be Avoided by Household Type

# Amount of Food Waste That Could Be Avoided 

|  |  |  |  |  | N/A No <br> Food |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Household Type* | None | A Little | About <br> Half | A Lot | All | Waste |
| Adult living alone | $13.5 \%$ | $51.9 \%$ | $10.5 \%$ | $9.0 \%$ | $3.8 \%$ | $11.3 \%$ |
| 2+ Adults WITHOUT Children | $10.1 \%$ | $66.2 \%$ | $11.6 \%$ | $4.0 \%$ | $5.1 \%$ | $3.0 \%$ |
| 1+ Adults WITH Children | $7.1 \%$ | $60.0 \%$ | $18.6 \%$ | $6.4 \%$ | $2.9 \%$ | $5.0 \%$ |

[^4]Two items asked respondents to rate how strongly they agree or disagree with statements related to food disposal. Figure 17 shows the distribution of ratings regarding feeling less guilty about throwing out food that has been in the refrigerator for a long time. The largest proportion of respondents reported Agreeing that they feel less guilty ( $42.7 \%$ ), but nearly one-fifth Disagreed (19.0\%). Urban and rural respondents did not differ significantly on this rating.

Figure 17: Feel Less Guilty about Throwing Away Food Left in the Fridge a Long Time


How strongly do you agree or disagree with the following statements?
Q15A: I feel less guilty about throwing out food that has been in the refrigerator for a long time.
Unweighted $\mathrm{N}=486$
Figure 18 shows the distribution of ratings related to believing that their household should reduce the amount of food they throw away. Similar to the survey item above, although many respondents believe their household should reduce food waste ( $44.3 \%$ ), almost one-quarter ( $23.4 \%$ ) of respondents Disagreed with that statement. There was not a significant difference between urban and rural households on this rating.

Figure 18: Household Should Reduce Amount of Food Thrown Away


[^5]The characteristics of the 281 respondents who reported that they either Agree or Somewhat Agree that their household should reduce the amount of food they throw away are presented in Table 10. The percentages represent the proportion of each demographic subgroup who reported that their households should reduce the amount of food they throw away (e.g., $75.4 \%$ of females and $69.2 \%$ of males reported food thrown away should be reduced). The percentages of each demographic for the full sample of 486 respondents are included for comparison. Those percentages do not add up to $100 \%$ because the respondents who did not provide a response to those demographic items are not included in the table (see Table 1).

Table 10: Respondent Demographics for Households That Should Reduce the
Amount of Food They Throw Away

|  | Household <br> Should Reduce | Full <br> Respondent Gender [in descending order] |
| :--- | ---: | ---: |
| Food Thrown Away |  |  |$\quad$| Sample |
| ---: | ---: | ---: |

Age Group

| $18-34$ Years Old | $71.9 \%$ | $13.8 \%$ |
| :--- | :--- | :--- |
| $35-64$ Years Old | $59.9 \%$ | $51.9 \%$ |
| 65 Years of Age or Older | $49.0 \%$ | $29.8 \%$ |

Total Household Income for 2016

| Under $\$ 10,000$ | $24.7 \%$ | $3.7 \%$ |
| :--- | :--- | :---: |
| $\$ 10,000$ to $\$ 24,999$ | $67.4 \%$ | $10.1 \%$ |
| $\$ 25,000$ to $\$ 49,999$ | $67.3 \%$ | $20.0 \%$ |
| $\$ 50,000$ to $\$ 74,999$ | $51.7 \%$ | $16.7 \%$ |
| $\$ 75,000$ to $\$ 99,999$ | $64.1 \%$ | $11.9 \%$ |
| $\$ 100,000$ to $\$ 149,999$ | $72.6 \%$ | $15.4 \%$ |
| $\$ 150,000$ to $\$ 199,999$ | $64.0 \%$ | $3.5 \%$ |
| $\$ 200,000$ or More | $73.7 \%$ | $3.9 \%$ |
| Household Type |  |  |
| Two or more adults without children | $59.3 \%$ | $52.3 \%$ |
| One or more adults with children | $68.4 \%$ | $30.2 \%$ |
| Adult living alone | $53.1 \%$ | $16.0 \%$ |
| Money Spent on Food Eaten at Home Each Week |  |  |
| $\$ 100$ or Less | $46.3 \%$ | $35.2 \%$ |
| $\$ 101-\$ 200$ | $71.0 \%$ | $42.8 \%$ |
| $\$ 201-\$ 300$ | $64.9 \%$ | $13.6 \%$ |
| More than $\$ 300$ | $68.7 \%$ | $6.6 \%$ |

[^6]Respondents were asked to rate how easy or difficult it would be for them to reduce the amount of food that goes to waste in their household. Figure 19 shows that it would be Very Easy or Somewhat Easy ( $45.2 \%$ ) for a slightly larger proportion of respondents than for which it would be Very Difficult or Somewhat Difficult ( $35.5 \%$ ). Significant differences on this rating were not found across urban and rural households, or across household type.

Figure 19: Ease of Reducing the Amount of Food That Goes to Waste


Q14: How easy or difficult do you think it would be for you, personally, to reduce the amount of food that goes to waste in your household?
Unweighted $N=486$

Respondents were also asked to estimate how much food they throw away or compost relative to the average American. As can be seen in Figure 20, the majority of respondents believe they throw out or compost A Lot Less ( $45.0 \%$ ) or A Little Bit Less ( $28.4 \%$ ) than the average American. This rating did not differ significantly across urban and rural households.

Figure 20: Food Thrown Away or Composted Relative to the Average American

| Don't Know/Refused 3.3\% <br> A Lot Less 45.0\% |  |
| :---: | :---: |

Q13: Thinking of the average American, do you think the amount of food you throw out or compost is a lot more, a little bit more, the same, a little bit less, or a lot less?
Unweighted $\mathrm{N}=486$
A chi-square test was conducted to determine whether the amount of food thrown out or composted relative to the average American differed across household type. Adults living alone are more likely to believe they throw out or compost A Lot Less food than the average American, and households with children are more likely to say they throw out or compost The Same amount food ( $X^{2}=31.104, p<.001$ ).

## Table 11: Food Thrown Out or Composted Relative to the Average American by Household Type

## Food Thrown Out or Composted Relative to the Average American

| Household Type*** | A Lot <br> More | A Little <br> Bit More | The <br> Same | A Little <br> Bit Less | A Lot <br> Less |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Adult living alone | $3.1 \%$ | $3.9 \%$ | $4.7 \%$ | $22.5 \%$ | $65.9 \%$ |
| 2+ Adults WITHOUT Children | $6.2 \%$ | $7.2 \%$ | $11.8 \%$ | $34.4 \%$ | $40.5 \%$ |
| 1+ Adults WITH Children | $7.3 \%$ | $8.0 \%$ | $16.8 \%$ | $30.7 \%$ | $37.2 \%$ |

[^7]Food is often marked with a "use by," "sell by" or "best by" date. Respondents were asked what they generally do with different foods after the date has passed. Table 12 presents the percentages for each of the different approaches taken across five food types. Responses that occurred most frequently have been color coded for ease of comparison, with the most frequent in burgundy, the second most frequent in green, and the third most frequent in orange. For Fresh Meat or Fish, Canned Foods, and Condiments, the largest proportion of respondents reported that nothing is done with those foods because everything is eaten or frozen before the package date. For Eggs or Dairy and Fresh Fruits and Vegetables, the most common approach was to smell or look at the food to determine if it's still good. Those two approaches were either the most or second most common approach for four of the food types. For Canned Foods, the second most common response was that they don't pay attention to dates. The third most common approach for Fresh Meat or Fish, Eggs or Dairy, Fresh Fruits and Vegetables and Condiments is to throw them away once they pass the package date.

## Table 12: Approach to Foods That Have Passed the "Use by," "Sell by," or "Best by" Date has Passed

| Approach to Foods <br> [sorted in descending order by Fresh <br> Meat or Fish] | Fresh Meat <br> or Fish | Eggs or <br> Dairy | Fresh Fruits <br> and <br> Vegetables | Canned <br> Foods | Condiments |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Not Applicable, everything is eaten or <br> frozen before the package date | $\mathbf{4 6 . 2 \%}$ | $\mathbf{3 3 . 6 \%}$ | $\mathbf{2 8 . 6 \%}$ | $\mathbf{2 9 . 7 \%}$ | $\mathbf{2 6 . 7 \%}$ |
| Smell or look at it to determine if it's <br> still good | $\mathbf{3 5 . 5 \%}$ | $\mathbf{4 1 . 5 \%}$ | $\mathbf{5 0 . 4 \%}$ | $\mathbf{1 7 . 0 \%}$ | $\mathbf{2 5 . 2 \%}$ |
| Throw it away | $11.8 \%$ | $15.4 \%$ | $11.0 \%$ | $15.0 \%$ | $21.7 \%$ |
| Don't pay attention to dates | $2.2 \%$ | $5.9 \%$ | $4.6 \%$ | $\mathbf{2 6 . 6 \%}$ | $20.7 \%$ |
| Don't buy or eat this type of food | $1.6 \%$ | $1.0 \%$ | $0.1 \%$ | $\mathbf{7 . 5 \%}$ | $2.4 \%$ |
| Not applicable, vegetarian or vegan | $1.5 \%$ | $0.6 \%$ | --- | --- | --- |
| Not applicable, no dates | $0.2 \%$ | $0.8 \%$ | $3.3 \%$ | $0.1 \%$ | $0.1 \%$ |
| None of the above | $0.0 \%$ | $0.6 \%$ | $1.8 \%$ | $2.5 \%$ | $1.4 \%$ |
| Don't know/Refused | $1.0 \%$ | $0.7 \%$ | $0.3 \%$ | $1.5 \%$ | $1.8 \%$ |

Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after that date has passed?

Q10A: Fresh meat or fish
Q10B: Eggs or dairy
Q10C: Fresh fruits and vegetables
Q10D: Canned foods
Q10E: Condiments, for example, mayonnaise, mustard, or salad dressings
Unweighted $\mathrm{N}=486$

The characteristics of the respondents who reported that they throw away or compost foods that have passed the "use by," "sell by" or "best by" date are presented in Table 13. The percentages represent the proportion of each demographic subgroup who reported that they throw away or compost each of the food types. The percentages of each demographic for the full sample are included at the far right for comparison (excluding Missing, see Table 1). Due to small sample sizes and the resulting very small cell sizes (i.e., number of respondents in a given demographic subgroup), these findings should be interpreted with caution.

## Table 13: Respondent Demographics for Households that Throw Away that have Passed the "Use by," "Sell by," or "Best by" Date

## Households that Throw Away or Compost

| Gender | Fresh Meat or Fish | Eggs or Dairy) | Fresh Fruits and Vegetables | Canned <br> Foods) | Condiments | Full Sample |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 9.1\% | 11.3\% | 9.0\% | 16.1\% | 18.9\% | 60.5\% |
| Male | 15.5\% | 21.7\% | 13.7\% | 12.8\% | 26.6\% | 38.3\% |
| Other | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% |
| Prefer not to answer | 12.5\% | 12.5\% | 25.0\% | 50.0\% | 25.0\% | 1.0\% |
| Age Group |  |  |  |  |  |  |
| 18-34 Years Old | 13.9\% | 22.7\% | 21.1\% | 9.2\% | 26.6\% | 13.8\% |
| 35-64 Years Old | 11.4\% | 22.0\% | 6.9\% | 18.0\% | 22.7\% | 51.9\% |
| 65 Years of Age or Older | 10.4\% | 8.7\% | 8.5\% | 14.9\% | 19.8\% | 29.8\% |

Total Household Income for 2016

| Under $\$ 10,000$ | $9.1 \%$ | $0.0 \%$ | $4.0 \%$ | $8.7 \%$ | $8.0 \%$ | $3.7 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 10,000$ to $\$ 24,999$ | $22.0 \%$ | $24.5 \%$ | $18.8 \%$ | $16.3 \%$ | $22.4 \%$ | $10.1 \%$ |
| $\$ 25,000$ to $\$ 49,999$ | $8.9 \%$ | $12.9 \%$ | $8.9 \%$ | $13.9 \%$ | $27.4 \%$ | $20.0 \%$ |
| $\$ 50,000$ to $\$ 74,999$ | $7.5 \%$ | $16.5 \%$ | $8.7 \%$ | $11.2 \%$ | $20.7 \%$ | $16.7 \%$ |
| $\$ 75,000$ to $\$ 99,999$ | $12.9 \%$ | $15.9 \%$ | $8.1 \%$ | $27.4 \%$ | $24.2 \%$ | $15.4 \%$ |
| $\$ 100,000$ to $\$ 149,999$ | $20.0 \%$ | $17.4 \%$ | $8.3 \%$ | $16.7 \%$ | $18.2 \%$ | $3.5 \%$ |
| $\$ 150,000$ to $\$ 199,999$ | $26.3 \%$ | $10.0 \%$ | $15.0 \%$ | $16.7 \%$ | $26.3 \%$ | $3.9 \%$ |
| $\$ 200,000$ or more |  |  |  |  |  |  |

Household Type

| Two or more adults <br> without children | $11.3 \%$ | $16.3 \%$ | $12.3 \%$ | $16.0 \%$ | $20.8 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| One or more adults with <br> children | $14.5 \%$ | $21.7 \%$ | $10.1 \%$ | $17.5 \%$ | $29.9 \%$ |
| Adult living alone | $10.4 \%$ | $7.6 \%$ | $10.5 \%$ | $11.3 \%$ | $17.8 \%$ |
| Money Spent on Food Eaten at Home Each Week |  |  | $16.0 \%$ |  |  |
| $\$ 100$ or Less | $11.5 \%$ | $11.6 \%$ | $12.0 \%$ | $10.5 \%$ | $19.8 \%$ |
| $\$ 101-\$ 200$ | $10.8 \%$ | $17.0 \%$ | $6.7 \%$ | $16.3 \%$ | $26.6 \%$ |
| $\$ 201-\$ 300$ | $14.5 \%$ | $17.9 \%$ | $18.2 \%$ | $22.6 \%$ | $20.8 \%$ |
| More than $\$ 300$ | $21.9 \%$ | $27.3 \%$ | $18.2 \%$ | $17.6 \%$ | $18.2 \%$ |

[^8]Chi-square tests showed a significant difference across urban and rural households for only one of the food types: eggs or dairy. Rural households were more likely to Eat or Freeze Eggs or Dairy Before the Package Date than urban households, and urban households were more likely to Throw Them Away or Not Pay Attention to Dates than rural households ( $X^{2}=21.899, p<.01$ ).

Table 14: What Households Generally Do with Eggs or Dairy after the "Use by," "Sell
by," or "Best by" Date Has Passed

| Approach to Eggs or Dairy after the Date Has Passed ${ }^{\mathbf{1}}$ | Urban | Rural |
| :--- | ---: | ---: |
| Smell or look at it to determine if it's still good | $42.0 \%$ | $43.4 \%$ |
| Not Applicable, everything is eaten or frozen before the package date | $32.8 \%$ | $41.4 \%$ |
| Throw it away | $16.6 \%$ | $11.2 \%$ |
| Don't pay attention to dates | $7.1 \%$ | $0.7 \%$ |
| Don't buy or eat this type of food | $1.2 \%$ | $0.0 \%$ |
| Not applicable, no dates | $0.3 \%$ | $3.3 \%$ |

*p<. $055^{* *} \mathrm{p}<.01{ }^{* * *} \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
${ }^{1}$ The None of the Above and Don't Know response options were removed before conducting the chi-square test.
Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after the date has passed?

Q10B: Eggs or dairy
Unweighted $\mathrm{N}=486$

Finally, respondents were asked how often they clean out their fridge. Every Month was the most common frequency (29.3\%), followed by Every 3 Months or More (24.7\%) and Every Week (23.8\%).

Figure 21: Frequency of Fridge Cleaning


Q11: How often do you clean out your fridge?
Unweighted $\mathrm{N}=486$
A chi-square test revealed that urban and rural households differ significantly on the frequency with which they clean out their refrigerators, with rural households generally cleaning them out more frequently than urban households ( $X^{2}=14.735, p<.01$ ).

Table 15: Frequency of Fridge Cleaning across Urban and Rural Respondents
Frequency of Fridge Cleaning

|  |  | Every | Every 3 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Every | Other | Every | Months or | Mover |
| Household Geography** | Week | Week | Month | More | Never |
| Urban | $21.8 \%$ | $17.0 \%$ | $31.2 \%$ | $26.4 \%$ | $3.6 \%$ |
| Rural | $33.8 \%$ | $23.4 \%$ | $22.1 \%$ | $17.5 \%$ | $3.2 \%$ |

[^9]
## Leftovers

A series of survey items focused on how households handle leftovers. Respondents were asked to rate how often leftovers are:

- Eaten as another meal, without alteration or other food added
- Used as part of another meal, with other food added
- Composted or put in curbside composting
- Put down the drain or garbage disposal
- Fed to animals
- Thrown in the garbage

Figure 22 presents the distribution of frequency ratings across the six approaches to handling leftovers. The most common approach to handling leftovers is to Eat Them as Another Meal, Without Alteration (63.1\% Always or Often). The least common ways of handling leftovers are to Feed Them to Animals ( $72.9 \%$ Never or Rarely), Put Them Down the Drain or Garbage Disposal ( $70.9 \%$ Never or Rarely), or Compost Them ( $62.0 \%$ Never or Rarely).

Figure 22: Frequency for Ways in Which Leftovers Are Handled


Sometimes households have leftovers. How often are leftovers:
Q8A: Eaten as another meal, without alteration or other food added?
Q8B: Used as part of another meal, with other food added?
Q8C: Composted or put in curbside composting?
Q8D: Put down the drain or garbage disposal?
Q8E: Fed to animals?
Q8F: Thrown in the garbage?
Unweighted $\mathrm{N}=486$

Chi-square analyses were done to determine whether the manner in which leftovers are handled differs across urban and rural households. Table 16 presents the two ratings that were significantly different across geographic area. Rural households are more likely to Never or Often put leftovers down the drain or garbage disposal, while urban households are more likely to Rarely or Sometimes do that ( $X^{2}=13.641, p<.01$ ). Urban households are more likely to Never Feed Them to Animals, while rural households are more likely to Sometimes or Always do that ( $X^{2}=12.053, p<.05$ ).

Table 16: Ways in Which Leftovers are Handled across Urban and Rural Households
Put Down Drain or Garbage Disposal

| Geographic Area** | Never | Rarely | Sometimes | Often | Always |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Urban | $45.0 \%$ | $24.9 \%$ | $18.5 \%$ | $8.5 \%$ | $3.0 \%$ |
| Rural | $60.0 \%$ | $16.8 \%$ | $11.0 \%$ | $11.0 \%$ | $1.3 \%$ |

Fed to Animals

| Geographic Area* | Never | Rarely | Sometimes | Often | Always |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Urban | $66.7 \%$ | $12.6 \%$ | $9.7 \%$ | $7.8 \%$ | $3.2 \%$ |
| Rural | $55.8 \%$ | $13.0 \%$ | $17.5 \%$ | $5.8 \%$ | $7.8 \%$ |

*p<. $05{ }^{* *} \mathrm{p}<.011^{* * *} \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
Sometimes households have leftovers. How often are leftovers:
Q8D: Put down the drain or garbage disposal?
Q8E: Fed to animals?
Unweighted $\mathrm{N}=486$

Respondents were also asked two more questions about the frequency their household prioritizes eating leftovers and freezing leftovers if they think they will not be able to eat them in time. Figure 23 shows the distribution of responses for those two ratings. The majority of households either Often ( $37.4 \%$ ) or Always $(32.2 \%)$ Prioritize Eating Leftovers. The spread of responses across the rating scale is fairly flat for Freezing Leftovers That Will Not Be Eaten in Time, suggesting that households vary quite a bit on that behavior.

Figure 23: Frequency of Behaviors Associated with Leftovers


Generally, how often do you or other household members take the following actions:
Q12A: Prioritize eating leftovers?
Q12B: Freeze leftovers if you think you will not be able to eat them in time?
Unweighted $\mathrm{N}=486$
Urban and rural households did not differ significantly in prioritizing eating leftovers. However, Table 17 shows that urban households more likely Never freeze leftovers and rural households are more likely to Sometimes freeze leftovers ( $X^{2}=9.578, p<.05$ ).

## Table 17: Frequency of Freezing Leftovers That Will Not Be Eaten in Time across Urban and Rural Households

## Frequency of Freezing Leftovers That Will Not Be Eaten in Time

| Geographic Area* | Never | Rarely | Sometimes | Often | Always |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Urban | $25.9 \%$ | $17.1 \%$ | $17.1 \%$ | $24.1 \%$ | $15.9 \%$ |
| Rural | $17.4 \%$ | $17.4 \%$ | $27.1 \%$ | $20.0 \%$ | $18.1 \%$ |

*p<. $05 * * \mathrm{p}<.01 * * * \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
Q12B: Generally, how often do you or other household members take the following action: Freeze leftovers if you think you will not be able to eat them in time?
Unweighted $N=486$

## Food Preparation, Use and Management

Respondents were asked how often their households do the following related to food preparation, use and management:

- When fruits or vegetables are bruised, you remove the bad part and eat the rest.
- Use vegetable peels and stalks in cooking.
- Use bones for cooking.
- Manage food in the refrigerator by storing items that need to be eaten the soonest in a designated area.

Figure 24 presents the distribution of frequency ratings for each of those items. Households commonly remove the bad parts of fruits and vegetables ( $79.7 \%$ Always or Often), but less commonly use vegetable peels and stalks ( $53.7 \%$ Never or Rarely) or bones ( $55.1 \%$ Never or Rarely) for cooking. Respondents were almost evenly split between Never or Rarely ( $42.9 \%$ ) and Always or Often ( $41.2 \%$ ) managing food in the refrigerator by storing items that need to be eaten the sooner in a designated area.

Figure 24: Frequency of Food Preparation, Use and Management Behaviors


[^10]Urban and rural households differed significantly on only one of those food preparation, use and management survey items. Urban households more likely Always or Sometimes manage food in the refrigerator by storing items that need to be eaten soonest in a designated area, and rural households are more likely to Never or Rarely manage food in their refrigerator in that manner ( $X^{2}=15.040, p<.01$ ).

Table 18: Frequency of Managing Food in the Refrigerator across Urban and Rural Households

| Geographic Area** | Never | Rarely | Sometimes | Often | Always |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Urban | $32.3 \%$ | $7.9 \%$ | $16.5 \%$ | $19.8 \%$ | $23.5 \%$ |
| Rural | $43.8 \%$ | $13.1 \%$ | $8.5 \%$ | $19.6 \%$ | $15.0 \%$ |

$* \mathrm{p}<.05 * * \mathrm{p}<.01 * * * \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
Generally, how often do you or other household members take the following actions:
Q12F: Manage food in the refrigerator by storing items that need to be eaten the soonest in a designated area?
Unweighted $\mathrm{N}=486$
Two final items asked respondents to rate how strongly they agree or disagree with the following statements related to food management:

- I always eat food that I have stored in the freezer.
- Work and social life can make managing food at home difficult, leading to food going uneaten.

As can be seen in Figure 25, many households are eating the foods they freeze (75.0\% Agree or Somewhat Agree). This was not statistically significant across urban and rural households.

Figure 25: Always Eat Food Stored in the Freezer


How strongly do you agree or disagree with the following statements?
Q15H: I always eat food that I have stored in the freezer.
Unweighted $\mathrm{N}=486$

The distribution for the other item was more varied. Slightly over one-third of the respondents either Agree ( $36.2 \%$ ) or Disagree ( $33.3 \%$ ) that work and social life can lead to food going uneaten due to management issues.

Figure 26: Work and Social Life Make Managing Food Difficult


How strongly do you agree or disagree with the following statements?
Q15F: Work and social life can make managing food at home difficult, leading to food going uneaten.
Unweighted N=486
A chi-square test revealed that rural respondents were significantly more likely to Disagree with this statement and urban respondents were more likely to Somewhat Agree ( $X^{2}=16.661, p<.01$ ).

Table 19: Work and Social Life Make Managing Food Difficult across Urban and Rural
Respondents Respondents

Work and Social Life Make Managing Food Difficult

| Household Geography** | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urban | 31.2\% | 9.8\% | 7.3\% | 15.3\% | 36.4\% |
| Rural | 46.8\% | 6.5\% | 5.2\% | 5.8\% | 35.7\% |

[^11]
## Appendix A: Survey Script

## 2017 Food Study Survey I nstrument

## NTRO

Hello, my name is $\$ 1.1$ ' m calling from Portland State University to conduct a brief survey about food especially food that is thrown away. I assure you, I am not selling anything. The purpose of the survey is to better understand how Oregonians purchase, use and dispose of food. The results will be used to develop programs to better manage food and leftovers. After you complete this survey, you can enter a drawing to win one of ten $\mathbf{\$ 1 0 0}$ gift cards. May I please speak to someone in your household who is 18 to 34 years old?
[IF NEEDED: We're trying to make sure this survey is representative of ALL Oregon residents and we have already surveyed many people who are age 35 or older.]
IF YES: Are they available to speak to now?
If NO HHM 18-34: That's okay! We'd still be happy to speak to you, and gather your opinions! To verify, are you 18 years of age or older?
[IF NO: May I speak to someone 18 years of age or older?]
The survey takes about $\mathbf{1 0}$ to $\mathbf{1 5}$ minutes and is completely confidential. You may skip any item you don't want to answer, or stop the survey at any time.
IWR NOTE: The gift card would be like an Amazon or Visa gift card, your choice.

| Choices | 00 | D |
| :--- | :--- | :--- |
| CONTINUE TO SURVEY | 01 |  |
| Specific Callback | 02 |  |
| Generic Callback | 03 | $==>/$ INT50 |
| Soft Refusal | 04 | $==>/$ INT55 |
| Non-Residential Number | 05 | $==>/$ INT04 |
| Language Barrier (Not English) | 06 | $==>/$ INT08 |
| Disability Barrier | 07 | $==>/$ INT09 |
| Does Not Live in Oregon | 08 | $==>/$ INT21 |
| Immediate Hang Up | 09 | $==>/$ INT95 |
| Hard Refusal or Never Callback | 10 | $==>/$ INT91 |
| No HHMs 18+ (Youth Cell Phone) | $==>/$ INT19 |  |

## I nterruption Codes

## INT01

Please indicate what type of answering machine you have reached. If it is an obvious business answering machine, back-up and code the record out as "Non-Residential."
Residential Answering Machine - Should be used for voicemail or telephone answering machines, where the message confirms it is a residential household.
Answering Machine (unknown if housing unit) - Should be used for telephone answering message (e.g. voicemail or a telephone answering machine) that does not conclusively indicate whether the number is for a residential household or not.
==> +1 IF NOT (INTRO=01)

| Residential Answering Machine | 01 | $==>/$ END |
| :--- | :--- | :--- |
| Answering Machine (unknown if housing unit) | 16 | $==>$ /END |

INTO2
Regular Busy Signal - Should be used when you get a regular (slow) busy signal.
==> +1 IF NOT (INTRO=02)
Regular Busy 02 D $==>/$ END

## INT03

No Answer - Should be used when you let the phone ring for 5+ times and no one picks up the phone and an answering machine does not come on. This can also be used when you reach a mailbox that is not set up yet or is full.
==> +1 IF NOT (INTRO=03)
No Answer $03 \quad \mathrm{D} \quad==>/$ END

I NT04
We are only surveying residential households. Thank you for your time today.
Non-Residential - Should be used for dedicated business and non-residence lines (e.g., government offices). Should not be used for group quarters. If this is a home business, and a HH and business share the same telephone number, do not use this code; attempt to survey the HH.
==> +1 IF NOT (INTRO=04 OR NTRO=04)
Non-Residential $04 \quad \mathrm{D} \quad==>/$ END

INT06
TRY TO GET NEW PHONE NUMBER OR CALLBACK AT BETTER TIME
I'm sorry to have bothered you. Is there a better number I can reach you at, or may we call you at a better time (e.g., when you are not driving, or during off-peak hours)?
Number Change - Should be used if $R$ is willing to provide another number to call them at. Enter new number on the next screen, then call them back immediately at that new number, or schedule a CB for a later time. Cell Phone Refusal - Should be used if a R refuses to complete the survey specifically because they are on their cell phone and their location or activity does not allow them to complete an interview.
==> +1 IF NOT (INTRO=06)

| Cell Phone Refusal | 06 | D | $==>/$ END |
| :--- | :--- | :--- | :--- |
| Number Change | 12 |  | $==>/$ TELO1 |

## I NT07

Non-working, Disconnected, Fast Busy, Temporarily Out Of Service - Should be used for non-working (e.g., technical problems, circuit overloads, bad lines), disconnected and temporarily out of service numbers, and fast busy signals. $==>+1$ IF NOT (INTRO=07)

```
Non-working, Disconnected, Fast Busy, Temporarily Out Of Service 07 D ==> /END
```

I NT08

## RECORD LANGUAGE IF KNOWN

Does anyone in your household speak English? [IF NO:] I'm sorry, we are only able to conduct the survey in English. Thank you for your time today.
Language Barrier - Should be used in cases in which no one in the HH speaks a language that the survey is being conducted in (i.e., English).
$==>+1$ IF NOT (INTRO=08 OR NTRO=05)

| Language Barrier | 08 | DO |
| :--- | :--- | :--- | :--- |
| INT09 |  |  |

I s there anyone else in the household I could complete a survey with? [IF NO:] Thank you for your time today.
Disability Barrier - Should be used when Rs have cognitive, mental, or physical disabilities that prevents them from answering and/ or understanding questions and there is no one else in the HH that can complete the survey. This could include both permanent conditions (e.g., senility, blindness or deafness) and temporary conditions (e.g., pneumonia or drunkenness). TTY Systems - We are not able to conduct surveys with TTY Systems. This is a video phone that when called, you're connected to an Interpreting Center and are prompted with this type of message: Please wait until your call connects, you will hear ringing until you call connects. Then you're prompted to say who you are and an interpreter would connect you to the R. If you encounter this specific message and situation, it is okay to assume you're calling a deaf person using a TTY system and can omit leaving a message. Just code the call out as a Disability Barrier and leave a note about a possible or confirmed TTY system.
$==>+1$ IF NOT (INTRO=09 OR NTRO=06)

| Disability Barrier | 09 | D | $==>$ /END |
| :--- | :--- | :--- | :--- |
| INT10 |  |  |  |
| Fax / Data Line - Should be used for dedicated fax or data lines. Lines that are used by a HH for both regular phone <br> calls and data links are eligible, therefore, do not use this code and attempt to conduct an interview with those HHs if <br> possible. <br> $==>+1$ IF NOT (INTRO=10) |  |  |  |
| Fax / Data Line 10 D $==>$ /END |  |  |  |

I NT11
I'm sorry to have bothered you. Thank you for your time today.
Group Home / Quarters - Should be used when R does not have their own individual line (e.g., assisted living facilities, nursing homes, prisons, sanitariums, military barracks, or college dormitories).
$==>+1$ IF NOT (INTRO=11)

| Group Home $\quad 11 \quad \mathrm{D} \quad==>/$ END |
| :--- |
| NT15 |
| Call Blocking - Used for call-screening, call-blocking, or other telecommunication technologies that create barriers to |
| getting through to a number. You may be prompted to provide your name, receive an automated message saying |
| something like: "The person you are trying to reach is not accepting calls at this time. Please try your call later." and |
| then the phone goes to a busy signal. These numbers will be called back once more. |
| $==>+1$ IF NOT (INTRO=12) |
| Call Blocking 15 D $==>/ E N D$ |

I NT19
I s there someone in household 18 years of age or older that I can speak too? [IF YES: Back-up to NTRO, start again with new R.] [IF NO: Thank you for your time, goodbye.]
No HHMs 18+ (Youth Cell Phone) - To be used if no one lives at this HH who is 18 years of age or older, or this is a child-specific cell phone (and no forwarding HH landline number is able to be gathered).
$==>+1$ IF NOT (NTRO = 10)

| No HHMs 18+ (Youth Cell Phone) | 19 | D | $==>/ E N D$ |
| :--- | :--- | :--- | :--- |
| NT50 |  |  |  |

When would be a better time to callback?
English Specific Callback - To be used when a R schedules a definite appointment to be called back at a specific time to complete the interview.

| $==>+1$ IF NOT $($ NTRO $=01)$ |  |  |  |
| :--- | :--- | :--- | :--- |
| English Specific Callback | 50 | D | $==>/ C B$ |

## INT55

When would be a better time to callback?
English Generic Callback - Should be used when the $R$ is being fairly cooperative, might be willing to do the survey, but a Specific CB appointment time is not able to be confirmed. These numbers will be automatically called back in 1 to 3 days. REMINDER: Leave CB Notes.
$==>+1$ IF NOT (NTRO=02)
English Generic Callback $55 \quad$ D $==>/ E N D$

## NT57

It's really important that we hear from everyone. The information you provide will help Oregon develop programs about food management. If now is not a good time, I would be happy to set up a callback to conduct the survey at a better time for you. When would be a better time to callback? [IF NO:] Sorry to have bothered you. Thank you for your time today.
English Soft Refusal - Should be used when the R provides a temporary reason for not participating, (such as being too busy), is uncertain as to the usefulness of participating, or expresses a lack of interest about the survey topic. For example, this code could be used if the $R$ has not heard the entire introduction and/or automatically says something vague like "not interested," and just hangs up before you start or get through an adequate RF Conversion. These numbers will be automatically called back in 1 to 3 days. REMINDER: Leave CB Notes.
$==>+1$ IF NOT (NTRO=03)

| English Soft Refusal | 57 | D |
| :--- | :--- | :--- |

## | NT91

It's really important that we hear from everyone. The information you provide will help Oregon develop programs about food management. If now is not a good time, I would be happy to set up a callback to conduct the survey at a better time for you. When would be a better time to callback? [IF NO:] Sorry to have bothered you. Thank you for your time today.
Hard Refusal - Should be used if you introduced the survey (hitting the key points of the intro screen(s), tried to do a refusal conversion once communicating the main and relevant points, and the $R$ insists and says again they don't want to participate (thus refusing twice). It can also be used if someone is very insistent with their refusal or is angry, and you do not think they can be convinced to complete the survey. These are final refusals and will likely be not be called back. Never Callback - Should only be used if R says "take me off your list," "don't ever call me again," or is acting very inappropriately or irately. These are final refusals and will be not be called back.
$==>+1$ IF NOT (NTRO=09)

| Hard Refusal (RECORD BRIEF NOTES) | 91 | DO | $==>/ E N D$ |
| :--- | :--- | :--- | :--- |
| Never Callback | 92 |  | $==>/ E N D$ |

## INT95

English Immediate Hang Up - Should be used if the R didn't say anything (other than hello) and hung up on you as you were introducing the survey. No screener was completed (if applicable) and it is unknown if the person answering the phone was a HHM and eligible to complete the survey. These records will be automatically called back in a few days.
$==>+1$ IF NOT (NTRO=08)
English Immediate Hang Up 95 D ==> /END

## Screening Questions

OREGON
And just to verify, are you currently living in Oregon?

| Choices | 0 |
| :--- | :--- |
| No | 1 |
| Yes | 8 |
| Don't Know | 9 |
| Refused |  |

INT21
Is there anyone available on this phone line that lives in Oregon? [IF YES:] May I speak to them? [Backup to introduction.] [IF NO:] I'm sorry to have bothered you, we are only surveying people who live in Oregon. Thank you for your time today.
Does Not Live in Oregon - Should be used when R does not currently live in Oregon and there are not Oregon residents available at this line.
$==>$ SKIP +1 IF NOT (NTRO=07 OR OREGON=0)

## Choices

Does Not Live in Oregon 21 D $==>/ E N D$

## INT22

I'm sorry, but we need that information to continue. Thank you for your time today.
DK/RF OR Screening Question - Should be used when R does not answer Oregon Screening Question.
$==>$ SKIP +1 IF NOT (OREGON=8,9)

| Choices | 22 | D | $==>/ E N D$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

## ZI PCODE

ENTER 5-DIGIT ZIPCODE

## And what is your home zip code?

IWR NOTES: Please collect home zip codes if possible (not mailing). If the R provides a zip code that does not begin with "97" please verify they live in Oregon.

| Choices |  |  |  |
| :--- | :--- | :--- | :--- |
| Other (Verify again they live in Oregon) | 77777 | O | $==>/$ CITY |
| Don't Know | 88888 |  | $==>/$ CITY |
| Refused | 99999 | $==>/$ CITY |  |

## CI TY

ENTER AND VERIFY SPELLING

## Could you tell me the city or town you live in?

IWR NOTE: If R gives you a city you are certain is not in Oregon and they have insisted that they live in Oregon (in 2 previous items), continue with survey. Note the record number and let the IC know once survey is complete.
==> SKIP +1 IF NOT (ZIPCODE=77777,88888,99999)

| Choices | 0 | DO |  |
| :--- | :--- | :--- | :--- |
| Enter City or Town Name | 8 |  | $==>/$ INT23 |
| Don't Know | 8 | $==>/$ /INT23 |  |
| Refused | 9 |  |  |

I NT23
I'm sorry, but we need that information to continue. Thank you for your time today.
DK/RF CITY Screening Question - Should be used when R does not answer the CITY Screening Question
$==>$ SKIP +1 IF NOT $(\mathrm{CITY}=8,9)$

## Choices

DK/RF CITY Screening Question 23 D ==> /END

## Survey Content

## SECT1

Thank you. First, a few questions about your household's shopping habits. Throughout the survey, when we say "household" we mean anyone living in your home that you usually buy or cook food with or for.
IWR NOTE: If asked more about household: Consider anyone you usually buy or cook food with or for. If you live alone or don't have anyone you buy or cook food with or for, consider yourself the household.
Q1
READ OPTIONS 01-09; PAUSING AFTER EACH TO ALLOW FOR YES OR NO; SELECT ALL THAT APPLY
I' $\mathbf{m}$ going to read a list of possible places where your household may purchase or get food to EAT AT HOME. Please tell me all that apply, by saying "yes" or "no" after each.

## Choices

Superstores, like Costco 01
Grocery stores 02
Corner stores or mini-marts 03
Farmers markets 04
Food pantries 05
Your backyard garden or local garden 06
CSA (Community-supported agriculture) 07
Online meal delivery, for example, GrubHub, Blue Apron, or restaurants 08
Online grocery delivery, for example, Amazon or Safeway.com 09
Other (Please specify) 660
None of the Above 77 X
Don't Know 88 X
Refused 99 X

## Q1A

READ OPTIONS 1-3
On average, how often does your household purchase or get food from a GROCERY STORE?
IWR NOTE: Please consider your purchasing habits over the past year.
$==>$ SKIP +1 IF NOT(Q1=02)

## Choices

Less than once per week 1
1 to 2 times per week 2
3 or more times per week 3
Don't Know 8
Refused 9

| Q1B |  |
| :--- | :--- |
| READ OPTIONS $1-3$ |  |
| On average, how often does your household purchase or get food from a FARMERS MARKET? |  |
| IWR NOTE: Please consider your purchasing habits over the past year. |  |
| $==>$ SKIP TO Q2 IF NOT(Q1=04) |  |
| Choices |  |
| Less than once per week | 1 |
| 1 to 2 times per week | 2 |
| 3 or more times per week | 3 |
| Don't Know | 8 |
| Refused | 9 |

## Q2

READ OPTIONS 1-5
Before shopping for food, how often does your household CHECK TO SEE WHAT YOU ALREADY HAVE?
IWR NOTE: Check to see what is in your refrigerator, freezer, and cupboards before you go shopping.

## Choices

| Never | 1 |
| :--- | :--- |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |


| Q2A |  |
| :--- | :--- |
| Would you like to do that more? |  |
| IWR NOTE: Check to see what is in your refrigerator, freezer, and cupboards before you go shopping. |  |
| $==>$ SKIP TO Q3 IF NOT $(Q 2=1,2,3)$ |  |
| Choices | 0 |
| No | 1 |
| Yes | 8 |
| Don't Know | 9 |
| Refused |  |

## Q3

READ OPTIONS 1-5
Before shopping for food, how often does your household ESTI MATE HOW MUCH OF EACH ITEM YOU NEED TO BUY?
IWR NOTE: Estimate how much of each item you need to buy before going shopping.

| Choices |  |
| :--- | :--- |
| Never | 1 |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |


| Q3A |
| :--- |
| Would you like to do that more? |
| IWR NOTE: Estimate how much of each item you need to buy before going shopping. |
| $==>$ SKIP TO Q4A IF Q3 $=4,5,8,9$ |
| Choices |
| No |
| Yes |


| Don't Know | 8 |
| :--- | :--- |
| Refused | 9 |
|  |  |
| Q4A |  |
| READ OPTIONS 1-5 |  |
| When shopping for food, how often does your household do the following: Buy more of a product than |  |
| you were planning to, because it is on sale. |  |
| Choices |  |
| Never | 1 |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |

```
Q4B
READ OPTIONS 1-5
because it looks good at the time.
Choices
Never 1
Rarely 2
Sometimes 3
Often 4
Always 5
Don't Know 8
Refused 9
```

(When shopping for food, how often does your household do the following:) Buy something unplanned,

## Q4C

READ OPTIONS 1-5
(When shopping for food, how often does your household do the following:) Buy food in larger quantities than desired, due to the way food is packaged.

## Choices

| Never | 1 |
| :--- | :--- |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |


| Q5 |  |
| :--- | :--- |
| DO NOT READ OPTIONS; PROBE UNTIL UNPRODUCTIVE (i.e. "Any other day?"); SELECT ALL THAT APPLY |  |
| On which days of the week does your household usually shop for food? |  |
| Choices | 1 |
| Monday | 2 |
| Tuesday | 3 |
| Wednesday | 4 |
|  |  |
| Thursday | 5 |
| Friday | 6 |
| Saturday | 7 |
| Sunday | 8 |
| Don't Know | 9 |

SECT2
Next, a few questions about how your household handles food in the home.
Q6
READ OPTIONS 1-4
On a weekly basis, how many of your main meals do you plan ahead of time?
IWR NOTE: Main meals would be breakfast, lunch or dinner.

| Choices |  |
| :--- | :--- |
| ALMOST ALL of them | 1 |
| MOST of them | 2 |
| A FEW of them | 3 |
| None of them | 4 |
| Don't Know | 8 |
| Refused | 9 |

Q6A
Would you like to plan ahead more often?
==> SKIP TO Q7 IF Q6=1,9
Choices

| No | 0 |
| :--- | :--- |
| Yes | 1 |
| Don't Know | 8 |
| Refused | 9 |

## Q7

As part of your household's garbage and recycling service, do you have a separate container for food and yard waste?

| Choices |  |
| :--- | :--- |
| No | 0 |
| Yes | 1 |
| Don't Know | 8 |
| Refused | 9 |

## Q8A <br> READ OPTIONS 1-5

Sometimes households have leftovers. How often are leftovers eaten as another meal, WI THOUT ALTERATI ON OR OTHER FOOD ADDED?
IWR NOTE: You may include eating two or more leftovers at the same time together, without alteration.

## Choices

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5
Not Applicable / Never have leftovers 7 ==> /Q9
Don't Know 8
Refused 9

## Q8B

READ OPTIONS 1-5
How often are leftovers used as PART OF ANOTHER MEAL, with other food added?

## Choices

Never 1

Rarely 2
Sometimes 3
Often 4
Always 5

| Don't Know | 8 |  |
| :--- | :--- | :---: |
| Refused | 9 |  |
|  |  |  |
| Q8C |  |  |
| READ OPTIONS 1-5 IF NEEDED |  |  |
| (How often are leftovers) Composted or put in curbside composting? |  |  |
| Choices |  |  |
| Never | 1 |  |
| Rarely | 2 |  |
| Sometimes | 3 |  |
| Often | 4 |  |
| Always | 5 |  |
| Not Applicable / Don't Compost | 7 |  |
| Don't Know | 8 |  |
| Refused | 9 |  |


| Q8D |  |
| :--- | :--- |
| READ OPTIONS 1-5 IF NEEDED |  |
| (How often are leftovers) Put down the drain or garbage disposal? |  |
| Choices |  |
| Never | 1 |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |

## Q8E

READ OPTIONS 1-5 IF NEEDED
(How often are leftovers) Fed to animals?

| Choices | 1 |
| :--- | :--- |
| Never | 2 |
| Rarely | 3 |
| Sometimes | 4 |
| Often | 5 |
| Always | 7 |
| Not Applicable / No Animals | 8 |
| Don't Know | 9 |
| Refused |  |

Q8F
READ OPTIONS 1-5 IF NEEDED
(How often are leftovers) Thrown in the garbage?

## Choices

| Never | 1 |
| :--- | :--- |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |

## Q9

READ OPTIONS 1-5

## Considering the food your household throws away or composts in the average week, how much of that do you think could be avoided?

| Choices | 1 |
| :--- | :--- |
| None | 2 |
| A Little | 3 |
| About Half | 4 |
| A Lot | 5 |
| All | 7 |
| Not Applicable / Don't Compost or Throw Away Food | 8 |
| Don't Know | 9 |
| Refused |  |

## Q10A

READ OPTIONS 01-04
Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after that date has passed? Fresh meat or fish

| Choices | 01 |
| :--- | :--- |
| Don't pay attention to dates | 02 |
| Throw it away | 03 |
| Smell or look at it to determine if it's still good | 04 |
| Not Applicable, everything is eaten or frozen before the | 04 |
| package date | 05 |
| Vegan household | 06 |
| Vegetarian household | 07 |
| None of the above | 08 |
| Don't buy or eat this type of food | 09 |
| Not Applicable, No Dates | 88 |
| Don't Know | 99 |
| Refused |  |

## Q10

READ OPTIONS 01-04
(Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after that date has passed?) Eggs or dairy
IWR NOTE: Dairy would include milk, cheese, yogurt, etc. IWR NOTE: Animal-based dairy only.
==> SKIP +1 IF Q10A=05
Choices
Don't pay attention to dates ..... 01
Throw it away ..... 02
Smell or look at it to determine if it's still good ..... 03
Not Applicable, everything is eaten or frozen before the ..... 04
package date
05
Vegan household
06
Vegetarian household
07
None of the above
08
Don't buy or eat this type of food
09
Not Applicable, No Dates
88
Don't Know99

## Q10C

READ OPTIONS 01-04 IF NEEDED
(Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after that date has passed?) Fresh fruits and vegetables
IWR NOTE: This would include dates on packaged fruits and vegetables.
Choices
Don't pay attention to dates ..... 01
Throw it away ..... 02
Smell or look at it to determine if it's still good ..... 03
Not Applicable, everything is eaten or frozen before the ..... 04
package date
05
Vegan household
06
Vegetarian household
07
None of the above
08
Don't buy or eat this type of food
09
Not Applicable, No Dates
88
Don't Know
99
Refused
Q10D
READ OPTIONS 01-04 IF NEEDED(Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with thefollowing foods after that date has passed?) Canned foods
Choices
Don't pay attention to dates ..... 01
Throw it away ..... 02
Smell or look at it to determine if it's still good ..... 03
Not Applicable, everything is eaten or frozen before the ..... 04
package date
05
Vegan household
06
Vegetarian household
07
None of the above
08
Don't buy or eat this type of food
09
Not Applicable, No Dates
88
Don't Know
99
Refused
Q10E
READ OPTIONS 01-04 IF NEEDED
(Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with thefollowing foods after that date has passed?) Condiments, for example, mayonnaise, mustard, or saladdressings
Choices
Don't pay attention to dates ..... 01
Throw it away ..... 02
Smell or look at it to determine if it's still good ..... 03
Not Applicable, everything is eaten or frozen before the ..... 04
Vegan household ..... 05
Vegetarian household ..... 06
None of the above ..... 07
Don't buy or eat this type of food ..... 08
Not Applicable, No Dates ..... 09
Don't Know ..... 88
Refused ..... 99

## Q11

## READ OPTIONS 1-5

How often do you clean out your fridge?
Choices

Every week 1
Every other week 2
Every month 3
Every 3 months or more 4
Never 5
Don't Know 8
Refused 9

## Q12A

READ OPTIONS 1-5
Generally, how often do you or other household members take the following actions? Prioritize eating leftovers

| Choices |  |
| :--- | :--- |
| Never | 1 |
| Rarely | 2 |
| Sometimes | 3 |
| Often | 4 |
| Always | 5 |
| Don't Know | 8 |
| Refused | 9 |

Q12B
READ OPTIONS 1-5
(Generally, how often do you or other household members take the following actions?) Freeze leftovers if you think you will not be able to eat them in time

| Choices | 1 |
| :--- | :--- |
| Never | 2 |
| Rarely | 3 |
| Sometimes | 4 |
| Often | 5 |
| Always | 8 |
| Don't Know | 9 |
| Refused |  |

## Q12C

READ OPTIONS 1-5 IF NEEDED
(Generally, how often do you or other household members take the following actions?) When fruits or vegetables are bruised, you remove the bad part and eat the rest

## Choices

Never 1
Rarely 2
Sometimes 3
Often 4
Always 5
Don't Know 8
Refused 9

## Q12D

READ OPTIONS 1-5 IF NEEDED
(Generally, how often do you or other household members take the following actions?) Use vegetable peels and stalks in cooking (for example, soups)

| Choices | 1 |
| :--- | :--- |
| Never | 2 |
| Rarely | 3 |
| Sometimes | 4 |
| Often | 5 |
| Always | 8 |
| Don't Know | 9 |
| Refused |  |

## Q12E

READ OPTIONS 1-5 IF NEEDED
(Generally, how often do you or other household members take the following actions?) Use bones for cooking (for example, soups)
$==>$ SKIP +1 IF Q10A=05,06 OR Q10B=05,06 OR Q10C=05,06 OR Q10D=05,06 OR Q10E=05,06

```
Choices
Never 1
```

Rarely 2
Sometimes 3
Often 4
Always 5
Don't Know 8
Refused 9

## Q12F

READ OPTIONS 1-5 IF NEEDED
(Generally, how often do you or other household members take the following actions?) Manage food in the refrigerator, by storing items that need to be eaten the soonest in a designated area

| Choices | 1 |
| :--- | :--- |

Rarely 2

Sometimes 3
Often 4
Always 5
Don't Know 8
Refused 9

## Q13

READ OPTIONS 1-5
Thinking of the average American, do you think the amount of food you throw out or compost is:

## Choices

A Lot More 1
A Little Bit More 2
The Same 3
A Little Bit Less 4
A Lot Less 5
Don't Know 8
Refused 9

## Q14

READ OPTIONS 1-5
How easy or difficult do you think it would be for you, personally, to reduce the amount of food that goes to waste in your household?

| Choices |  |
| :--- | :--- |
| Very Difficult | 1 |
| Somewhat Difficult | 2 |
| Neither Difficult nor Easy | 3 |
| Somewhat Easy | 4 |
| Very Easy | 5 |
| Not Applicable | 7 |
| Don't Know | 8 |
| Refused | 9 |

## SECT3

Next, a few questions on your opinions about food.
Q15A
READ OPTIONS 1-5
How strongly do you agree or disagree with the following statements? I feel less guilty about throwing out food that has been in the refrigerator for a long time.
IWR NOTE: This would be compared to food that has been in the refrigerator for a short time.

## Choices <br> Agree 1

Somewhat Agree 2
Neither Agree nor Disagree 3
Somewhat Disagree 4
Disagree 5
Don't Know 8
Refused 9

## Q15B

READ OPTIONS 1-5
(How strongly do you agree or disagree with the following statements?) I believe my household should reduce the amount of food we throw away.

| Choices | 1 |
| :--- | :--- |
| Agree | 2 |
| Somewhat Agree | 3 |
| Neither Agree nor Disagree | 4 |
| Somewhat Disagree | 5 |
| Disagree | 8 |
| Don't Know | 9 |
| Refused |  |

## Q15C

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) My household eats similar meals each week.

| Choices |  |
| :--- | :--- |
| Agree | 1 |
| Somewhat Agree | 2 |
| Neither Agree nor Disagree | 3 |
| Somewhat Disagree | 4 |
| Disagree | 5 |
| Don't Know | 8 |
| Refused | 9 |


| Q15D |  |
| :--- | :--- |
| READ OPTIONS 1-5 IF NEEDED |  |
| (How strongly do you agree or disagree with the following statements?) The person in my household who |  |
| most often prepares meals is able to create meals based on what is on-hand. |  |
| IWR NOTE: If there is not one particular person that applies to, please consider yourself for this question. |  |
| Choices | 1 |
| Agree | 2 |
| Somewhat Agree | 3 |
| Neither Agree nor Disagree | 4 |
| Somewhat Disagree | 5 |
| Disagree | 8 |
| Don't Know | 9 |
| Refused |  |

## Q15E

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) I wish I ate more healthily, for example eating more servings of fresh fruits and vegetables.

| Choices | 1 |
| :--- | :--- |
| Agree | 1 |

Somewhat Agree 2
Neither Agree nor Disagree 3
Somewhat Disagree 4
Disagree 5
Don't Know 8
Refused 9

## Q15F

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) Work and social life can make managing food at home difficult, leading to food going uneaten.
Choices
Agree ..... 1
Somewhat Agree ..... 2
Neither Agree nor Disagree ..... 3
Somewhat Disagree ..... 4
Disagree ..... 5
Don't Know ..... 8
Refused ..... 9

## Q15G

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) I find grocery shopping to be a hassle.

```
Choices
Agree 1
```

Somewhat Agree 2
Neither Agree nor Disagree 3
Somewhat Disagree 4
Disagree 5
Don't Know 8
Refused 9

## Q15H

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) I always eat food that I have stored in the freezer.

| Choices | 1 |
| :--- | :--- |
| Agree | 2 |
| Somewhat Agree | 3 |
| Neither Agree nor Disagree | 4 |
| Somewhat Disagree | 5 |
| Disagree | 8 |
| Don't Know | 9 |
| Refused |  |

## Q15I

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) I buy more than what I need in case there are unexpected guests.

| Choices | 1 |
| :--- | :--- |
| Agree | 2 |
| Somewhat Agree | 3 |
| Neither Agree nor Disagree | 4 |
| Somewhat Disagree | 5 |
| Disagree | 8 |
| Don't Know | 9 |
| Refused |  |

Q15J
READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) I buy more than I need because I like my fridge to be full.
Choices
Agree ..... 1
Somewhat Agree ..... 2
Neither Agree nor Disagree ..... 3
Somewhat Disagree ..... 4
Disagree ..... 5
Don't Know ..... 8
Refused ..... 9

## Q15K

READ OPTIONS 1-5 IF NEEDED
(How strongly do you agree or disagree with the following statements?) Date labels are a key source of information I use when purchasing dairy and meat.
Choices
Agree ..... 1
Somewhat Agree ..... 2
Neither Agree nor Disagree ..... 3
Somewhat Disagree ..... 4
Disagree ..... 5
Don't Know ..... 8
Refused ..... 9

## DEMO

## The final questions are for demographic purposes only.

## D1A

READ OPTIONS 0-3
Approximately how much money does your household spend on food and beverages EATEN AT HOME each week? Your best guess is fine.
IWR NOTE: Please do not include food or beverages eaten away from home, I will ask you about that next.

| Choices |  |
| :--- | :--- |
| $\$ 100$ or less | 0 |
| $\$ 101$ to $\$ 200$ | 1 |
| $\$ 201$ to $\$ 300$ | 2 |
| More than $\$ 300$ | 3 |
| Don't Know | 8 |
| Refused | 9 |

## D1B

READ OPTIONS 0-3
Approximately how much money does your household spend on food and beverages EATEN AWAY FROM HOME each week? Your best guess is fine.
IWR NOTE: Please do not include food or beverages eaten at home.

| Choices |  |
| :--- | :--- |
| $\$ 100$ or less | 0 |
| $\$ 101$ to $\$ 200$ | 1 |
| $\$ 201$ to $\$ 300$ | 2 |
| More than $\$ 300$ | 3 |
| Don't Know | 8 |
| Refused | 9 |

## D2

READ OPTIONS 1-3
What types of phones does your household currently have...
REFUSAL CONVERSION: Since cell phone only households are often not represented in phone surveys, it's very important that we include people on cell phones. We want to make sure all households are properly represented in this study.

| Choices |  |
| :--- | :--- |
| Only cell phones | 1 |
| Both cell and landline phones | 2 |
| Only landline phones | 3 |
| Don't Know | 8 |
| Refused | 9 |

## D2A

## Is the phone you are speaking on now a cell phone?

REFUSAL CONVERSION: Since cell phone only households are often not represented in phone surveys, it's very important that we include people on cell phones. We want to make sure all households are properly represented in this study.
$==>$ SKIP +1 IF NOT(D2 $=2,8,9$ )

| Choices | 0 |
| :--- | :--- |
| No | 1 |
| Yes | 8 |
| Don't Know | 9 |
| Refused |  |

## D3

## How many people live in your household, including yourself?

IWR NOTE: If asked more about household: Consider anyone you usually buy or cook food with or for. If you live alone or don't have anyone you buy or cook food with or for, consider yourself the household.

| Choices |  |
| :--- | :--- |
| One (R lives alone) | 1 |
| Enter number of people: | 2 |
| Refused | 9 |

HHM_0_5
Other than yourself, how many people live in your household in each of the following age groups? 0 to 5 years old
==> SKIP TO D5 IF D3=1,9
Choices 0

1 person 1
2 people 2
3 people 3
4 people 4
5 people 5
6 people 6
7 or more 7
Refused 9
HHM_6_12
(Other than yourself, how many people live in your household in each of the following age groups?) 6 to 12 years old

## Choices

| None | 0 |
| :--- | :--- |
| 1 person | 1 |
| 2 people | 2 |
| 3 people | 3 |
| 4 people | 4 |
| 5 people | 5 |
| 6 people | 6 |
| 7 or more | 7 |
| Refused | 9 |

HHM_13_17
(Other than yourself, how many people live in your household in each of the following age groups?) 13 to 17 years old

| Choices | 0 |
| :--- | :--- |
| None | 1 |
| 1 person | 2 |
| 2 people | 3 |
| 3 people | 4 |
| 4 people | 5 |
| 5 people | 6 |
| 6 people | 7 |
| 7 or more | 9 |
| Refused |  |

HHM_18_64
(Other than yourself, how many people live in your household in each of the following age groups?) 18 to 64 years old

| Choices |  |
| :--- | :--- |
| None | 0 |
| 1 person | 1 |
| 2 people | 2 |
| 3 people | 3 |
| 4 people | 4 |
| 5 people | 5 |
| 6 people | 6 |
| 7 or more | 7 |
| Refused | 9 |

HHM_65
(Other than yourself, how many people live in your household in each of the following age groups?) 65 years of age or older

| Choices |  |
| :--- | :--- |
| None | 0 |
| 1 person | 1 |
| 2 people | 2 |
| 3 people | 3 |
| 4 people | 4 |
| 5 people | 5 |
| 6 people | 6 |
| 7 or more | 7 |
| Refused | 9 |

## D5

ENTER YEAR 1899-1999
In what year were you born?

## Choices

| R under 18 (Exit Survey) | 8888 | $==>$ INT20 |
| :--- | :--- | :--- |
| Refused | 9999 |  |

## INT20

I 'm sorry but we can only conduct surveys with people 18 years of age or older. Thank you for your time today.
R Under 18, Made it to Demographics - Should be used when R said that they were 18+ on NTRO, but gave a year later than 1999 (2000-2017) on D5 making them 17 years of age or younger.
$==>+1$ IF NOT (D5=8888)

```
Choices
R Under 18, Made it to Demographics 20 D ==> /END
```

| D6 |  |
| :--- | :--- |
| DO NOT READ OPTIONS |  |
| To verify, what is your gender? |  |
| Choices | 0 |
| Male | 1 |
| Female | 2 |
| Other | 9 |
| Refused |  |

## D8

READ OPTIONS 1-7; SELECT ALL THAT APPLY
Which of the following best describes your race or ethnicity? Please select all that apply.

## Choices

American Indian or Alaska Native 1
Asian 2
Black or African American 3
Hispanic or Latino 4
Native Hawaiian or Pacific Islander 5
White 6
Some other race or ethnicity (Please specify) 7 O
Don't Know 8
X
Refused 9
X

## D9

READ OPTIONS 1-6 UNTIL STOPPED

## What is the highest level of education you have completed?

## Choices

Elementary or some high school (no diploma or GED) 1
High school diploma or GED 2
Some college, but no degree 3
Associate's degree (2-year degree, AA, AS, etc.) 4
Bachelor's degree (4-year degree, BA, BS, etc.) 5
Master's degree or higher 6
Don't Know 8
Refused 9

## D10 <br> READ OPTIONS 0-7 UNTIL STOPPED

What was your approximate annual household income in 2016 ?
IWR NOTE: This would include your income and anyone else who you consider part of your household.

## Choices

```
Less than $10,000 0
```

$\$ 10,000$ to less than $\$ 25,0001$
$\$ 25,000$ to less than $\$ 50,000 \quad 2$
$\$ 50,000$ to less than $\$ 75,000$
$\$ 75,000$ to less than $\$ 100,0004$
$\$ 100,000$ to less than $\$ 150,0005$
\$150,000 to less than \$200,000 6
$\$ 200,000$ or more 7
Don't Know 8
Refused 9

## I NCENTIVE

Thank you, those are all the survey questions. Would you like to be entered into the drawing for one of ten $\mathbf{\$ 1 0 0}$ gift cards?
IWR NOTE: This would be like an Amazon or Visa gift card, your choice.

| Choices | 0 | $==>/$ TASK3 |
| :--- | :--- | :--- |
| No, opt-out | 1 |  |
| Yes, enter drawing |  |  |

DRAWING
If selected, would you like us to contact you by phone or email?
==> SKIP TO TASK3 IF INCENTIVE=0

| Choices | 0 |
| :--- | :--- |
| Phone | 1 |
| Email |  |

EMAIL
ENTER \& VERIFY EMAIL ADDRESS (Format: emailme@gmail.com)
What is your email address?
IWR NOTE: This is confidential, and will only be used by PSU for the drawing.
==> SKIP +1 IF NOT(DRAWING=1)

| Choices | 0 | DO |
| :--- | :--- | :--- |
| Enter Email |  |  |

## PHONE VERIFY

PHONE NUMBER FORMAT: (999-999-9999)
Should we call you on this number or a different number?
==> SKIP +1 IF NOT(DRAWING=0)
Choices
This number () 0 D

Different number (please specify): $\quad 1 \quad 0$

## NAME

VERIFY SPELLING
And what is just your first name?
IWR NOTES: We will not connect your name to your data; it will only be used for the drawing. If R is refusing, we can contact them anonymously via their preferred contact method.

| Choices |  |  |
| :--- | :--- | :--- |
| Enter First Name | 0 | DO |
| Refused | 9 |  |

## TASK3

The next part of this study involves households keeping a Kitchen Diary, tracking the food they dispose of at home. If your household participated in that second study, you would be compensated at least $\$ 50$ for your time. Would you be interested in having the researchers contact you to tell you more about this?
IWR NOTES: You do not have to commit to anything right now. Please record any additional or specific contact requests made in IWR_NOTES.

## Choices

No, opt-out 0
Yes, ok to re-contact
1

## SAMECONTACT

Can we use the same contact information you just provided?
==> SKIP +1 IF NOT (INCENTIVE=1)
Choices No please use different contact info 0
Yes, use same contact info 1

$$
==>/ \text { INT99 }
$$

## CONTACT

## Would you like the researchers to contact you by phone or email?

| Choices | 0 |
| :--- | :--- |
| Phone | 1 |
| Email |  |


| EMAIL2 |  |  |
| :---: | :---: | :---: |
| ENTER \& VERIFY EMAIL ADDRESS (Format: emailme@gmail.com) |  |  |
| What is your email address? |  |  |
| IWR NOTE: This is confidential, and will only be used by PSU for the drawing. ==> SKIP +1 IF NOT(CONTACT=1) |  |  |
|  |  |  |
| Choices |  |  |
| Enter Email | 0 | DO |
| PHONE2 |  |  |
| PHONE NUMBER FORMAT: (999-999-9999) |  |  |
| Should we call you on this number or a different number? |  |  |
| Choices |  |  |
| This number () | 0 | D |
| Different number (please specify): | 1 | 0 |
|  |  |  |
| NAME2 |  |  |
| VERIFY SPELLING |  |  |
| And what is just your first name? |  |  |
| IWR NOTES: We will not connect your name to your data; it will only be used for the drawing. If $R$ is refusing, we can contact them anonymously via their preferred contact method. ==> SKIP TO INT99 IF NAME=0,9 |  |  |
| Choices |  |  |
| Enter First Name | 0 | DO |
| Refused | 9 |  |

## I NT99

## Thank you! That completes the survey. Have a good day / night.

## IWR_NOTES

## ******HANG UP, ANSWER NEXT QUESTION******

## BRI EF INTERVI EWER NOTES

BRIEF INTERVIEWER NOTES: Record any unusual circumstances that significantly impacted the data quality, or the time it took to complete the survey. Consider things the R said that might bias or effect their answers, how much difficulty they had understanding the questions, if their level of language fluency impacted their comprehension, if they were extremely distracted, not taking the survey seriously, etc.

| Choices | 0 | D | $==>/$ END |
| :--- | :--- | :--- | :--- |
| No Comments | 0 | 0 | $==>/ E N D$ |
| Add BRIEF Notes: | 1 | 0 |  |

## Special Study Information

PURPOSE: The Oregon Food Study is being conducted on behalf of researchers at PSU's Community Environmental Services. This survey aims to better understand how Oregonians purchase, use and dispose of food. The results will be used to develop programs about food management.
REFUSAL CONVERSION: It's really important that we hear from everyone. The information you provide will help Oregon develop programs about food management. If now is not a good time, I would be happy to set up a callback to conduct the survey at a better time for you.
HOW THE PHONE NUMBER WAS SELECTED: Your number was randomly selected from all households in Oregon. STUDY CONTACTS:
If you have questions about this research, you may contact the study director Dr. Christa McDermott, Director of Community Environmental Services at Portland State University, 503-725-5949.
If you have questions about the validity of the study or the Survey Research Lab, you may call Dr. Debi Elliott, the Director of the Lab at Portland State University, 503-725-5198.
If you have concerns or questions about your rights as a research subject, please contact the PSU Human Subjects Research Review Committee, 503-725-2227.


[^0]:    ${ }^{1}$ US Census, American Community Survey 2011-2015 5-Year Estimates for Demographic and Housing Estimates (DP05) and Occupancy Characteristics (S2501).
    ${ }^{2}$ OHSU Oregon Office of Rural Health, http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/rural-definitions/index.cfm.

[^1]:    Q1: I'm going to read a list of possible places where your household may purchase or get food to eat at home. Please tell me all that apply by saying "yes" or "no" after each.
    Unweighted $\mathrm{N}=486$

[^2]:    $* \mathrm{p}<.05^{* *} \mathrm{p}<.01^{* * *} \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
    D1B: Approximately how much money does your household spend on food and beverages eaten AWAY FROM HOME each week? Your best guess is fine.
    Unweighted $\mathrm{N}=486$

[^3]:    $* \mathrm{p}<.05 * * \mathrm{p}<.01 * * * \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
    When shopping for food, how often does your household do the following:
    Q4A: Buy more of a product than you were planning to because it is on sale.
    Q4B: Buy something unplanned because it looks good at the time.
    Q4C: Buy food in larger quantities than desired due to the way food is packaged.
    D1A: Approximately how much money does your household spend on food and beverages eaten AT HOME each week? Your best guess is fine.
    D1B: Approximately how much money does your household spend on food and beverages eaten AWAY FROM HOME each week? Your best guess is fine.
    Unweighted $N=486$

[^4]:    *p<. $055^{* *} \mathrm{p}<.01{ }^{* * *} \mathrm{p}<.001$ no notation: difference across groups was not statistically significant
    Q9: Considering the food your household throws away or composts in the average week, how much of that do you think could be avoided?
    Unweighted $\mathrm{N}=486$

[^5]:    How strongly do you agree or disagree with the following statements? Q15B: I believe my household should reduce the amount of food we throw away.
    Unweighted $\mathrm{N}=486$

[^6]:    How strongly do you agree or disagree with the following statements?
    Q15B: I believe my household should reduce the amount of food we throw away.
    Unweighted $n=281$; Full Sample $n=486$

[^7]:    *p<. $055^{* * \mathrm{p}<.01}{ }^{* * * \mathrm{p}<.001 ~ n o ~ n o t a t i o n: ~ d i f f e r e n c e ~ a c r o s s ~ g r o u p s ~ w a s ~ n o t ~ s t a t i s t i c a l l y ~ s i g n i f i c a n t ~}$
    Q13: Thinking of the average American, do you think the amount of food you throw out or compost is a lot more, a little bit more, the same, a little bit less, or a lot less?
    Unweighted $N=486$

[^8]:    Food is often marked with a "use by," "sell by," or "best by" date. What do you generally do with the following foods after the date has passed?

    Q10A: Fresh meat or fish; Unweighted $\mathrm{n}=53$
    Q10B: Eggs or dairy; Unweighted $\mathrm{n}=72$
    Q10C: Fresh fruit or vegetables; Unweighted $n=45$
    Q10D: Canned foods; Unweighted $\mathrm{n}=80$
    Q10E: Condiments, for example, mayonnaise, mustard, or salad dressings; Unweighted $\mathrm{n}=109$
    Unweighted Full Sample $n=486$

[^9]:    *p<. $055^{* *} \mathrm{p}<.01$ ***p<. 001 no notation: difference across groups was not statistically significant Q11: How often do you clean out your fridge?
    Unweighted $\mathrm{N}=486$

[^10]:    Generally, how often do you or other household members take the following actions:
    Q12C: When fruits or vegetables are bruised, you remove the bad part and eat the rest?
    Q12F: Manage food in the refrigerator by storing items that need to be eaten the soonest in a designated area?
    Q12D: Use vegetable peels and stalks in cooking (for example, soups)?
    Q12E: Use bones for cooking (for example, soups)?
    Unweighted $\mathrm{N}=486$

[^11]:    *p<. $05 * * \mathrm{p}<.01 * * * \mathrm{p}<.001$ no notation: difference across groups was not statistically significant How strongly do you agree or disagree with the following statements?

    Q15F: Work and social life can make managing food at home difficult, leading to food going uneaten. Unweighted $\mathrm{N}=486$

