Volume 2, Issue 10: October 2023

CONSUMER FOOD INSIGHTS

Center for Food Demand Analysis and Sustainability
College of Agriculture, Purdue University
Joseph Balagtas and Elijah Bryant

TABLE OF CONTENTS

INTRODUCTION

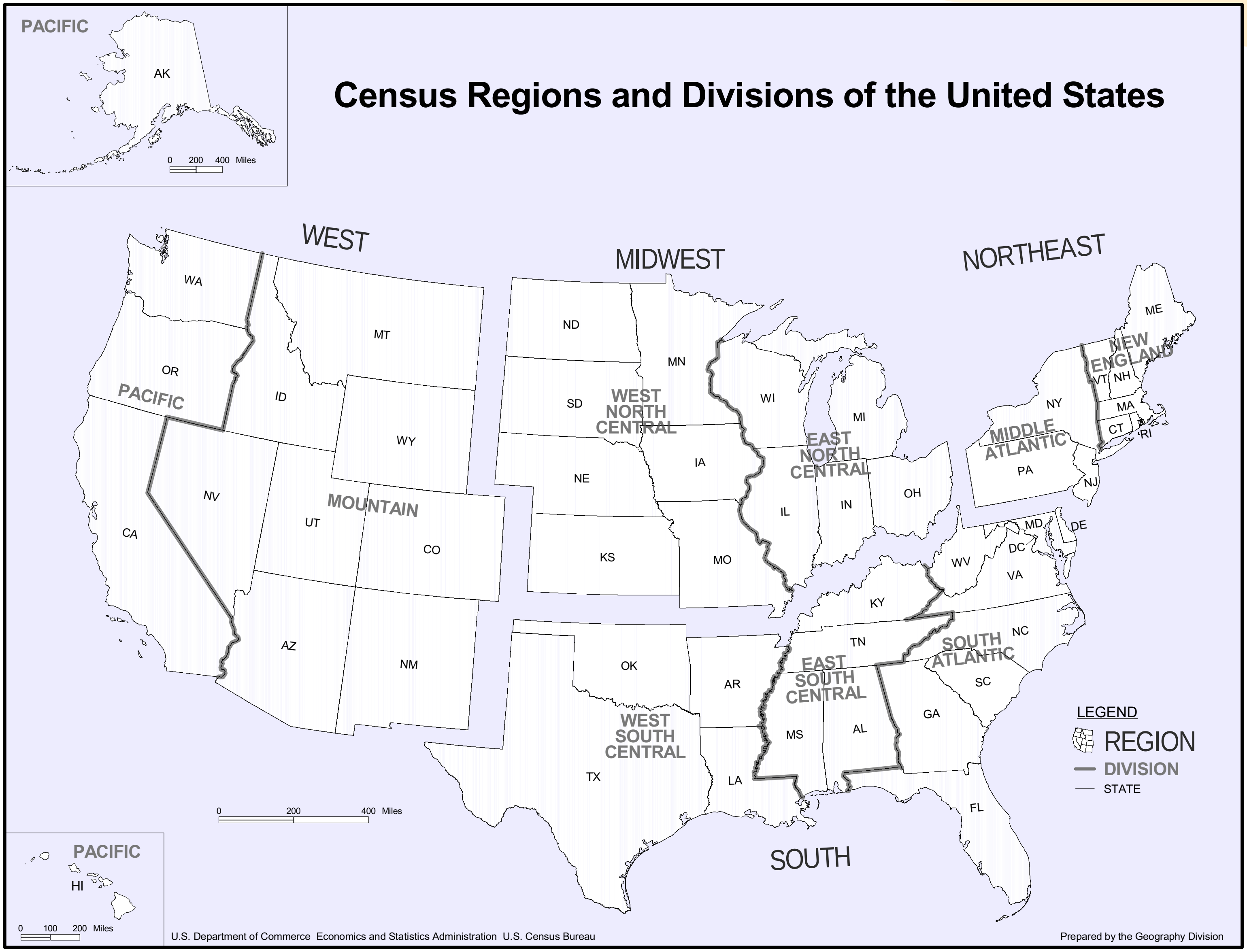
Consumer Food Insights (CFI) is a monthly survey of more than 1,200 Americans from across the country. Since January 2022, the Center for Food Demand Analysis and Sustainability (CFDAS) at Purdue University has used this survey to track trends and changes in consumer food demand and food sustainability behaviors.[1] Visit purdue.ag/CFDAS or contact cfdas@purdue.edu for more details.

In this issue, we analyze the CFI results according to U.S. Census Bureau geographical regions: (1) Northeast, (2) Midwest, (3) South and (4) West. We compare responses between these groups over the last 22 months of data collection (January 2022 - October 2023) to assess whether households in different regions have changed their food behaviors over time.[2] Other questions included in this month's survey asked respondents if they plan on celebrating Thanksgiving with a meal this year and what expectations they have for their Thanksgiving meal.

KEY INSIGHTS FROM OCTOBER

- The Sustainable Food Purchasing (SFP) Index rose to 72 this month from 68 in September.
- 79% of consumers plan on celebrating Thanksgiving with a meal.
- Many consumers attending or hosting Thanksgiving believe turkey and travel prices will be higher this year compared to last year.
- The proportion of attendees planning on helping the host with the Thanksgiving meal expenses or food is larger than the proportion of hosts planning on asking for help.
- More consumers in the South plan on having macaroni and cheese, ham and cornbread on the table compared to other regions.
- Food insecurity improved in the West and Northeast regions while it remained the same in the South and Midwest from 2022 to 2023.

SFP INDEX	FOOD INSECURITY	FOOD SPENDING	GROCERY STOCKOUTS
72/100	13%	$186/WEEK	11%


Census Regions and Divisions of the United States
PACIFIC
AK
0 200 400 Miles
WEST
MIDWEST
NORTHEAST
SOUTH
PACIFIC
MOUNTAIN
WEST NORTH CENTRAL
EAST NORTH CENTRAL
MIDDLE ATLANTIC
NEW ENGLAND
SOUTH ATLANTIC
EAST SOUTH CENTRAL
WEST SOUTH CENTRAL
WA
OR
CA
NV
ID
MT
WY
UT
CO
AZ
NM
ND
SD
NE
KS
MN
IA
MO
WI
IL
MI
IN
OH
NY
PA
NJ
VT
NH
ME
MA
CT
RI
MD
DE
DC
WV
VA
KY
TN
NC
SC
GA
FL
AL
MS
AR
LA
OK
TX
PACIFIC
HI
0 100 200 Miles
0 200 400 Miles
LEGEND
REGION
DIVISION
STATE
U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau
Prepared by the Geography Division

THANKSGIVING

What are consumer expectations and plans for Thanksgiving?

This month we asked consumers questions about their Thanksgiving meal plans and expectations this year.[3] The majority of American consumers plan on celebrating Thanksgiving with a meal (**Figure 1**). Most consumers plan on either hosting (37%) or attending (43%) a Thanksgiving meal, while a small portion plan on eating out (5%) (**Figure 2**).

Figure 3 shows consumer expectations for hosting Thanksgiving this year. Most consumers across all regions expect turkey prices to be higher and plan on budgeting more for this year's meal compared to last year. While there are some slight regional differences in the proportion of consumers who plan on asking guests to bring part of the meal, the majority of consumers across all regions will not ask guests to share the expense of the meal. **Figure 4** shows attendee expectations for Thanksgiving. Most attendees expect travel to be more costly this year and fewer people are planning on traveling further this Thankgiving. Interestingly, a larger proportion of attendees are willing to bring part of the meal and share in the expense of the meal relative to the proportion of hosts willing to ask attendees for help. This is supported by previous psychology research on the disconnect between willingness to ask for help and willingness to help others.[4]

Figure 1. Celebrating with a Thanksgiving Meal (%), Oct. 2023

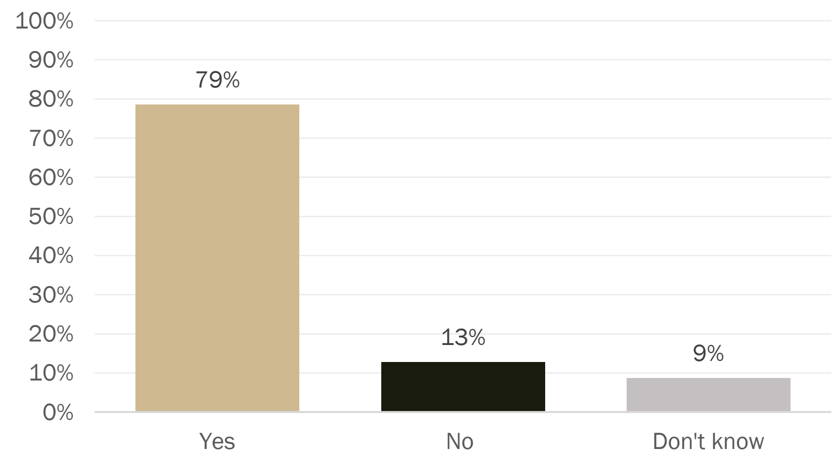
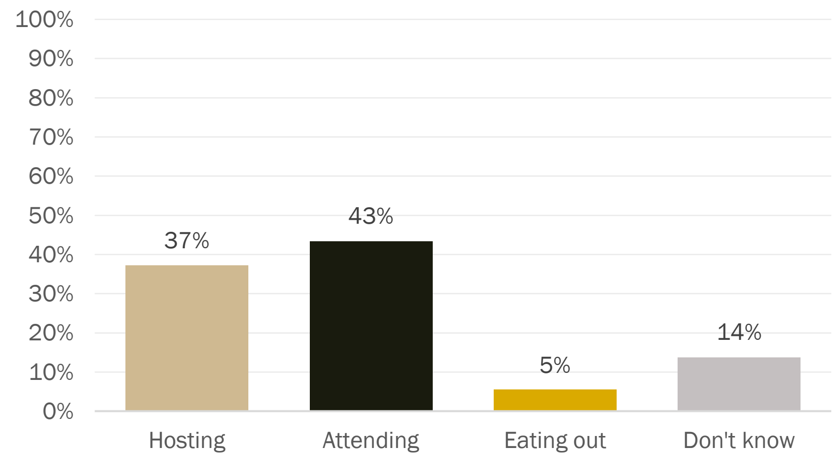
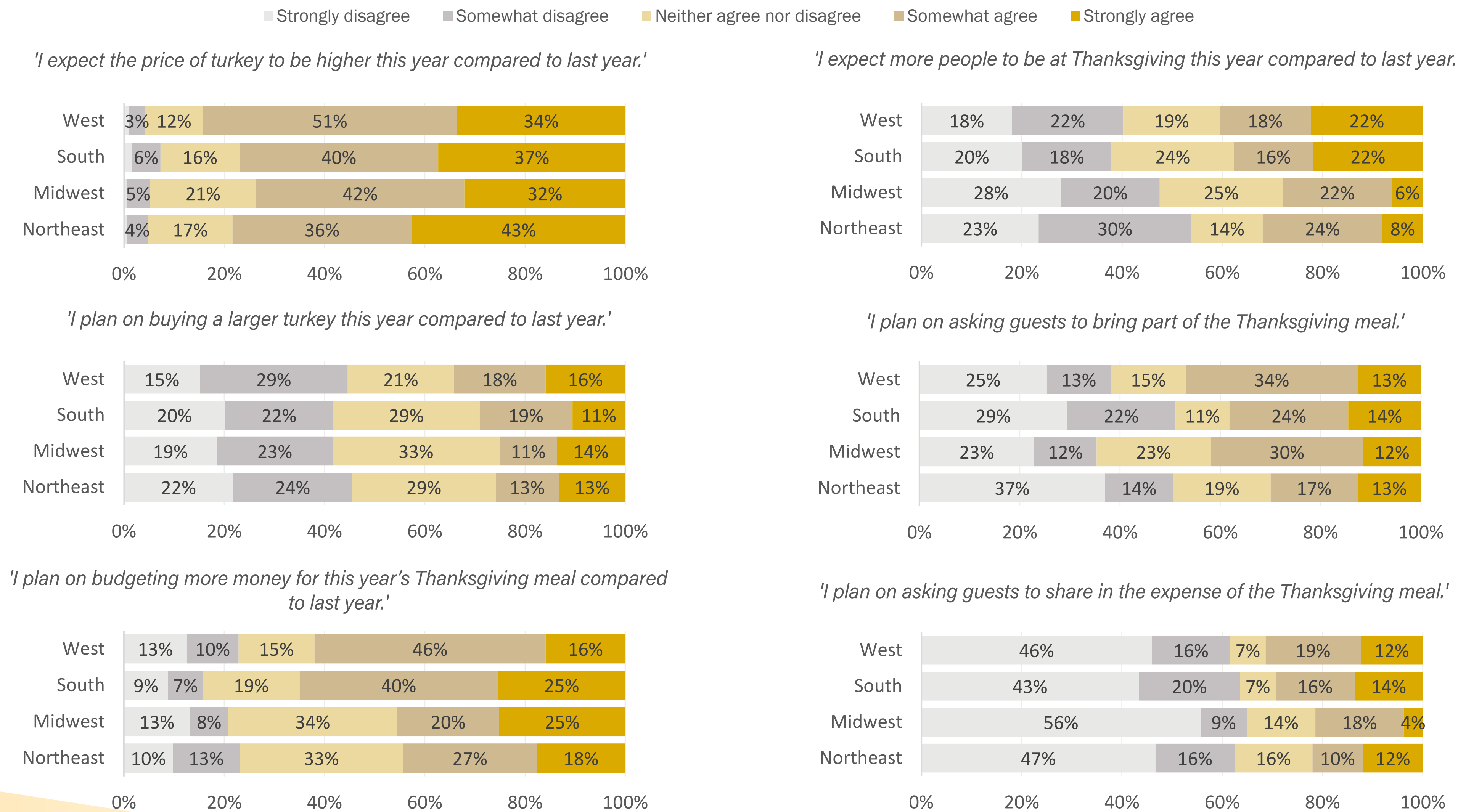


Figure 2. Thanksgiving Meal Plan (%), Oct. 2023



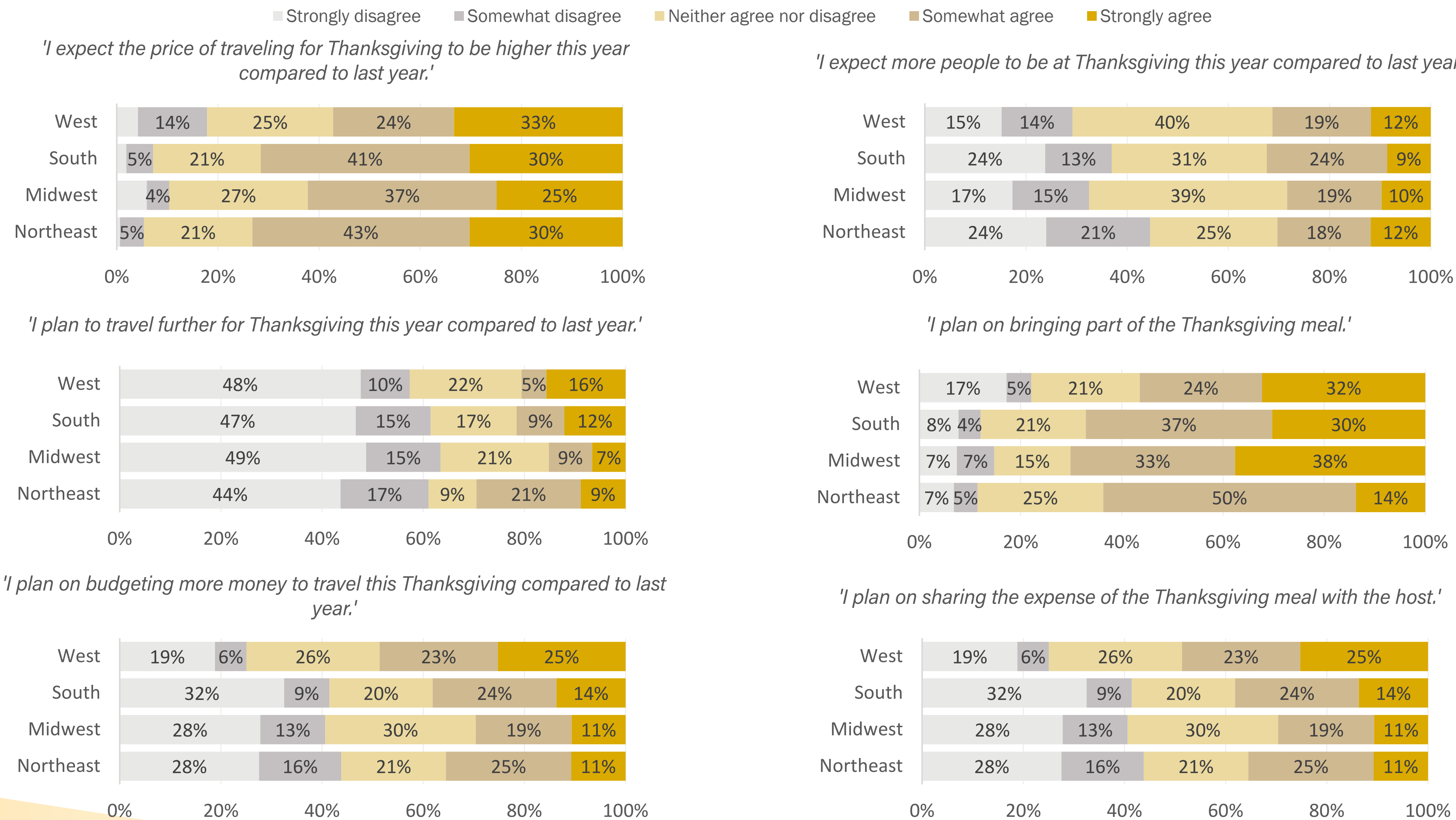
THANKSGIVING

Figure 3. Consumers' Plans/Expectations for Hosting Thanksgiving, Oct. 2023



THANKSGIVING

Figure 4. Consumers' Plans/Expectations for Attending Thanksgiving, Oct. 2023

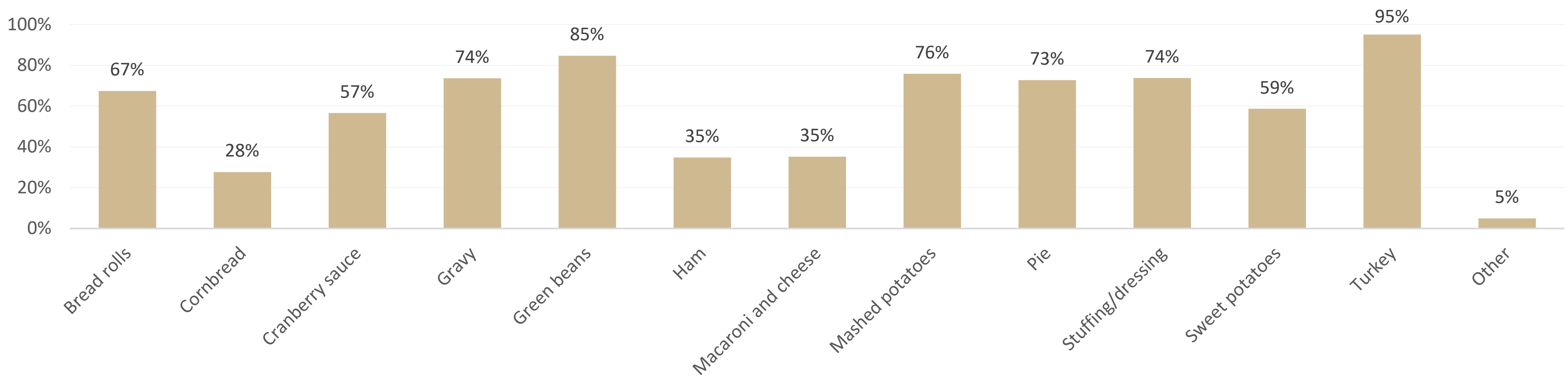


THANKSGIVING

What do Americans plan to eat this Thanksgiving?

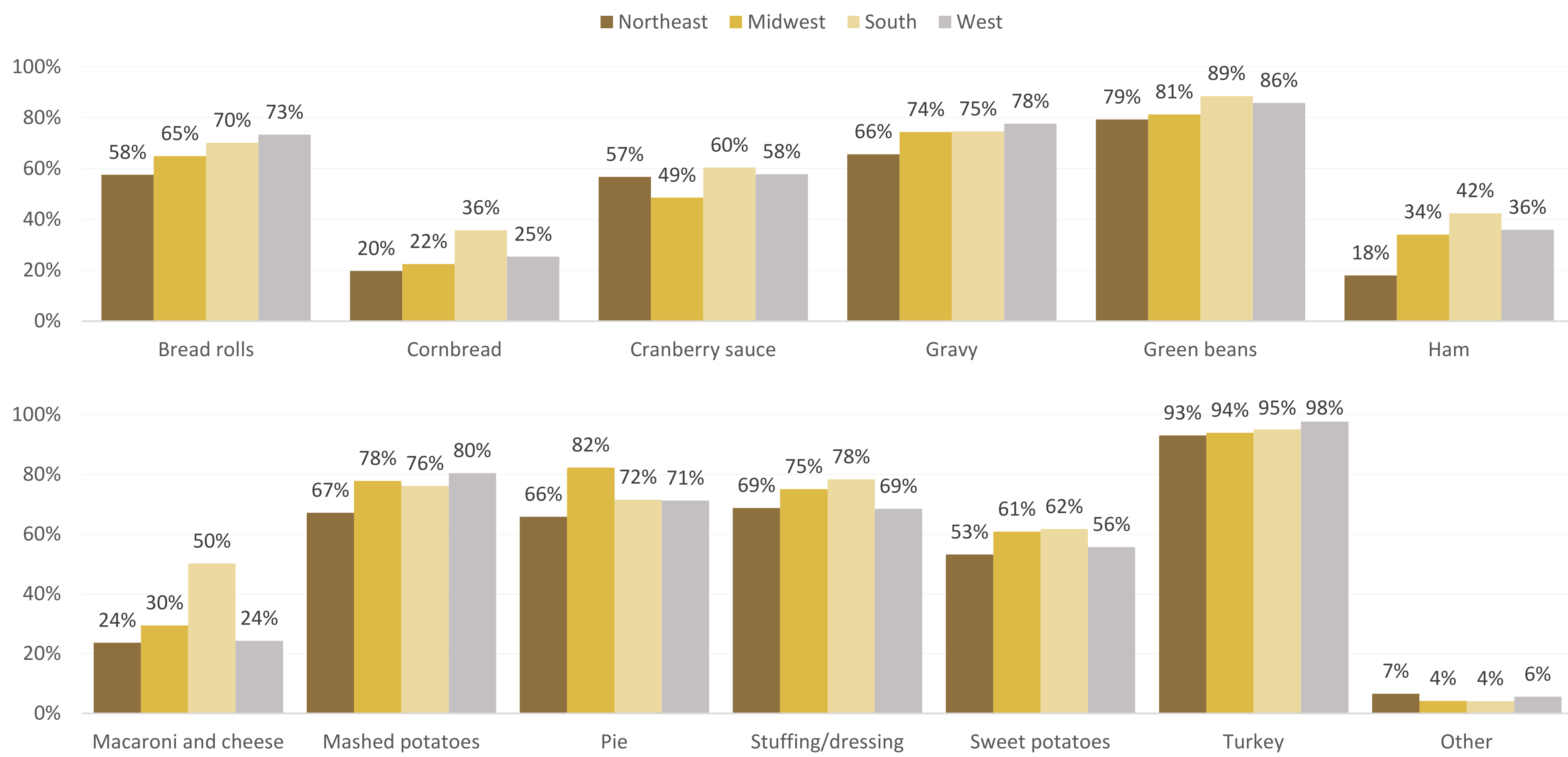
Consumers were asked to select meal items they expect will be a part of their upcoming Thanksgiving meal (**Figure 5**). The meal items presented to respondents were based on trending Google Thanksgiving food searches from November of 2022. The vast majority of consumers (95%) expect turkey to be on the table for Thanksgiving. Other Thanksgiving staples, such as green beans, mashed potatoes, gravy, stuffing/dressing, bread rolls and pie, are expected to be a part of a majority of consumers' meals. Corn was a common write-in food item when 'Other' was selected. Regionally, we see some statistically significant differences in the proportion of responses that included certain food items (**Figure 6**). For instance, more consumers from the South expect cornbread, ham and macaroni and cheese to be a part of their upcoming Thanksgiving meal compared to the other regions (Northeast, Midwest, South) where the proportion of respondents who anticipate these items will be a part of their meal is up to 26 percentage-points less.

Figure 5. Anticipated Thanksgiving Meal Items (% of responses where selection occurred), Oct. 2023



THANKSGIVING

Figure 6. Anticipated Thanksgiving Meal Items by U.S. Census Region (% of responses where selection occurred), Oct. 2023

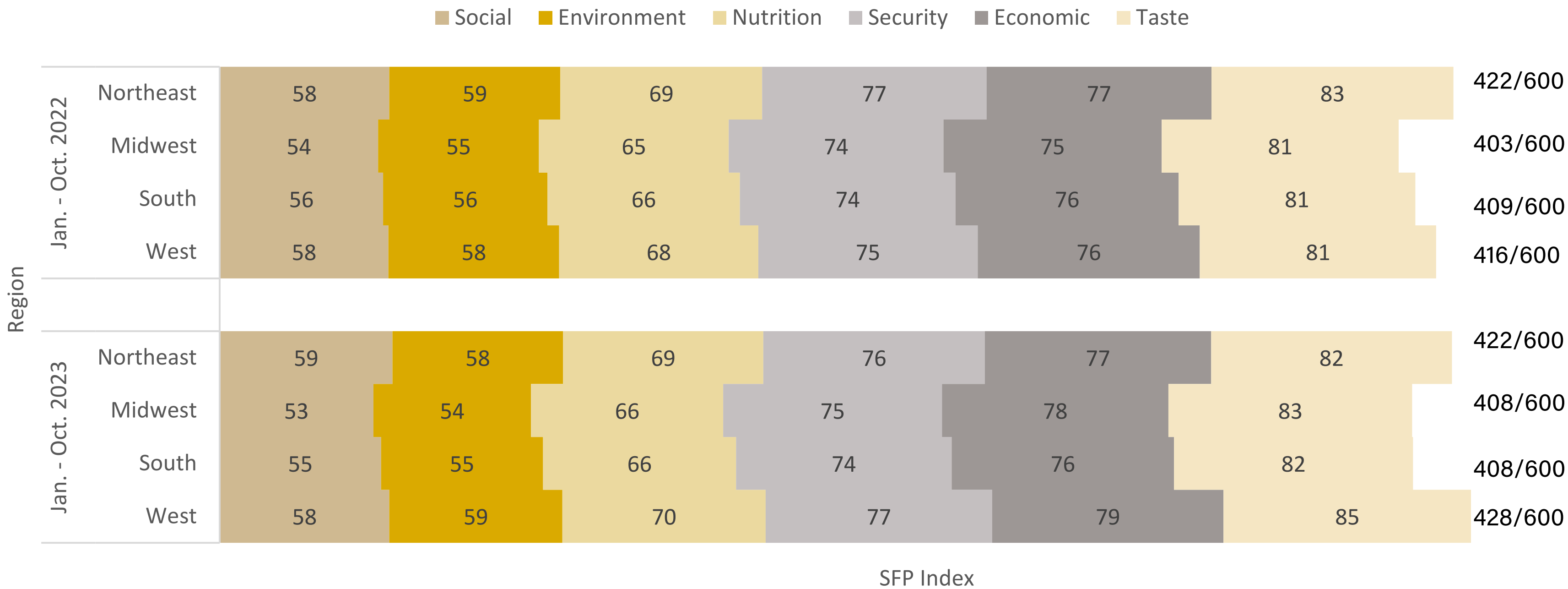


SUSTAINABLE DIETS

Are Americans making sustainable food purchasing decisions?

The Sustainable Food Purchasing (SFP) Index[5] has remained relatively stable over the past 22 months, but we do see some differences when disaggregating by region. The Northeast and West score similarly on the SFP index for most subcategories while the South and Midwest score similarly. The Northeast and West regions score higher on the index for the *social*, *environment* and *nutrition* subcategories than the South and Midwest regions. The South region scores the lowest in the *security* subcategory, which coincides with the food insecurity measure found on page 15 of the report. Overall, we see either no change or slight improvement in the overall SFP index scores for each region from 2022 to 2023, with the West region making the biggest improvement.

Figure 7. Sustainable Food Purchasing Index by U.S. Census Region, Jan. 2022 - Oct. 2023



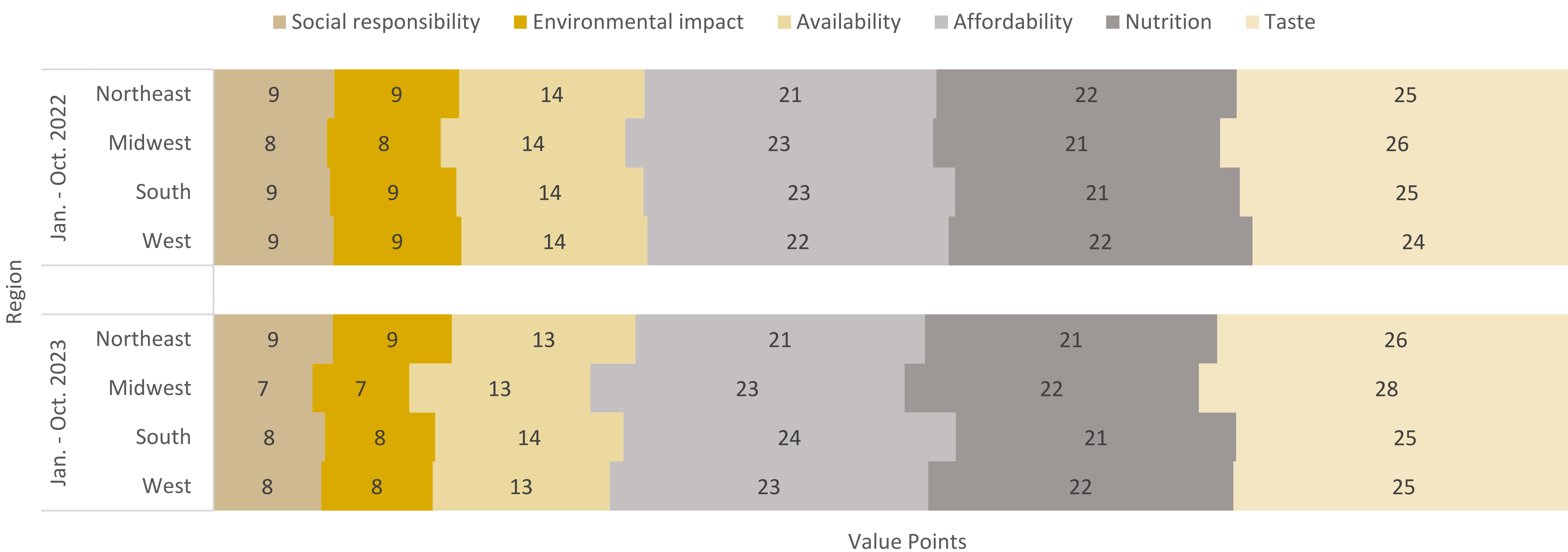
	Region	Social	Environment	Nutrition	Security	Economic	Taste	
Jan. - Oct. 2022	Northeast	58	59	69	77	77	83	422/600
	Midwest	54	55	65	74	75	81	403/600
	South	56	56	66	74	76	81	409/600
	West	58	58	68	75	76	81	416/600
Jan. - Oct. 2023	Northeast	59	58	69	76	77	82	422/600
	Midwest	53	54	66	75	78	83	408/600
	South	55	55	66	74	76	82	408/600
	West	58	59	70	77	79	85	428/600

FOOD VALUES

What attributes do Americans most value when purchasing food?

Every month, respondents are asked to allocate 100 points to six food attributes based on their importance when grocery shopping. These attributes closely reflect the components of the SFP Index. On a monthly basis, we have not observed significant changes in the distribution of points across attributes. Looking closer at how these values break down across geographic regions, their distributions are broadly similar (**Figure 8**). However, Midwest consumers value *taste* slightly more than those in other regions. Consistent with previous surveys, *taste*, *nutrition* and *affordability* are the highest valued food attributes among all consumers.

Figure 8. Share of 100 Points Allocated to Food Attributes by U.S. Census Region, Jan. 2022 - Oct. 2023



FOOD EXPENDITURES

How much are American households spending on their food?

Each month, consumers report their household's weekly spending on food from the last 30 days (**Figure 9**). On average, consumers are spending about $119/week on groceries (FAH) and $67/ week on restaurants and other carryout (FAFH).[6] Total weekly food spending is 4.8% higher than last October.

The consumer estimate of annual food inflation was 6.3%, the same as the September estimate (**Figure 10**). We continue to see a difference between consumers' estimates of food inflation and the government CPI measure of food inflation, which has continued to cool since Fall of 2022. This disparity suggests consumers continue to feel the weight of high food prices. Consumers are slightly more optimistic about future food inflation compared to last month, as they predict future food inflation will be around 4.1% over the next 12 months.

Figure 9. Weekly Household Food Expenditures, Jan. 2022 - Oct. 2023

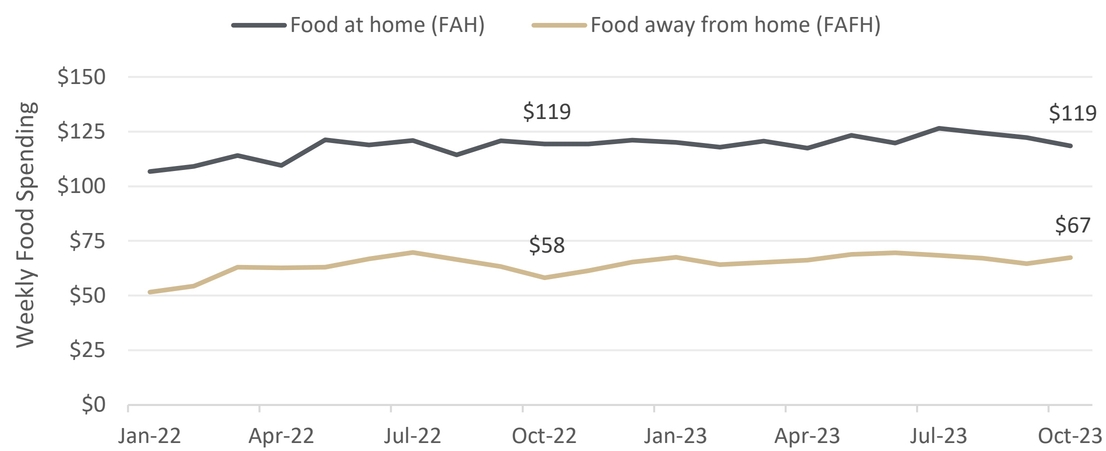
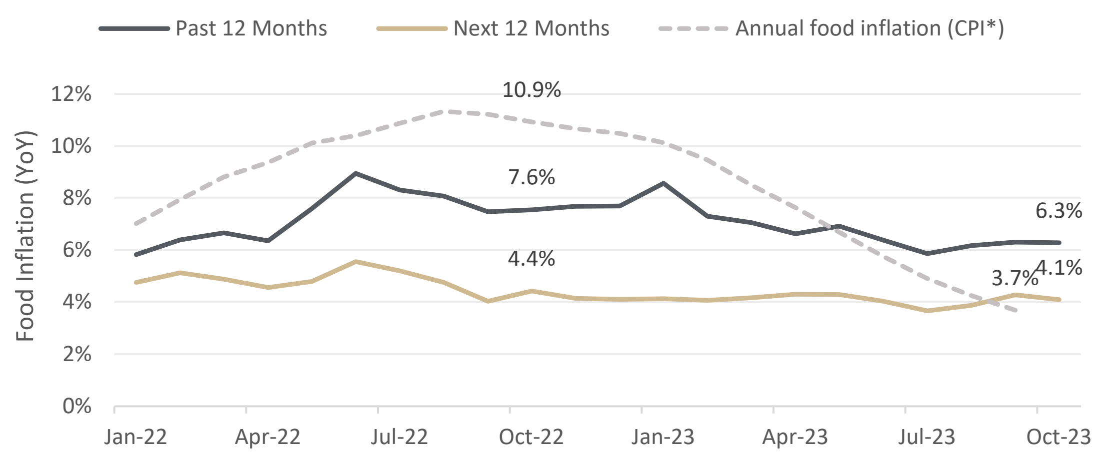


Figure 10. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Oct. 2023



*The Consumer Price Index (CPI) is a measure of inflation computed by the U.S. Bureau of Labor Statistics.

FOOD EXPENDITURES

How do consumers in different regions of the U.S. differ in their food spending?

Consumer food spending varies across regions, which is likely reflective of differences in cost of living. Average weekly food spending in 2023 has gone up for all regions compared to the same time period in 2022, though consumers in the Northeast, Midwest and South are spending over $10 more per week than in 2022. Consumers in the Midwest region spend the least on food ($177) while consumers in the Northeast spend the most ($201). As food prices remain high, households must either budget more to purchase their usual food items, cut back on the quantity of food purchased or substitute in more affordable alternatives.

Figure 11. Average Weekly Household Food Expenditures by U.S. Region, Jan. 2022 - Oct. 2022

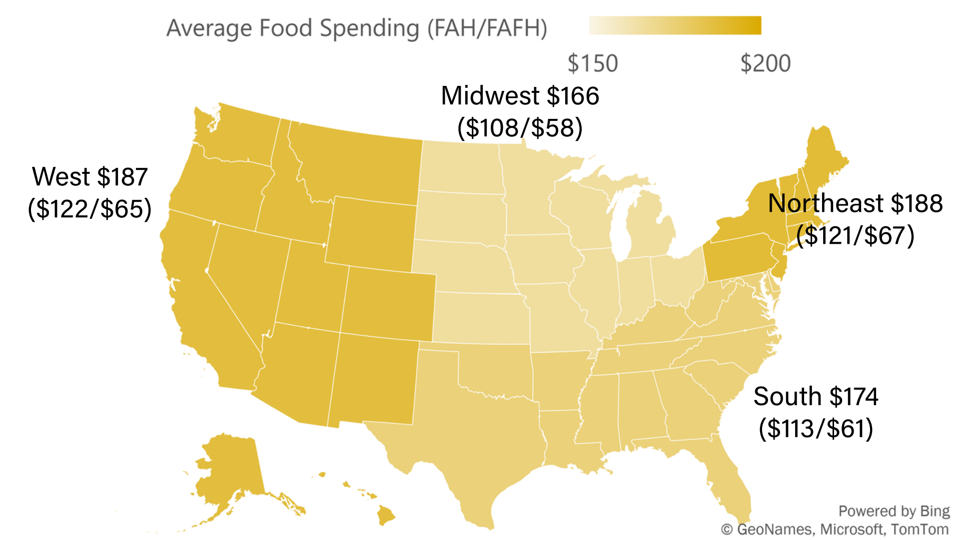
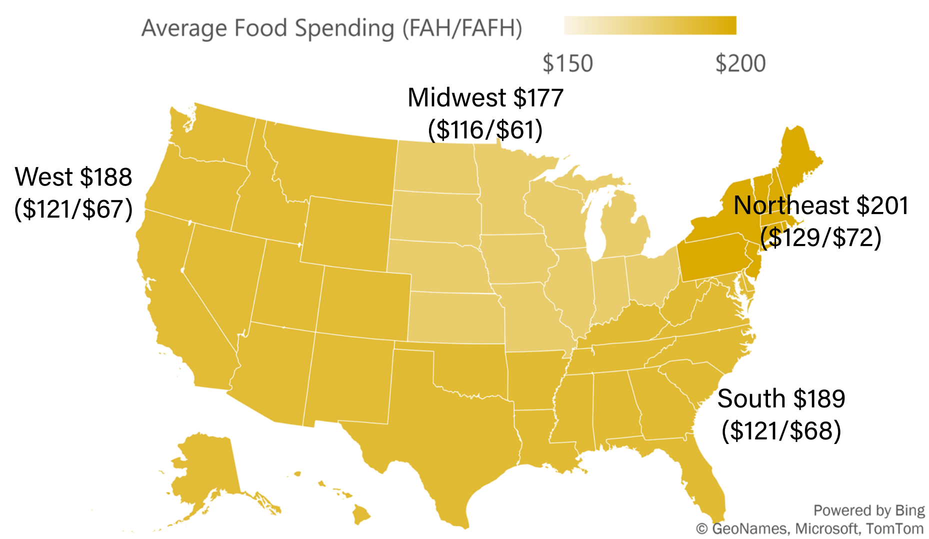


Figure 12. Average Weekly Household Food Expenditures by U.S. Region, Jan. 2023 - Oct. 2023



FOOD SECURITY

Which Americans are having trouble buying food for their families?

Based on a set of six standard questions[7] about food purchased and eaten in the past 30 days, we estimate national food insecurity to be about 13.3%. This rate remains below the 2022 average (15%) and is equivalent to last month's rate (**Figure 13**). The rate of households receiving free groceries dropped from 18% last month to 15% this month, which is four percentage-points below the 2022 average (19%) (**Figure 14**).

In **Figure 15** and **Figure 16,** we compare the 2023 regional food insecurity rates with the same time period in 2022. Food insecurity remained relatively the same for all regions. However, we see some improvement in the Northeast and West regions which both saw their food insecurity rates improve by two percentage-points. There is an eight percentage-point gap between the region with the highest food insecurity rate (South, 18%) and the region with the lowest insecurity rate (West, 10%).

Figure 13. Rate of Household Food Insecurity in the Last 30 Days, Jan. 2022 - Oct. 2023

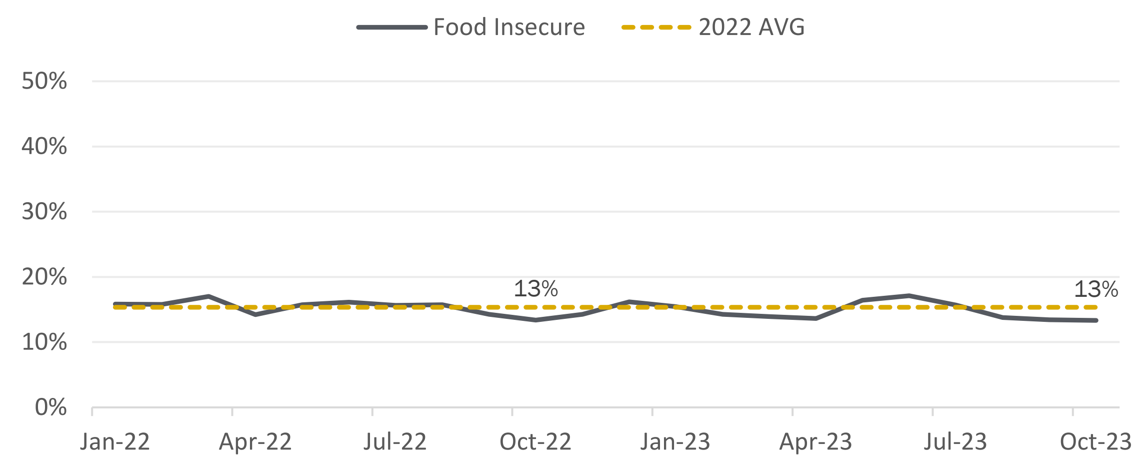
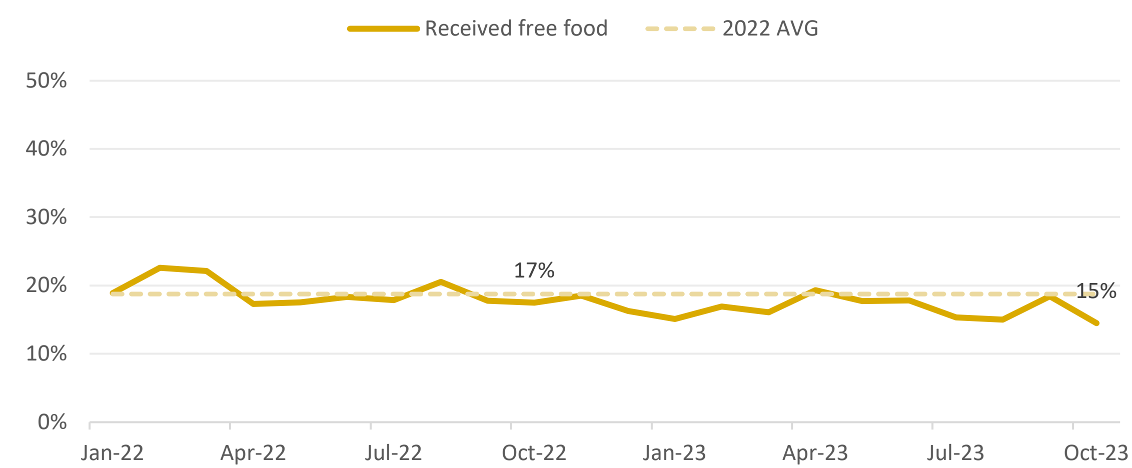


Figure 14. Households Receiving Groceries from a Food Bank, Church or Pantry in the Last 30 Days, Jan. 2022 - Oct. 2023



PURDUE UNIVERSITY College of Agriculture

FOOD SECURITY

Figure 15. Food insecurity Rate by U.S. Region, Jan. 2022 - Oct. 2022

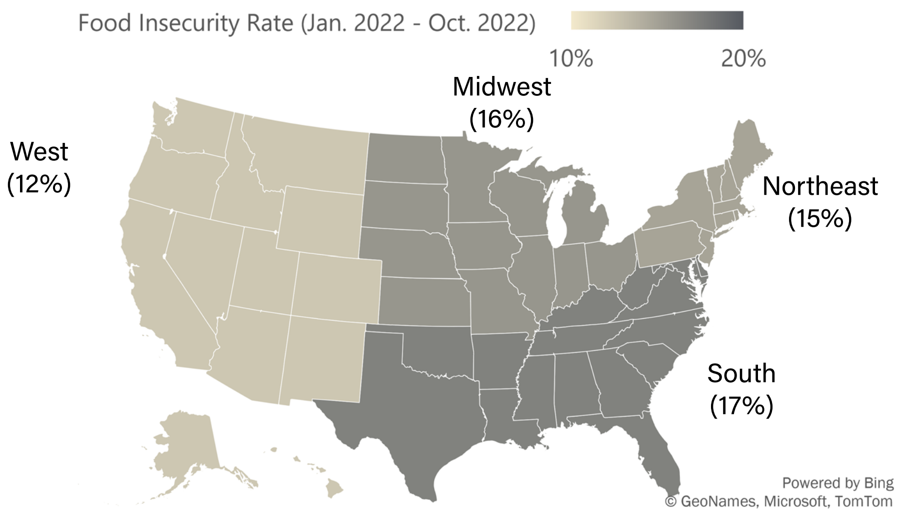
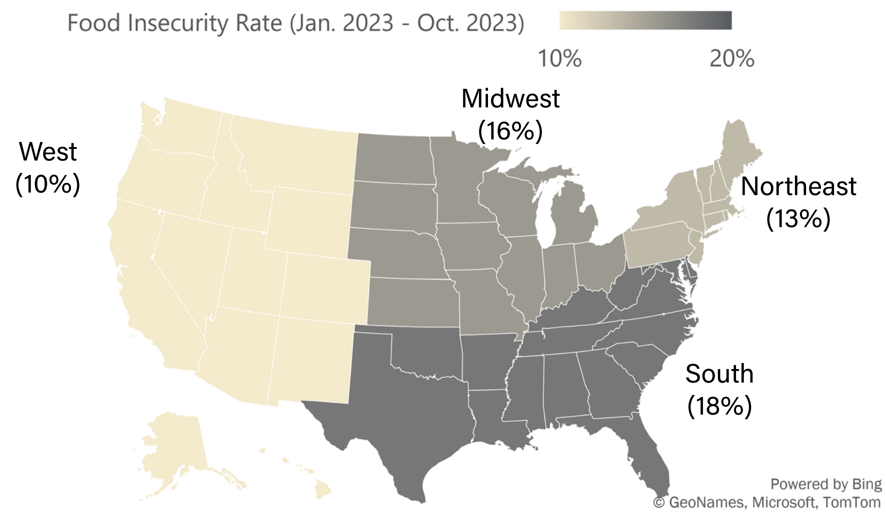


Figure 16. Food insecurity Rate by U.S. Region, Jan. 2023 - Oct. 2023

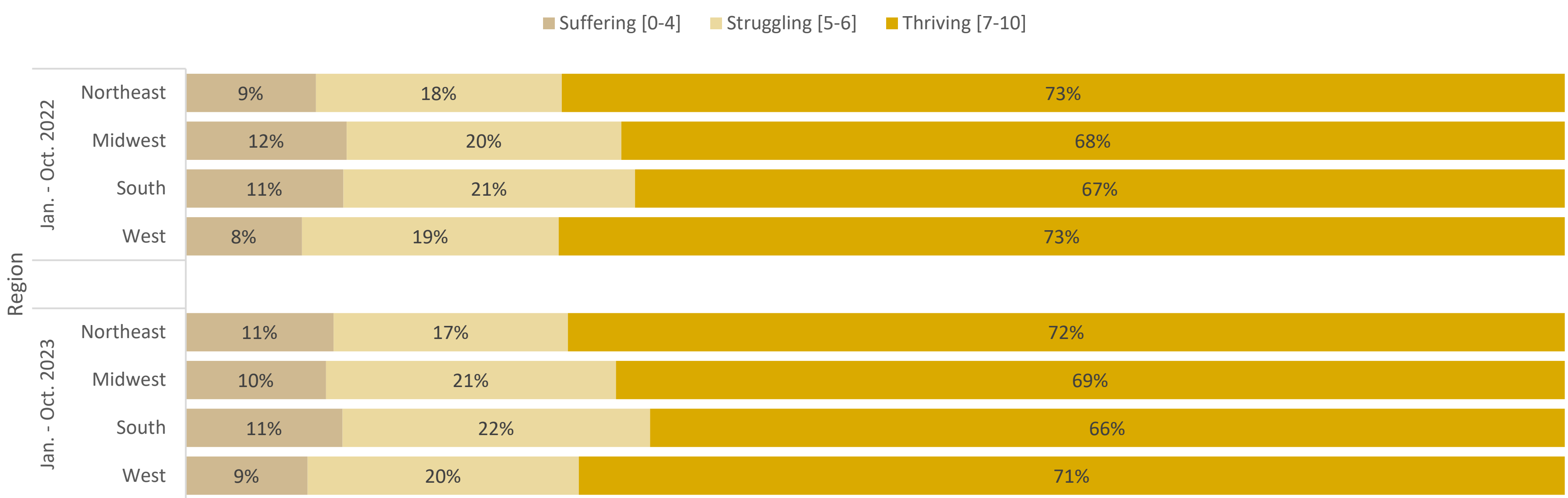


FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents score their own diet on a 0-10 scale, with the top of that scale (10) representing their ideal diet.[8] Scores are categorized as thriving (7-10), struggling (5-6) or suffering (0-4). A majority of Americans (68%) continue to report thriving on this Diet Well-Being Index. Consumers in the Northeast and West rate their diets slightly higher on the Diet Well-Being Index compared to those in the Midwest and South regions. We see little difference in the responses between 2022 and 2023. Notably, diet well-being does appear to correlate with food security across geographic regions, as seen on page 15. The gap between the regions closes when measuring diet and life happiness in **Figure 15** and **Figure 16**, respectively. The majority of consumers from each region continue to have their food needs met by the U.S. food system. Food happiness (87%) and life happiness (88%) remain high for all consumers.

Figure 14. Diet Well-Being Index (0-10 Scale) by U.S. Census Region, Jan. 2022 - Oct. 2023



FOOD SATISFACTION

Figure 15. Rate of Consumer <u>Diet</u> Happiness by U.S. Census Region, Jan. 2022 - Oct. 2023

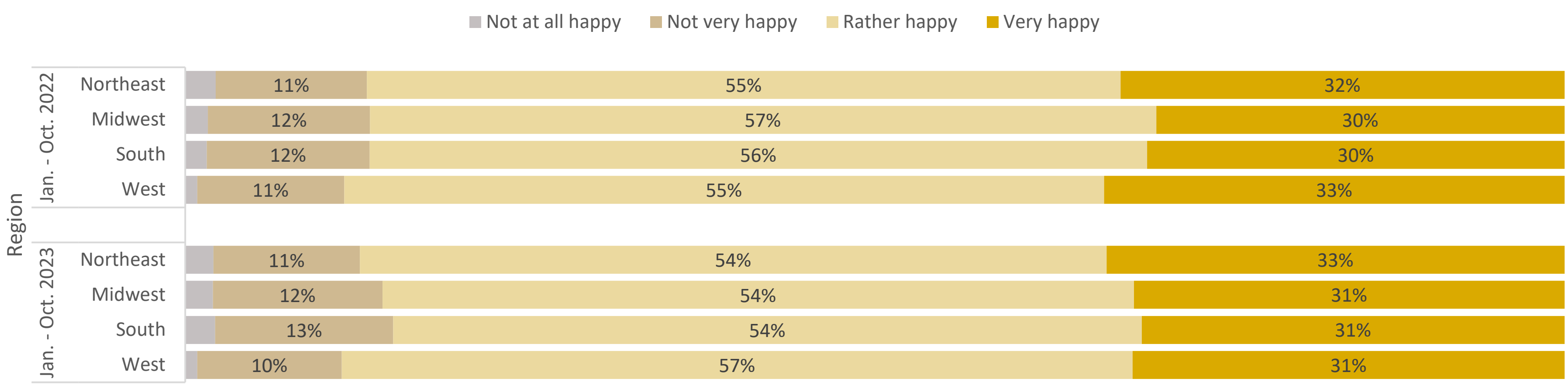
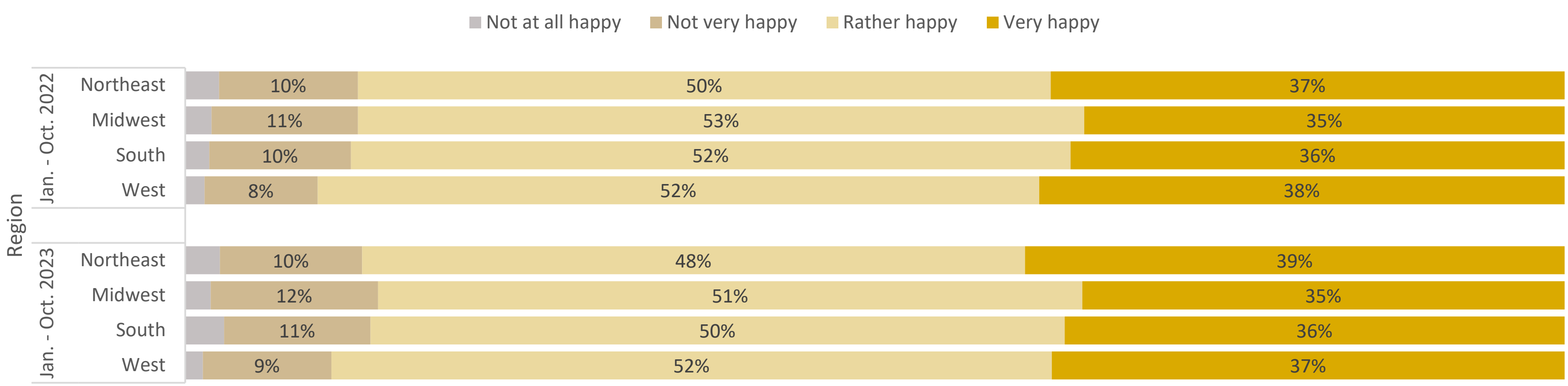


Figure 16. Rate of Consumer <u>Life</u> Happiness by U.S. Census Region, Jan. 2022 - Oct. 2023



CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Figure 17 reveals interesting regional differences in the proportion of consumers who subscribe to vegetarianism or veganism. The Northeast region reported the highest proportion of consumers who subscribe to one of these diets (12%) while the South reported the lowest proportion (8%).

Figure 18 summarizes how often households eat home-cooked meals on a weekly basis by region. A majority of households in all regions eat four or more home-cooked meals per week, with those in the Midwest cooking at home more often than others. We observe the largest difference between the Midwest and South regions. Households in the South tend to eat home-cooked meals less frequently.

Finally, we present consumers with common shopping and eating habits to see how frequently the statement applied to them in the last 30 days (**Figure 18**). We see some regional differences when analyzing the whole sample. Habits commonly viewed as "ethical" (e.g., choosing plant-based proteins or wild-caught fish) are more common among consumers in the Northeast and West than in the Midwest. However, consumers from all regions often practice habits that align with good food safety practices, such as checking date labels and avoiding eating rare meat or raw dough.

Figure 17. Rate of Vegetarianism/Veganism by U.S. Census Region, Jan. 2022 - Oct. 2023

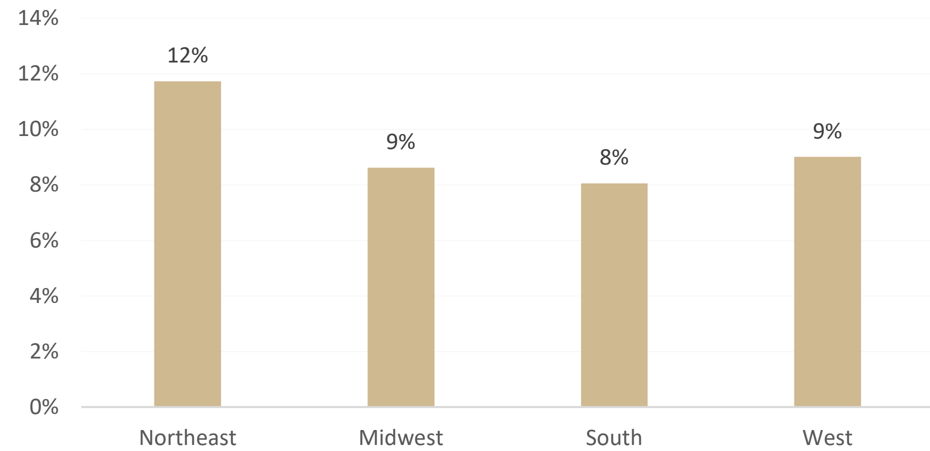
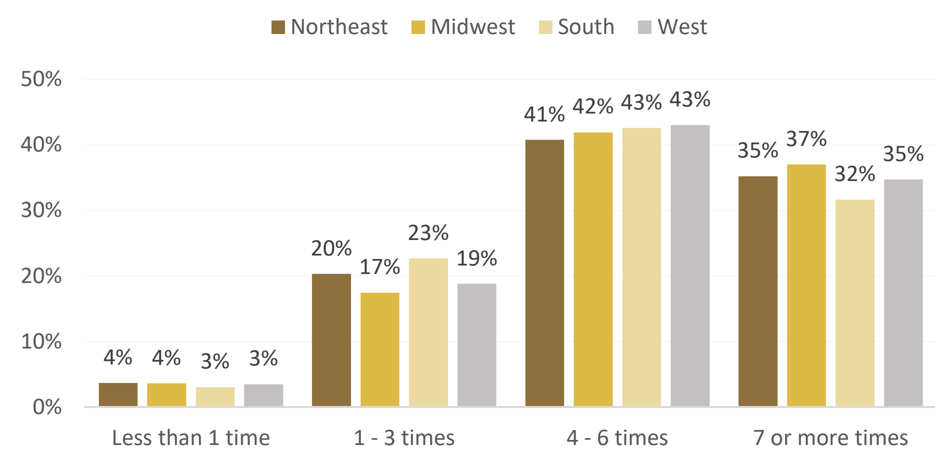


Figure 18. Frequency of Home-cooked Meals Eaten Per Week by U.S. Census Region, Jan. 2022 - Oct. 2023



CONSUMER BEHAVIORS

Figure 18. Frequency of Consumer Shopping and Eating Habits by U.S. Census Region, Jan. 2022 - Oct. 2023

	Northeast	Midwest	South	West
Chose generic foods over brand-name foods	3.2	3.3	3.3	3.3
Chose local foods over non-local foods	3.2	3.0	3.1	3.1
Chose wild-caught fish over farm-raised fish	3.0	2.8	2.9	3.0
Chose grass-fed beef over conventional beef	3.0	2.8	2.8	2.9
Chose cage-free eggs over conventional eggs	2.9	2.6	2.7	3.0
Chose organic foods over non-organic foods	2.8	2.6	2.7	2.8
Chose plant-based proteins over animal proteins	2.6	2.3	2.4	2.5
Checked the use-by/sell-by date at the store	4.1	3.9	4.0	4.1
Checked the nutrition label before buying new foods	3.5	3.3	3.4	3.5
Checked for natural or clean labels	3.1	2.8	3.0	3.0
Checked where my food originated	3.0	2.7	2.9	2.9
Checked for food recalls	3.0	2.7	2.9	2.8
Checked for GMO ingredients	2.9	2.6	2.8	2.8
Checked how my food was produced	2.9	2.6	2.8	2.8
Took steps to reduce food waste at home	3.8	3.7	3.7	3.8
Recycled food packaging	3.8	3.5	3.3	3.7
Threw away food past the use-by date	3.3	3.1	3.3	3.2
Composted food scraps	2.4	2.3	2.3	2.6
Ate fruits and vegetables without washing them	2.3	2.3	2.3	2.3
Ate rare or undercooked meat	2.0	1.9	1.9	1.9
Ate raw dough or batter	2.0	1.9	2.0	1.9

Jan. 2022 - Oct. 2023

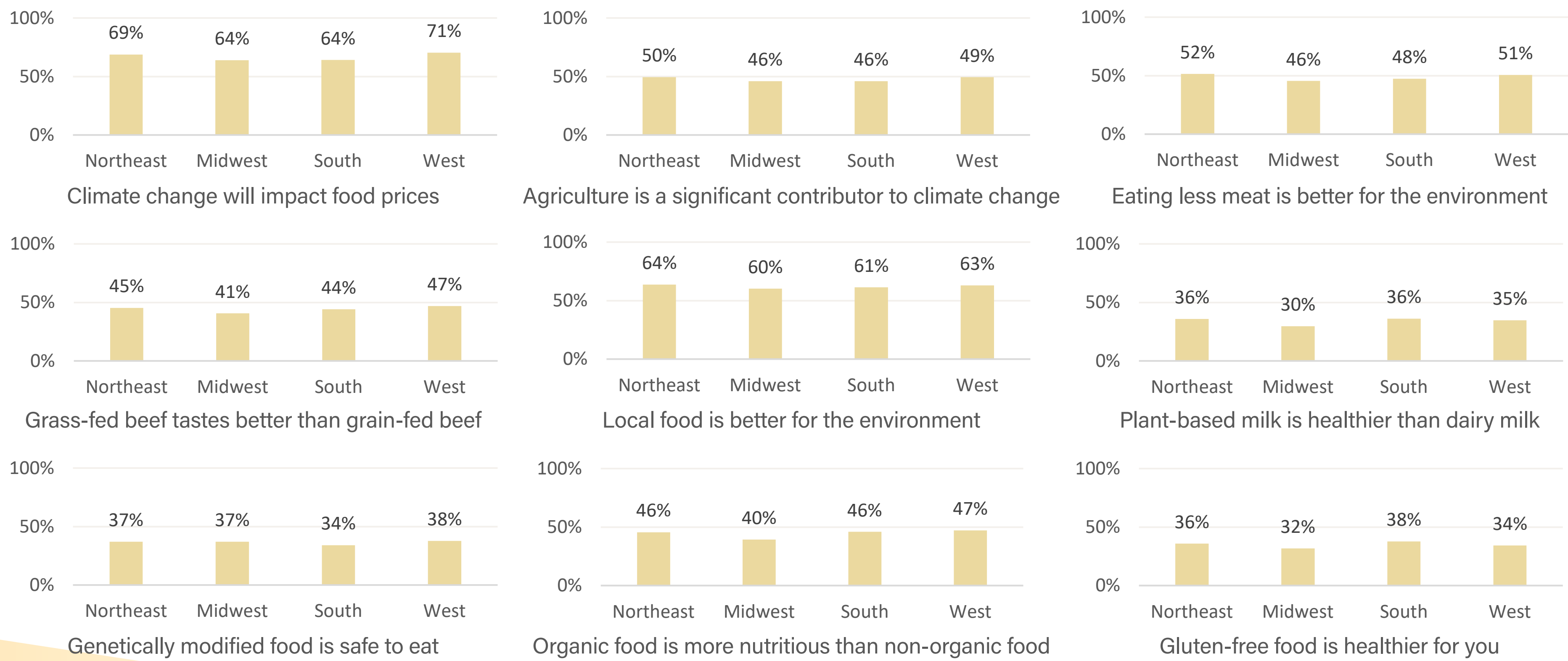
Mean Score	
5	Always
4	Often
3	Sometimes
2	Rarely
1	Never

CONSUMER BELIEFS

What do Americans believe about their food and food system?

Figure 19 shows that most consumers across all regions agree that climate change will impact food prices, though a larger proportion of those in the West and Northeast agree compared to the Midwest and South. Consumers in the West and Northeast regions are more likely to agree with the statements about the connection between the environment and our food system. Generally, a smaller proportion of consumers agree with the statements regarding the health benefits of alternative food options (e.g., plan-based milk, gluten-free).

Figure 19. Share of Consumers who *'Somewhat Agree'* or *'Strongly Agree'* with Claims about Food by U.S. Census Region, Mar. 2022 - Oct. 2023

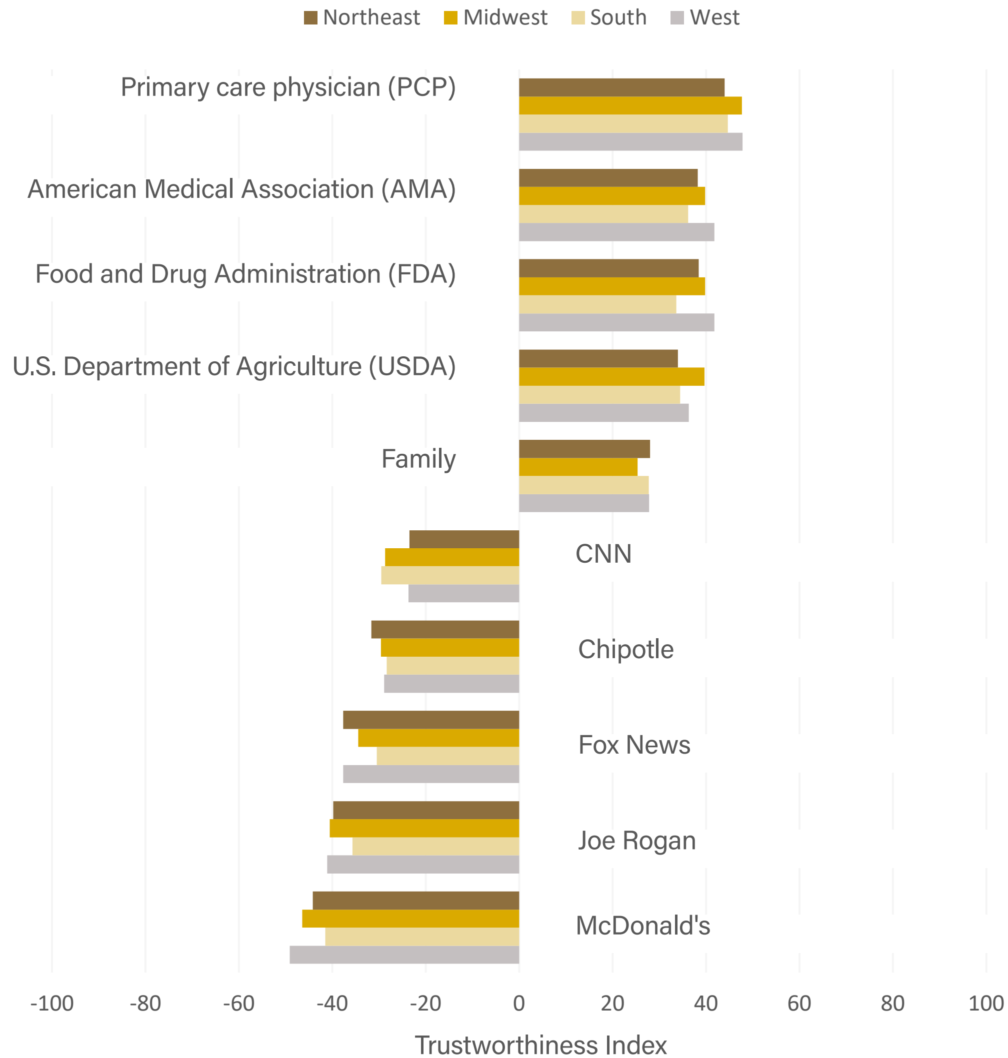


CONSUMER TRUST

Who do Americans trust on topics of food?

Respondents select their most trusted and least trusted sources of food-related information, which are scored on a Trust Index from -100 (least trusted) to 100 (most trusted) (**Figure 20**).[9] The figure shows the top 5 most and least trusted sources of food-related information as indicated by consumers. In general, we see many similarities across the four main U.S. Census regions. For instance, primary care providers continue to be considered the most trusted sources of food-related information, regardless of geographic region. Fast food chains and news agencies tend to be trusted less as sources of food-related information. The USDA is trusted slightly more by consumers in the Midwest region relative to other regions, which may be reflective of the large role agriculture plays in the economies of many states within that region.

Figure 20. Trust Index of Food-Related Information Sources by U.S. Census Region, Jan. 2022 - Oct. 2023



ENDNOTES

1 Data were collected from an online panel maintained by the company Dynata over a four-day period from October 16-19, 2023. The eligible population included U.S. adults ages 18+. A weighting method called iterative proportional fitting (or raking) was applied to ensure a demographically balanced sample by age, sex, race, census region, income, and SNAP participation. Every respondent from the previous month was re-contacted and asked to take the survey again. About 49% of September's sample participated this month, thus the rest of the sample was filled in with a new pool of respondents. Data collection for every survey begins on the third Monday of each month, unless otherwise dictated by holidays or extenuating circumstances. This report is released on the second Wednesday of the following month.

2 Sample sizes per U.S. Census Region:

January 2022 - October 2023	Northeast: n=5,579; Midwest: n=5,735; South: n=10,505; West: n=5,666
January - October 2022	Northeast: n=2,567; Midwest: n=2,611; South: n=4,790; West: n=2,511
January - October 2023	Northeast: n=2,469; Midwest: n=2,607; South: n=4,778; West: n=2654
October 2023	Northeast: n=255; Midwest: n=289; South: n=457; West: n=246

3 Questions were inspired by last October's Consumer Food Insights survey as well as the annual Thanksgiving Outlook Report from Butterball, LLC (2023).

4 Zhao, X., & Epley, N. (2022). Surprisingly Happy to Have Helped: Underestimating Prosociality Creates a Misplaced Barrier to Asking for Help. *Psychological Science*, 33(10), 1708-1731. https://doi.org/10.1177/09567976221097615

5 The Sustainable Food Purchasing (SFP) Index is a self-reported measure of food purchasing designed to assess how well consumer shopping habits align with healthy diets from sustainable food systems, as described by the EAT-Lancet Commission on Food, Planet, Health. A top score of 100 reflects consumer food purchasing that aligns with a set of key recommendations for better nurturing human health and supporting environmental sustainability. The SFP Index includes six components—Nutrition, Environment, Social, Economic, Security, and Taste—correlating with the different strategies for achieving food systems transformation.

ENDNOTES

6 Food at home (FAH) refers to food sales meant for home or off-site consumption and the value of donations and non-market acquisitions, which is acquired from outlets such as grocery stores, convenience stores, direct sales, etc. Food away from home (FAFH) refers to food sales meant for immediate consumption, federal food programs, and food furnished as an ancillary activity, which is acquired from outlets such as restaurants, bars, schools, etc.

7 High or marginal food security (i.e., food secure): 0-1 reported indications of food-access problems; little indication of change in diet or food intake. Respondents who reported an U.S. Census Region above 185% of the Federal poverty line were also screened as having high food security. This determination was made according to research by Ahn et al. (2020), which shows that using a modified income-based screening procedure for internet surveys better approximates government estimates of food insecurity. Low food security (i.e., food insecure): 2-4 reported indications of reduced quality, variety, or desirability of diet; little indication of reduced food intake. Very low food security (i.e., food insecure): 5-6 reported indications of disrupted eating patterns, changes in diet, and reduced food intake.

8 This scale is based on the Cantril Scale used in Gallup's World Poll to assess well-being and happiness around the world. Thus, we use the same validated conceptual labels—thriving, struggling, and suffering—to group responses.

9 Trust questions were not fielded in the Consumer Food Insights survey from October 2022 - December 2022. The sample for this block of questions spans Jan. 2022 - Sept. 2022 and Jan. 2023 - Oct. 2023.