

TECHNICAL REPORT

The State of the
American Refrigerator:
July 2020 Survey
Sample Averages & Proportions

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Summary: From July 6–8, 2020, we administered a survey via Qualtrics to 518 respondents from throughout the United States who are part of Qualtrics' online panels. The survey replicates many key questions asked on a similar survey administered in the Autumn of 2018 as detailed in Davenport, Qi and Roe (2019, <https://doi.org/10.1016/j.resconrec.2019.104440>). The survey was approved by The Ohio State University Internal Review Board, and all respondents provided informed consent. The median respondent completed the survey in less than 24 minutes. Below we present the questions and response options with the wording as presented to respondents along with summary figures (proportions for categorical data and means, standard deviations, and medians for continuous variables). All summary statistics reflect 518 observations (unless otherwise noted) and are calculated using post-survey weights that were developed to improve sample representation for key race, income, age, and household size categories (see the final page for details).

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Screening Questions

S1 Are you the primary grocery shopper in the household? Select one.

Yes	86.12%
No	0.00% – <i>screening criteria</i>
Joint or shared responsibility	13.88%

S2 Do you cook or prepare food at home? Select one.

Do not cook or prepare food at home	0.00% – <i>screening criteria</i>
Less than 1 time per week	0.00% – <i>screening criteria</i>
1-2 times per week	6.77%
3-4 times per week	21.05%
More than 4 times per week	72.18%

S3 Do you live in a household with a...? Select all that apply.

Refrigerator	100.00% – <i>screening criteria</i>
Freezer	79.57%
Microwave	97.70%
Toaster	90.05%
None of the above	0.00% – <i>screening criteria</i>

S4 Are you currently at home and do you have access to your refrigerator? Select one.

Yes	100.00%
No	0.00% – <i>screening criteria</i>

S5 Which of the following categories best describes your age? Select one.

Under 18 years	0.00% – <i>screening criteria</i>
18-24	0.45%
25-34	25.63%
35-44	15.18%
45-54	17.98%
55-64	21.22%
65+ years	19.54%

S6 How many people live in your household, including yourself? Enter in the number for each category that applies. Percent by quantity for each cell.

<u>Household members</u>	<u>Current</u>	<u>A year ago</u>
Children 0-5 years of age	0 (90.63%)	0 (90.28%)
	1 (6.37%)	1 (7.03%)
	≥ 2 (2.99%)	≥ 2 (2.69%)
Children 6-17 years of age	0 (79.66%)	0 (78.52%)
	1 (11.14%)	1 (10.56%)
	≥ 2 (9.20%)	≥ 2 (10.92%)
Male adults 18 years or older	0 (24.33%)	0 (24.04%)
	1 (65.27%)	1 (64.30%)
	≥ 2 (10.40%)	≥ 2 (11.65%)
Female adults 18 years or older	0 (13.22%)	0 (13.12%)
	1 (74.25%)	1 (73.42%)
	≥ 2 (12.53%)	≥ 2 (13.46%)

<u>Total Household Size</u>	<u>Current</u>	<u>A year ago</u>
1	23.97%	23.44%
2	41.11%	40.67%
3	16.79%	15.47%
≥ 4	18.13%	20.43%

Change in Household Size: Current vs. Last Year

Smaller	5.08%
No change	90.98%
Larger	3.94%

Consent

Researchers from The Ohio State University would like to ask you some questions about how you purchase, store, consume and discard food in your home; questions about your refrigerator; questions about you and your household; and questions about how the onset of the COVID-19 pandemic has affected you and your household. These questions are being asked by Professor Brian Roe of Ohio State University and will take about 25 to 40 minutes to answer. You will also be eligible to complete a follow up survey should you choose to complete the first survey. The follow up survey would be available about one week after the completion of the first survey. The follow up survey would take about 10 minutes to complete.

The survey requires you to complete both multiple choice and open ended (write in) questions. Open ended questions should require brief responses, but the length of the response is up to you. This study does not require the study coordinator to access any of your personal information. You will not be asked to provide any personal or sensitive information or any information that can identify who you are. Your survey responses, but no information that can identify who you are, may be shared with other researchers in the future. Information provided to this study does not have the potential to damage your financial standing, employability or reputation, or place you at risk of criminal or civil liability.

Your participation is voluntary, and you may skip any question or request for any reason. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may choose to stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. There are no direct benefits to you from participating. You will receive compensation at the level highlighted when you clicked upon the offer to take the survey.

If you have questions about the survey you may contact Brian Roe at 614-688-5777. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

Do you consent to participate?

Yes	100.00%
No	0.00% – <i>screening criteria</i>

Inventory Questions

This section of the survey will feature several sets of questions. Each set of questions will ask you about different categories of food in your refrigerator. A category will be listed. For that category, please count the number of items in the product category. For example, 2 cucumbers, 1 bag of spinach, and 1.5 bell peppers would be 3 items for vegetables. If you do not have any items in a particular category, enter 0. Please only count the items in your refrigerator and not any items (such as fruit or vegetables) you keep on the counter. A particular item will be randomly selected from the items you counted, and you will be asked several follow up questions about that item. The questions will require you to look at the package and label.

The categories you will be asked about include:

- Vegetables
- Fruit
- Dairy and Non-dairy Alternatives
- Meat/Poultry/Fish
- Beverages
- Prepared/Leftover Items
- Condiments/Sauces/Jarred Foods
- Other Items

Vegetables

Q1 Please count the number of vegetable items in your refrigerator(s) and enter that number. For example, 1 bag of baby carrots, half a bag of whole carrots, and 0.3 head of romaine would be 3 items. Please count tomatoes as a vegetable. Please do not count pickles as a vegetable.

0	5.66%
1	5.51%
2	9.68%
3	11.96%
4	15.01%
5	19.24%
6	8.06%
7	5.62%
8	3.95%
9	2.87%
10	3.96%
11	0.83%
12	1.78%
13	0.83%
14	0.18%
15	0.73%
16	0.00%
17	0.06%
18	0.19%
19	0.00%
20	1.09%
More than 20	2.77%
Mean*	5.41
SD	4.28
Median	5

* "More than 20" category assigned a value of 21

Q2 Which is the randomly selected item. (n=500)

Asparagus	8.09%
Avocado(es)	7.89%
Beets	1.90%
Broccoli	13.64%
Brussels sprouts	2.87%
Carrot(s)	20.71%
Cauliflower	2.41%
Celery	3.96%
Corn	1.63%
Cucumber(s)	3.64%
Eggplant(s)	0.04%
Fresh vegetable combination	0.76%
Garlic	1.26%
Green beans	1.10%
Lettuce (e.g., iceberg, romaine, spinach, kale, etc.)	5.27%
Mushrooms	5.23%
Onion(s)	3.96%
Pepper(s)	2.11%
Potato (e.g., sweet, russet, etc.)	1.84%
Pumpkins(s)	0.03%
Radish(es)	1.49%
Squash(es)	0.83%
Tomato(es)	6.48%
Zucchini(s)	1.87%
Other	1.01%

Q3 When purchased, was this item originally...? *Select one.* (n=500)

Fresh	94.11%
Frozen	3.22%
Canned	2.40%
Dried	0.27%

Q4 Do any of the following words or concepts apply to this item? *Select all that apply.* (n=500)

Organic	27.70%
Premium	16.89%
Not genetically modified (GM)/GM free/non-GMA	12.06%
Not applicable	56.03%

Q5 Is this item in original packaging that has a label? *Select one.* (n=500)

Yes	48.42%
No	51.58%

Q6 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=238)

“Best if used by”	39.13%
“Best by”	16.60%
“Best before”	4.47%
“Use by”	2.73%
“Sell by”	2.41%
“Packed on”	3.69%
Other phrase	0.27%
No words, but there is a date	3.39%
I don’t have the original package/I can’t see the date clearly/I don’t know the date	9.75%
Not applicable – no date	17.55%

Q7 What is the date on the package?

Various

Q8 Is the quantity or weight marked on the package? *Select one.* (n=238)

Yes	67.37%
No	32.63%

Q9 What is the quantity/weight marked on the package?

Various

Q10 Please indicate how much of this item is left. *Select one.* (n=500)

Few left (1-24% left)	19.87%
Somewhat left (25-49% left)	18.11%
About half or more than half left (50-74% left)	27.66%
Most left (75-99% left)	10.24%
All of it/unopened (100%)	24.13%

Q11 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=500)

Throw it out	6.94%
Compost it	3.13%
Feed it to animal or pet	2.01%
Give it away	0.99%
Eat it in 4 or more days from now	26.32%
Eat it in the next 1-3 days	61.35%
Don’t know	2.96%

Fruit

Q12 Please count the number of fruit items in your refrigerator(s) and enter that number. For example, 1 container of strawberries, 4 bananas, and sliced watermelon would be 3 items. *Select one.*

0	13.53%
1	15.63%
2	16.08%
3	23.06%
4	11.13%
5	10.28%
6	2.97%
7	0.93%
8	0.39%
9	2.94%
10	0.78%
11	0.52%
12	0.61%
13	0.00%
14	0.18%
15	0.88%
16	0.00%
17	0.00%
18	0.00%
19	0.00%
20	0.06%
More than 20	0.03%
Mean*	3.05
SD	2.66
Median	3

* "More than 20" category assigned a value of 21

Q13 The randomly selected item is. *Select one.* (n=468)

Apple(s)	37.40%
Banana(s)	13.33%
Blackberries	0.39%
Blueberries	9.84%
Cantaloupe(s)	1.79%
Cherries	6.58%
Grapefruit(s)	0.29%
Grapes	8.01%
Guava	0.16%
Kiwi	0.12%
Lemon(s)	1.37%
Lime(s)	0.22%
Mango(es)	0.20%
Nectarines	0.35%
Orange(s)	3.38%
Peach(es)	1.80%
Pear(s)	0.45%
Pineapple(s)	1.00%
Plum(s)	0.20%
Raspberries	0.88%
Strawberries	6.72%
Tangerine(s)	0.31%
Watermelon(s)	3.69%
OTHER (fruit)	1.53%

Q14 When purchased, was this item originally...? *Select one.* (n=468)

Fresh	97.76%
Frozen	1.20%
Canned	1.04%
Dried	0.00%

Q15 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=468)

Organic	25.17%
Premium	12.00%
Not genetically modified (GM)/GM free/non-GMO	8.77%
Not applicable	60.83%

Q16 Is this item in original packaging that has a label? *Select one.* (n=468)

Yes	43.09%
No	56.91%

Q17 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=203)

“Best if used by”	10.79%
“Best by”	10.36%
“Best before”	19.56%
“Use by”	4.49%
“Sell by”	3.30%
“Packed on”	2.33%
Other phrase	1.88%
No words, but there is a date	2.34%
I don’t have the original package/I can’t see the date clearly/I don’t know the date	7.72%
Not applicable – no date	37.23%

Q18 What is the date on the package?

Various

Q19 Is the quantity or weight marked on the package? *Select one.* (n=203)

Yes	57.81%
No	42.19%

Q20 What is the quantity/weight marked on the package? (pick 1 unit)

Various

Q21 Please indicate how much of this item is left. *Select one.* (n=468)

Few left (1-24% left)	19.75%
Somewhat left (25-49% left)	27.83%
About half or more than half left (50-74% left)	18.16%
Most left (75-99% left)	20.33%
All of it/unopened (100%)	13.92%

Q22 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=468)

Throw it out	3.77%
Compost it	1.19%
Feed it to animal or pet	4.19%
Give it away	5.52%
Eat it 4 or more days from now	22.30%
Eat it in the next 1-3 days	62.36%
Don’t know	0.48%

Dairy and Non-dairy Alternatives

Q23 Please count the number of dairy and non-dairy alternative items in your refrigerator and enter that number. Please include eggs in dairy. For example, 1 gallon of milk, 2 containers of yogurt, 1 bag of shredded mozzarella cheese, 1 bag of shredded cheddar cheese and 3 eggs would be 5 items. Please consider eggs, regardless of how many, as 1 item for this count. Select one.

0	6.12%
1	13.56%
2	10.96%
3	9.11%
4	12.20%
5	15.58%
6	7.50%
7	4.37%
8	4.15%
9	2.32%
10	4.59%
11	1.60%
12	2.32%
13	0.17%
14	0.09%
15	1.31%
16	0.16%
17	0.00%
18	0.17%
19	0.00%
20	0.68%
More than 20	3.04%
Mean*	5.17
SD	4.51
Median	4

* "More than 20" category assigned a value of 21

Q24 Which is the randomly selected item. (n=496)

Baby/infant formula	0.24%
Butter/margarine spread	7.44%
Buttermilk	0.85%
Cheese	23.13%
Cottage cheese	2.65%
Cream cheese	2.69%
Eggs	19.11%
Half and half	2.69%
Heavy whipping cream	0.08%
Milk	24.48%
Sour cream	1.33%
Yogurt	6.81%
OTHER (dairy/non-dairy alternatives)	8.50%

Q25 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=496)

Organic	18.58%
Natural	20.42%
Fresh	26.89%
Premium	9.75%
Not genetically modified (GM)/GM free/non-GMO	9.28%
No antibiotics/no hormones/grass-fed/cage-free/ free range	9.20%
Not applicable	43.48%

Q26 Is this item in original packaging that has a label? *Select one.* (n=496)

Yes	82.15%
No	17.85%

Q27 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=417)

"Best if used by"	33.79%
"Best by"	26.18%
"Best before"	5.77%
"Use by"	12.56%
"Sell by"	8.67%
"Packed on"	0.19%
Other phrase	0.05%
No words, but there is a date	4.83%
I can't see the date clearly/I don't know the date	6.88%
Not applicable – no date	1.08%

Q28 What is the date on the package?

Various

Q29 Is the quantity or weight marked on the package? *Select one.* (n=417)

Yes	88.42%
No	11.58%

Q30 What is the quantity/weight marked on the package?

Various

Q31 Please indicate how much of this item is left. *Select one.* (n=496)

Few left (1-24% left)	17.05%
Somewhat left (25-49% left)	17.17%
About half or more than half left (50-74% left)	27.33%
Most left (75-99% left)	21.37%
All of it/unopened (100%)	17.07%

Q32 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=496)

Throw it out	5.61%
Compost it	2.29%
Feed it to animal or pet	0.21%
Give it away	0.60%
Eat it 4 or more days from now	50.17%
Eat it in the next 1-3 days	39.78%
Don't know	1.77%

Meat/Poultry/Fish

Q33 Please count the number of raw meats, poultry, fish and deli meat items in your refrigerator(s) and enter that number. Please do not count cooked meat/poultry items other than deli meats. For example, half of a package of sliced deli turkey, 2 packages of raw bacon and a single 3lb-package of raw/uncooked hamburger meat count as 3 items. *Select one.*

0	39.31%
1	16.11%
2	19.88%
3	10.11%
4	3.94%
5	2.36%
6	3.21%
7	1.65%
8	0.42%
9	0.32%
10	0.30%
11	0.15%
12	1.73%
13	0.17%
14	0.00%
15	0.35%
16	0.00%
17	0.00%
18	0.00%
19	0.00%
20	0.00%
More than 20	0.00%
Mean*	1.84
SD	2.50
Median	1

* "More than 20" category assigned a value of 21

Q34 Which is the randomly selected item. (n=362)

Bacon	16.79%
Cuts of chicken or turkey (e.g., breasts, thighs, drumsticks)	24.79%
Cuts of port (e.g., tenderloin, ribs, chops)	2.67%
Cuts of red meat (e.g., steak, stew, tenderloin)	4.49%
Deli meat	22.62%
Fish	5.46%
Game meat (e.g., duck, quail, venison etc.)	1.17%
Ground beef	12.35%
Ground turkey or chicken	0.84%
Hot dogs	2.73%
Lamb	0.08%
Sausage (chicken or pork)	3.53%
Whole turkey or chicken	1.27%
OTHER (meat/poultry/fish)	1.23%

Q35 Do any of the following words or concepts apply to this item? *Select all that apply.* (n=362)

Organic	17.94%
Natural	15.85%
Fresh	38.45%
Premium	6.84%
Not genetically modified (GM)/GM free/non-GMO	1.87%
No antibiotics/no hormones/grass-fed	4.87%
Not applicable	35.60%

Q36 Is this item in original packaging that has a label? *Select one.* (n=362)

Yes	63.09%
No	36.91%

Q37 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=234)

“Best if used by”	22.84%
“Best by”	11.89%
“Best before”	22.23%
“Use by”	15.28%
“Sell by”	9.56%
“Freeze by”	0.58%
Other phrase	1.25%
No words, but there is a date	1.53%
I can’t see the date clearly/I don’t know the date	9.64%
Not applicable – no date	5.20%

Q38 What is the date on the package?

Various

Q39 Is the quantity or weight marked on the package? *Select one.* (n=234)

Yes	92.25%
No	7.75%

Q40 What is the quantity/weight marked on the package?

Various

Q41 Please indicate how much of this item is left. *Select one.* (n=362)

Few left (1-24% left)	15.19%
Somewhat left (25-49% left)	24.24%
About half or more than half left (50-74% left)	15.28%
Most left (75-99% left)	12.19%
All of it/unopened (100%)	33.09%

Q42 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=362)

Throw it out	2.33%
Compost it	4.05%
Feed it to animal or pet	0.89%
Give it away	0.49%
Eat it 4 or more days from now	40.17%
Eat it in the next 1-3 days	51.14%
Don't know	1.72%

Beverages

Q43 Please count the number of beverages in your refrigerator(s) and enter that number. Please do not consider milk or other items listed as dairy or non-dairy alternatives. For example, four 12 oz. bottles of beer and one 2-liter bottle of Coke count as 2 items. *Select one.*

0	12.54%
1	17.32%
2	15.09%
3	17.42%
4	11.17%
5	7.09%
6	7.89%
7	2.33%
8	1.56%
9	0.59%
10	1.87%
11	0.52%
12	2.05%
13	0.06%
14	0.04%
15	0.17%
16	0.04%
17	0.00%
18	0.61%
19	0.00%
20	0.39%
More than 20	1.24%
Mean*	3.60
SD	3.68
Median	3

* "More than 20" category assigned a value of 21

Q44 Which is the randomly selected item. (n=445)

Beer/Wine/Alcohol	13.75%
Coffee	2.81%
Energy drink	0.84%
Fruit juice	12.39%
100% fruit juice	14.90%
Soda	20.66%
Sparkling beverages	10.19%
Sports drink	2.01%
Tea	6.13%
Vegetable juice	1.49%
Water	11.06%
OTHER (beverage)	3.74%

Q45 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=445)

Organic	9.85%
Natural	21.04%
Fresh	10.28%
Premium	7.70%
Not applicable	63.30%

Q46 Is this item in original packaging that has a label? *Select one.* (n=445)

Yes	80.37%
No	19.63%

Q47 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=370)

"Best if used by"	9.96%
"Best by"	10.44%
"Best before"	12.11%
"Use by"	5.12%
"Sell by"	4.58%
Other phrase	0.78%
No words, but there is a date	6.63%
I can't see the date clearly/I don't know the date	17.17%
Not applicable – no date	33.22%

Q48 What is the date on the package?

Various

Q49 Is the quantity or weight marked on the package? *Select one.* (n=370)

Yes	87.66%
No	12.34%

Q50 What is the quantity/weight marked on the package?
Various

Q51 Please indicate how much of this item is left. *Select one.* (n=445)

Few left (1-24% left)	14.22%
Somewhat left (25-49% left)	11.65%
About half or more than half left (50-74% left)	25.80%
Most left (75-99% left)	19.11%
All of it/unopened (100%)	29.22%

Q52 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=445)

Throw it out	1.29%
Compost it	1.24%
Give it to animal or pet	2.34%
Give it away	0.47%
Drink it 4 or more days from now	55.17%
Drink it in the next 1-3 days	35.41%
Don't know	4.55%

Prepared/Leftovers

Q53 Please count the number of prepared foods or leftovers in your refrigerator(s) and enter that number. For example, 2 servings of lasagna, half a pepperoni pizza, and roasted chicken would be 3 items. *Select one.*

0	52.27%
1	23.00%
2	8.79%
3	7.70%
4	3.06%
5	1.98%
6	0.07%
7	0.68%
8	0.68%
9	0.00%
10	0.19%
11	0.00%
12	0.04%
13	0.06%
14	0.00%
15	0.00%
16	0.00%
17	0.06%
18	0.00%
19	0.00%
20	0.00%
More than 20	1.41%
Mean*	1.30
SD	2.85
Median	0

* "More than 20" category assigned a value of 21

Q54 Which is the randomly selected item.

Various

Q55 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=282)

Organic	6.57%
Natural	13.43%
Fresh	11.90%
Premium	4.60%
Not genetically modified (GM)/GM free/non-GMO	4.29%
No antibiotics/no hormones/grass fed	11.43%
I don't remember/I don't know	12.71%
Not applicable	42.31%

Q56 Please indicate how much of the left over remains left over. *Select one.* (n=282)

Few left (1-24% left)	25.53%
Somewhat left (25-49% left)	38.40%
About half or more than half left (50-74% left)	25.63%
Most left (75-99% left)	4.00%
All of it/unopened (100%)	6.44%

Q57 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=282)

Throw it out	8.30%
Compost it	1.02%
Feed it to animal or pet	5.09%
Give it away	0.63%
Eat it 4 or more days from now	18.74%
Eat it in the next 1-3 days	65.50%
Don't know	1.87%

Condiments/sauces/jarred foods

Q58 Please count the number of condiments, sauce, and jarred food items in your refrigerator(s) and enter that number. For example, mustard, a jar of pasta sauce, and a jar of pickles would be 3 items. *Select one.*

0	16.60%
1	6.14%
2	11.86%
3	7.96%
4	7.60%
5	7.83%
6	6.61%
7	4.48%
8	3.86%
9	2.25%
10	14.63%
11	0.88%
12	1.97%
13	0.50%
14	0.45%
15	1.87%
16	0.50%
17	0.36%
18	0.12%
19	0.21%
20	0.04%
More than 20	3.28%
Mean*	5.56
SD	5.00
Median	4

* "More than 20" category assigned a value of 21

Q59 Which is the randomly selected item.

Various

Q60 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=463)

Organic	8.25%
Natural	10.42%
Fresh	4.81%
Premium	6.28%
Not genetically modified (GM)/GM free/non-GMO	6.76%
Not applicable	66.99%

Q61 Is this item in original packaging that has a label? *Select one.* (n=463)

Yes	80.86%
No	19.14%

Q62 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=406)

“Best if used by”	29.08%
“Best by”	20.77%
“Best before”	4.69%
“Use by”	5.76%
“Sell by”	1.19%
Other phrase	1.09%
No words, but there is a date	5.25%
I can’t see the date clearly/I don’t know the date	22.80%
Not applicable – no date	9.37%

Q63 What is the date on the package?

Various

Q64 Is the quantity or weight marked on the package? *Select one.* (n=406)

Yes	84.61%
No	15.39%

Q65 What is the quantity/weight marked on the package? (pick 1 unit)

Various

Q66 Please indicate how much of this item is left. *Select one.* (n=463)

Few left (1-24% left)	18.03%
Somewhat left (25-49% left)	19.64%
About half or more than half left (50-74% left)	34.25%
Most left (75-99% left)	23.57%
All of it/unopened (100%)	4.51%

Q67 What is the most likely outcome for the amount remaining? *Select all that apply.* (n=463)

Throw it out	2.00%
Compost it	0.65%
Feed it to animal or pet	2.66%
Give it away	2.35%
Eat it 4 or more months from now	30.11%
Eat it in the next 1-3 months	49.02%
Don’t know	13.70%

Other

Q68 Please count the number of other food and beverage items intended for human consumption that did not fit in the above categories in your refrigerator(s) and enter that number.

0	62.32%
1	6.24%
2	6.16%
3	8.40%
4	6.13%
5	1.50%
6	0.93%
7	0.82%
8	0.64%
9	0.08%
10	4.29%
11	1.41%
12	0.10%
13	0.00%
14	0.61%
15	0.00%
16	0.00%
17	0.00%
18	0.06%
19	0.00%
20	0.00%
More than 20	0.30%
Mean*	1.69
SD	3.11
Median	0

* "More than 20" category assigned a value of 21

Q69 Which is the randomly selected item.

Various

Q70 Do any of the following words or concepts apply to this item? *Select all that apply.*
(n=182)

Organic	4.67%
Natural	20.72%
Fresh	14.08%
Premium	3.87%
Not genetically modified (GM)/GM free/non-GMO	2.75%
No antibiotics/no hormones/grass fed	0.78%
Not applicable	57.15%

Q71 Is this item in original packaging that has a label? *Select one.* (n=182)

Yes	62.87%
No	37.13%

Q72 Please look for the expiration or best by date on the package or label, if applicable. What phrase accompanies the date? *Select one.* (n=120)

"Best if used by"	14.54%
"Best by"	18.34%
"Best before"	8.27%
"Use by"	2.99%
"Sell by"	4.32%
"Packed on"	18.97%
"Freeze by"	0.00%
Other phrase	2.71%
No words, but there is a date	1.56%
I can't see the date clearly/I don't know the date	20.44%
Not applicable – no date	7.85%

Q73 What is the date on the package?

Various

Q74 Is the quantity or weight marked on the package? *Select one.* (n=120)

Yes	77.37%
No	22.63%

Q75 What is the quantity/weight marked on the package? (pick 1 unit)

Various

Q76 Please indicate how much of this item is left. *Select one.* (n=182)

Few left (1-24% left)	7.76%
Somewhat left (25-49% left)	17.34%
About half or more than half left (50-74% left)	20.86%
Most left (75-99% left)	36.13%
All of it/unopened (100%)	17.91%

Q77 What is the most likely outcome for the amount remaining? Select all that apply. (n=182)

Throw it out	5.09%
Compost it	1.56%
Feed it to animal or pet	1.95%
Give it away	0.69%
Eat it more than a month from now	20.80%
Eat it within the next month	13.55%
Eat it within the next 1-3 days	9.79%
Eat it within the next 4-7 days	8.10%
Eat it within the next 7-14 days	16.11%
Don't know	22.90%

Selected Item Module

Q78 Thinking about the {randomly selected item} that you detailed earlier in the survey, what was your intended use for this item? For example, I was going to use it to make a new recipe, I keep it for my kids to snack on, I like to keep some on hand in case we have guests.

Various

Q79 Where did you buy this item? *Select one.*

Supermarket or grocery store (Kroger, Walmart, Whole Foods, etc.)	76.49%
Farmer's market	6.85%
Convenience or corner store	1.67%
Specialty shop (e.g., butcher shop)	1.98%
Bulk or mega store (e.g., Costco, Sam's Club)	9.10%
Restaurant	0.52%
Other	1.30%
Not applicable (e.g., home grown, given not bought)	2.08%

Q80 Was/were the items on sale? *Select one.*

Yes	21.41%
No	62.21%
Don't remember	13.67%
Not applicable	2.71%

Q81 Do you think you will consume the rest of the item? If no, why not? *Select all that apply.*

Moldy, spoiled, or left out too long	10.03%
Don't want leftovers	3.78%
Don't taste/smell/look good	4.62%
Past date on label	2.73%
Improperly cooked	0.25%
Not safe to eat	0.61%
Purchased/prepared too much	0.81%
Habits/preferences/plans changed	0.39%
Desired situation to use hasn't arisen	3.26%
Inconvenient or difficult to use	0.25%
Other (specify)	1.26%
Yes, I will consume the rest of the item	79.40%

Grocery Shopping Module

Q82 When did you last get groceries? Do not consider occasions where a few items were obtained because they were forgotten the last time you got groceries. *Select one.*

Today	10.69%
1-4 days ago	57.54%
5-7 days ago	20.60%
8-14 days ago	7.24%
More than 2 weeks ago	1.38%
More than 1 month ago	2.54%

Q83 When do you plan to get groceries next? Do not consider occasions where a few items will be obtained because they were forgotten the last time you got groceries. *Select one.*

Today	5.06%
1-4 days	44.65%
5-7 days	31.49%
8-14 days	10.64%
After 2 weeks	4.53%
Don't know	3.63%

Q84 About how often did you get groceries in the past 60 days? Do not consider occasions where a few items are obtained because they were forgotten the previous time you got groceries. *Select one.*

Twice a week or more	15.28%
Once a week	55.40%
2-3 times a month	22.34%
Once a month	5.29%
Less than once a month	1.69%

Q85 In the past month, about what percent of your groceries were obtained by: Mean (SD)

Traveling to a facility and shopping inside	81.12%
	(31.10)
Traveling to a facility and picking up groceries I had previously ordered	10.61%
	(23.17)
Having groceries delivered to my home	5.40%
	(15.71)
Another way	2.87%
	(9.55)

Q86 Including any time spent traveling to and from the store and any time spent ordering items online (if applicable), approximately how much time does it take you each time you get groceries (including all stores and/or sites you visit for that trip)? Do not consider occasions where a few items were obtained because they were forgotten the last time you got groceries. *Select one.*

Less than 15 minutes	18.99%
15-29 minutes	20.62%
30-59 minutes	41.43%
60-89 minutes	13.44%
90-120 minutes	2.81%
More than 120 minutes	2.70%

Q87 Including all stores you visit for a grocery trip, approximately how much time did you spend on the road. Do not consider occasions where a few items are obtained because they were forgotten the last time you got groceries. *Select one.*

Less than 15 minutes	53.96%
15-29 minutes	30.07%
30-59 minutes	8.56%
60-89 minutes	3.85%
90-120 minutes	1.05%
More than 120 minutes	1.58%
Not applicable	0.92%

Q88 *Attention check*

Q89 What percent of your groceries come from the following: Mean (SD)

Supermarket or grocery store (Kroger, Walmart, Whole Foods, etc.)	77.23% (27.41)
Farmer's market	5.08% (14.10)
Convenience or corner store	1.70% (6.04)
Specialty shop (e.g., butcher shop)	1.48% (5.15)
Bulk or mega store (e.g., Costco, Sam's Club)	11.18% (19.25)
Food pantry or other emergency food provider	0.44% (2.59)
Home grown food	1.69% (8.85)
Community Supported Agriculture (CSA)	0.28% (1.83)
Other	0.91% (6.01)

Q90 What transportation do you primarily use to do your grocery shopping? *Select one.*

My own car	91.43%
Someone else's car	3.88%
Public transportation (e.g., bus)	1.47%
Taxi, Uber, Lyft or similar service	0.15%
Bike	0.00%
Walk	2.01%
Not applicable (groceries are delivered)	0.38%
Other	0.69%

Q91 For this question, please think about the last 30 days. Please estimate your household's typical weekly expenditure on groceries. DO NOT include spending on food eaten outside the home or restaurant take-out. *Enter only numbers - no dollar sign (\$) is needed*

Mean: 213.15, SD = 343.93, Median = 150

Q92 For this question, please think about the last 30 days. Please estimate your household's typical weekly expenditure on food eaten outside the home including restaurant take-out. *Enter only numbers - no dollar sign (\$) is needed*

Mean: 112.35, SD = 242.56, Median = 50

Q93 In the past 30 days, have you or has anyone in your household participated in government assistance nutrition programs, such as WIC, SNAP, Food Stamps, or Free or Reduced Lunch/Breakfast? *Select one.*

Yes	10.80%
No	89.05%
Don't know	0.15%

Q94 When you get groceries, how often do you look at nutrition labels on the package? *Select one.*

Always	20.17%
Often	37.77%
Sometimes	26.81%
Rarely	11.13%
Never	3.12%

Q95 When you get groceries, how often do you look at expiration or date labels on the package? *Select one.*

Always	47.38%
Often	26.36%
Sometimes	19.12%
Rarely	4.43%
Never	2.71%

Refrigerator Module

Q96 In the last 30 days, how many refrigerators (not freezers) have you used to keep food fresh in your household? *Select one.*

One	74.03%
Two – one full sized, one smaller one	7.36%
Two – both full sized	13.61%
More than two	2.79%
None	1.17%

Q97 Is your main or primary fridge currently...? *Select one.*

More full than it has normally been in the past 30 days	17.56%
About as full as it has normally been in the past 30 days	72.42%
More empty than it has normally been in the past 30 days	10.02%

Q98 Compared to last year at this time, would you say you have...? *Select one*

More food in the refrigerator due to changes related to COVID-19	33.14%
Less food in the refrigerator due to changes related to COVID-19	9.33%
About as much food in the refrigerator as this time of last year	57.52%

Q99 In the last 30 days, how many freezers have you used to keep food in your household? *Select one.*

	<u>0</u>	<u>1</u>	<u>2</u>	<u>More than 2</u>
Freezer as part of a combined refrigerator/freezer	5.83%	75.49%	15.83%	2.85%
Large stand alone freezers	70.97%	22.84%	2.66%	3.53%
Small stand alone freezers (6 cubic feet or less)	78.46%	15.23%	4.25%	2.06%

Q100 Compared to last year at this time, would you say you have ...? *Select one.*

More food in your freezer(s) due to changes related to COVID-19	35.81%
Less food in your freezer(s) due to changes related to COVID-19	12.05%
About as much food in your freezer(s) as this time of last year	52.14%

Q101 What brand is your main or primary refrigerator?

BOSCH	0.52%
Electrolux	0.58%
Frigidaire	18.33%
GE Appliance	18.41%
Haier	1.21%
Hisense	0.00%
Insignia	0.00%
KitchenAid	2.44%
LG	8.09%
MAYTAG	4.61%
Samsung	17.16%
Whirlpool	15.44%
Other	13.22%

Q102 If selected Other, the brand is...?

Various

Q103 What model number is your main or primary refrigerator? This is usually listed on a label like the one pictured below:(on an inside wall or inside the door of your refrigerator)

Various

Q104 Since the onset of COVID-19, how many additional of each of these did you start using?

	<u>0</u>	<u>1</u>	<u>2 or more</u>
Full-sized refrigerator(s)	74.11%	22.91%	2.98%
Smaller refrigerator(s)	92.48%	5.22%	2.29%
Full-sized freezer(s)	90.87%	5.38%	3.75%
Smaller freezer(s)	92.16%	5.46%	2.37%

Since the onset of COVID-19, the % who:

Added Any Refrigerator Capacity	27.31%
Added Any Freezer Capacity	11.24%
Added Either Refrigerator or Freezer Capacity	28.66%
Added Refrigerator and Freezer Capacity	9.90%

COVID-19 Module

Q105 In the past 30 days, were you employed as an essential worker?

Yes	25.14%
No	74.86%

Q106 Please indicate your status during the periods of time specified.

	<u>Essential Worker</u>	<u>Non-essential Worker</u>	<u>Not employed</u>
February 2020	27.62%	34.60%	37.78%
April 2020	25.50%	30.22%	44.28%
This time last year	28.86%	35.06%	35.06%

Q107 For a typical week during the past 30 days, on average, how many paid hours per week were you employed? (Maximum 80 hours)

Mean: 20.32, SD = 20.69, Median = 20

Employed (paid hours > 0)	57.57%
Not employed (paid hours = 0)	42.43%

Q108 Please think about the number of paid working hours you have had during the past 30 days. Would you say you have worked less, more or about the same number of hours compared to each period listed below? (select one per row)

Compared to...	<u>Much less work in the past 30 days</u>	<u>A little less</u>	<u>About the same</u>	<u>A little more</u>	<u>Much more work in the past 30 days</u>
February 2020	26.09%	2.91%	66.35%	2.07%	2.58%
April 2020	18.65%	5.41%	69.51%	4.12%	2.31%
This time last year	28.56%	3.69%	62.97%	2.22%	2.55%

Q109 Please think about your personal income from working during the past 30 days. Would you say you have received less, more or about the same personal income from working compared to each period listed below? (select one per row)

Compared to...	<u>Much less income in the past 30 days</u>	<u>A little less</u>	<u>About the same</u>	<u>A little more</u>	<u>Much more income in the past 30 days</u>
February 2020	13.80%	5.77%	72.26%	3.66%	4.51%
April 2020	10.26%	5.83%	74.75%	6.01%	3.15%
This time last year	16.16%	4.12%	69.25%	5.14%	5.33%

Q110 Now thinking about all members of your household, indicate how your household income from all sources during the past 30 days differs from each of the periods of time specified.

Compared to...	Much less income in the <u>past 30 days</u>	A little less	About the same	A little more	Much more income in the <u>past 30 days</u>
February 2020	13.04%	10.88%	69.71%	3.79%	2.58%
April 2020	9.92%	6.65%	76.03%	5.55%	1.85%
This time last year	14.91%	11.90%	64.04%	5.80%	3.35%

Q111 Which of the following have you or members of your household received since the onset of COVID-19? *Select all that apply.*

Unemployment compensation	13.80%
Economic Impact Payment/stimulus check	48.93%
Severance package	2.89%
An increase in other benefits (e.g., SNAP/food stamps)	7.01%
Not applicable	42.44%

Q112 What was the total amount you and other members of your household received from the stimulus check (Economic Impact Payment)? *Select one.*

\$0	11.18%
\$1-\$1,199	8.55%
\$1,200	31.74%
\$1,201-\$1,699	8.20%
\$1,700-\$2,199	3.35%
\$2,200 or more	36.98%

Q113 On a usual day, how many unpaid hours did you spend on feeding, food shopping, meal planning, meal preparation and clean up for members of your household, or as a volunteer activity for those outside your home?

hr/day in February 2020	Mean = 4.31, SD = 5.22, Median = 2.3
hr/day in the last 30 days	Mean = 5.38, SD = 6.24, Median= 2.9

Q114 On a usual day, how many unpaid hours did you spend on bathing, teaching, reading, playing, childcare, cleaning, laundry, and any other activities for members of your household, or as a volunteer activity for those outside your home?

hr/day in February 2020	Mean = 4.17, SD = 5.18, Median = 2.5
hr/day in the last 30 days	Mean = 5.31, SD = 6.16, Median= 2.9

Q115 Taking into consideration all your current work, family and social obligations, and comparing this to these same obligations during February 2020, would you say that over the past 30 days you have: *(Select one)*

A lot more time available to do things that interest me	25.59%
A little more time available to do things that interest me	16.16%
About the same amount of time available to do things that interest me	54.13%
A little less time available to do things that interest me	2.19%
A lot less time available to do things that interest me	1.93%

Q116 When it comes to how frequently you are cooking at home, compared to this same time last year, are you cooking at home: *(Select one)*

Much more	27.09%
Somewhat more	30.47%
No more or less	41.79%
Somewhat less	0.61%
Much less	0.04%

Q117 Please rate your cooking skill level from 0 (no skill at all) to 100 (expert).

	No skill at all	Expert
February 2020	Mean = 61.04, SD = 26.46, Median = 65	
Currently	Mean = 63.19, SD = 24.94, Median = 66	
Current - February 2020	Mean = 2.15, SD = 12.07, Median = 0	

% Reporting an improvement of 1 point or more = 48.68%
 % Reporting an improvement of 2 points or more = 34.41%

Q118 Please rate your food management skill level (e.g., meal planning, food shopping efficiency, proper storage, reduced food waste) from 0 (no skill at all) to 100 (expert).

	No skill at all	Expert
February 2020	Mean = 64.61, SD = 25.12, Median = 65	
Currently	Mean = 67.54, SD = 24.17, Median = 70	
Current - February 2020	Mean = 2.93, SD = 8.96, Median = 1	

% Reporting an improvement of 1 point or more = 52.06%
 % Reporting an improvement of 2 points or more = 29.44%

Q119 The last time you got groceries, did you think that there would be a shortage of any food items?

Yes	22.13%
No	77.87%

Q119a If Yes, select all the categories you perceived might have a shortage: (n=140)

Meat	72.20%
Dairy	39.43%
Baking items	37.43%
Pasta	19.69%
Fresh produce	32.24%
Canned items	21.43%
Frozen items	42.42%
Alcohol	6.31%
Other	9.62%

Q120 Has anyone in the following groups tested positive for virus that causes COVID-19?
Select all that apply.

People living in my home (including you)	4.62%
Close family, friends and colleagues (who live outside your home)	7.77%
Other people I know personally	11.19%
Other people I don't know personally but are important to me	4.97%
None of the above	76.06%

Q121 Do you consider you or someone who lives with you to be at an increased risk of suffering severe illness if they were to get coronavirus (COVID-19)?

Yes	32.07%
No	53.91%
Not sure	14.02%

Q122 In the past 7 days, when preventative measures could be taken, how often have you undertaken the following measures:

	Never	Occasionally	Often	Frequently	Always
Handwashing	2.96%	2.37%	14.94%	27.74%	51.99%
Mask wearing	4.07%	10.73%	12.36%	23.48%	49.37%
Social distancing	1.50%	3.16%	13.62%	26.54%	55.17%
Glove wearing	39.66%	20.13%	12.09%	13.83%	14.30%
Disinfecting surfaces	3.91%	17.66%	22.97%	23.58%	31.88%

Q123 In your judgement, and given the current state of the coronavirus situation in your community, how likely would it be for someone who never had coronavirus to contract it from undertaking the following activities?

	Very Likely	Somewhat Likely	Neutral	Somewhat Unlikely	Very Unlikely
For 60 minutes sit in a crowded restaurant where patrons and staff do not wear masks.	31.23%	20.12%	20.18%	10.02%	18.45%
For 30 minutes shop in a medium sized grocery store where all patrons and staff wear masks.	12.34%	22.21%	25.96%	26.63%	12.87%
For 15 minutes in line to pick up food from a restaurant where you momentarily get within 6 feet of unmasked people every 5 minutes.	12.78%	28.93%	33.42%	11.80%	13.07%

Q124 In your judgement, and given the current state of the coronavirus situation in your community, how likely is it that you would personally undertake the following activities?

	Very Likely	Somewhat Likely	Neutral	Somewhat Unlikely	Very Unlikely
For 60 minutes sit in a crowded restaurant where patrons and staff do not wear masks.	13.20%	6.78%	14.99%	12.26%	52.79%
For 30 minutes shop in a medium sized grocery store where all patrons and staff wear masks.	26.95%	31.32%	20.60%	6.01%	15.12%
For 15 minutes in line to pick up food from a restaurant where you momentarily get within 6 feet of unmasked people every 5 minutes.	13.66%	19.20%	24.19%	18.92%	24.03%

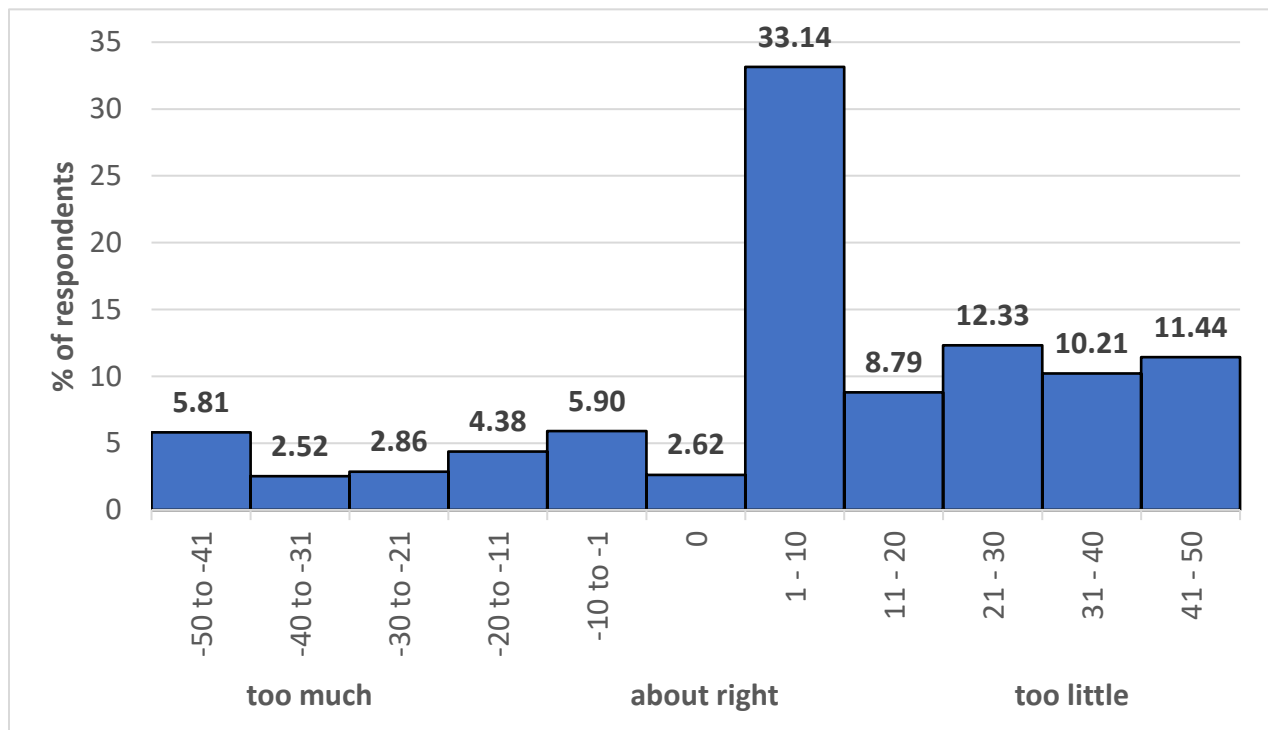
Q125 In your community are the following activities ...?

	Fully open/ available	Somewhat open/ available	Open/ available with limited capacity	Closed/ unavailable	Not sure
Indoor restaurant dining	16.39%	24.16%	34.34%	17.85%	7.27%
Outdoor/patio restaurant dining	21.90%	29.34%	37.22%	3.86%	7.68%
Outdoor recreation	17.11%	32.39%	30.88%	6.54%	13.08%
Personal care (hair salons, barbers)	14.67%	29.87%	38.67%	8.50%	8.29%
Factories and offices	15.55%	27.18%	35.81%	5.06%	16.40%
Childcare facilities	10.17%	17.50%	30.50%	9.66%	32.16%
Retail outlets	15.72%	34.74%	36.06%	5.10%	8.38%
Entertainment venues (movie theaters, concert halls)	6.00%	10.49%	24.71%	44.74%	14.06%

Q126 In your opinion, are the restrictions placed on economic activity in your community due to COVID-19:

Too much (-50 to -1) About right (0) Too little (1 - 50)
 21.37% 2.61% 76.02%

Mean = 9.12, SD = 24.73, Median = 5



Demographics Module

Q127 Are you...? Select one.

Male	39.70%
Female	60.26%
Prefer not to answer	0.05%

Q128 Are you Hispanic or Latino? Select one.

Yes	5.01%
No	94.75%
Prefer not to answer	0.24%

Q129 What is your race? Select all that apply.

White	78.09%
Black or African American	8.65%
Asian	4.47%
Native Hawaiian or other Pacific Islander	0.06%
American Indian or Alaska Native	1.12%
Two or more of the above	7.61%
Some other race	0.47%
Prefer not to answer	0.42%

Q130 What is the highest grade or level of school you have completed? Select one.

Less than 12th grade, NO DIPLOMA	0.78%
High school graduate, DIPLOMA or GED	9.50%
Some college or Associate degree	26.60%
Bachelor's degree	34.86%
Graduate or professional degree	28.25%

Q131 Which of the following categories best describes your annual household income before taxes during 2019? *Select one.*

Less than \$10,000	3.12%
\$10,000 - \$19,999	3.16%
\$20,000 - \$29,999	8.92%
\$30,000 - \$39,999	8.07%
\$40,000 - \$49,999	11.91%
\$50,000 - \$59,999	5.28%
\$60,000 - \$69,999	5.64%
\$70,000 - \$79,999	6.65%
\$80,000 - \$89,999	4.28%
\$90,000 - \$99,999	10.05%
\$100,000 - \$124,999	11.95%
\$125,000 - \$149,999	8.41%
\$150,000 and above	12.56%

Q134 How would you describe your political affiliation? (n=480)

Democrat	37.44%
Republican	28.05%
Independent/unaffiliated	34.51%

Region of Residence

Midwest	25.70%
Northeast	25.12%
South	29.90%
West	19.28%

Weights

Weights were constructed after sample collection was completed to help improve the representativeness of the data along four demographic characteristics: self-identified racial affiliation, income, household size and age. Each characteristic was divided into 3 bins, except household size, which was divided into two bins (see table below). The use of weights improves representativeness, but due to the high dimensionality (4 characteristics) it does not perfectly replicate national census averages for each of the 4 characteristics, with the largest remaining deviation being an underrepresentation of respondents identifying as Black or African American.

<u>Race</u>	<u>Census</u>	<u>Unweighted Sample</u>	<u>Weighted Sample</u>
White	76.3%	81.8%	77.8%
Black	13.4%	2.5%	8.7%
All other affiliations	10.3%	15.6	13.5%
<u>Household income</u>			
<\$50,000	39.9%	18.9%	35.5%
\$50,000 - \$99,999	29.7%	39.2%	31.8%
\$100,000 or more	30.4%	41.9%	32.7%
<u>Household size</u>			
<3	63%	27.6%	65.1%
3 or more	37%	72.4%	34.9%
<u>Age</u>			
<35	29.9%	9.5%	26.1%
35 - 54	32.4%	43.2%	33.1%
55 or more	37.6%	47.3%	40.8%