Volume 2, Issue 3: March 2023

CONSUMER FOOD INSIGHTS

Center for Food Demand Analysis and Sustainability
College of Agriculture, Purdue University
Jayson L. Lusk and Sam Polzin

TABLE OF CONTENTS

INTRODUCTION

Consumer Food Insights 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 for more details.

In this issue, we break down our results by employment status, comparing those consumers who are working age and retirement age, i.e., not working (ages 18-64), working (ages 18-64), working (ages 65+) and retired (ages 65+).[2] We aggregate the last twelve months of data (April 2022-March 2023) to perform this analysis. New questions included in this month's survey asked about consumers' experiences with food labels and which labels they use. Lookout for a deep dive into these food label questions to be released next month. Interested in additional analysis of our data? Please contact cfdas@purdue.edu to learn how you can join our industry consortium.

KEY INSIGHTS FROM MARCH

- 13% of consumers experienced a stockout of one or more items at the grocery store, down from 22% in January.
- Total food spending is up 5% from this time last year, while food inflation expectations for the next year sit around 4%.
- 27% of working age adults without a job experienced food insecurity in the last year compared to 12% among those with a job.
- Unemployed adults have the lowest rates of diet happiness while retirees have the highest rate of diet happiness.
- Unemployed adults less readily pursue food behaviors that are commonly viewed as more sustainable or ethical.
- Standard product labels like ingredient lists and nutrition fact panels are considered trusted and important by most consumers.

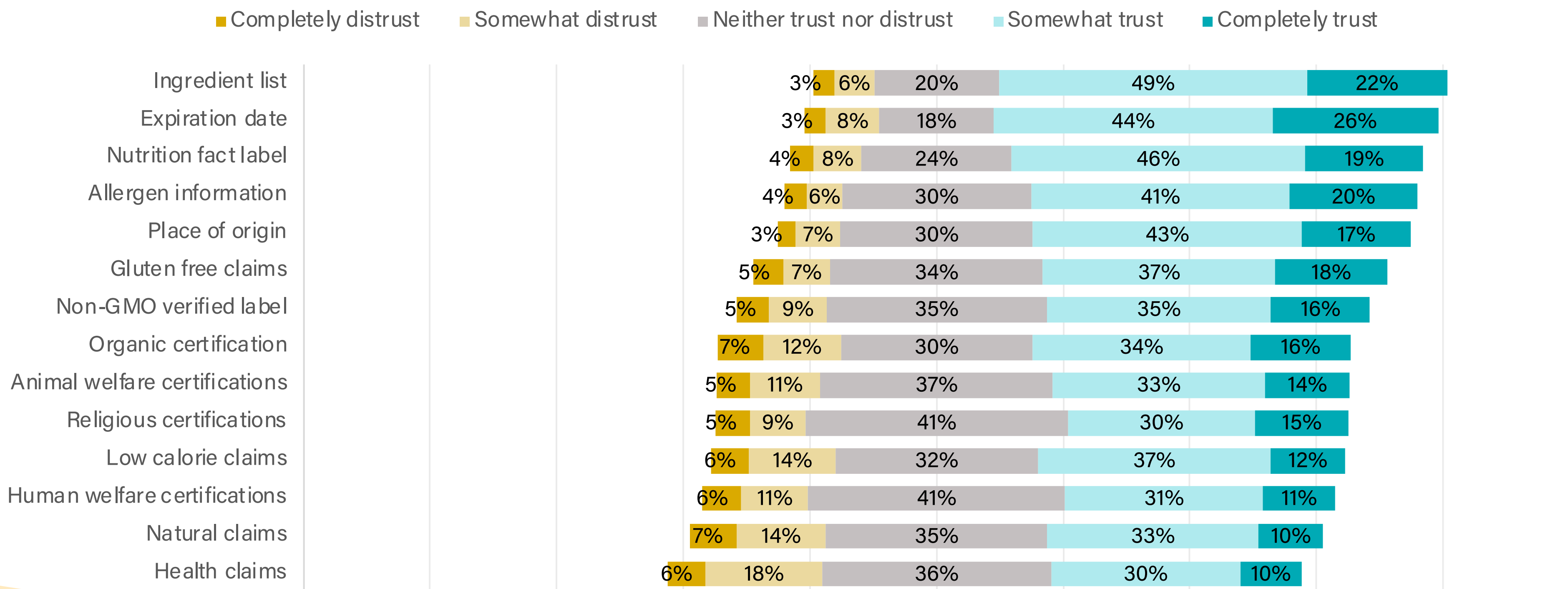
SFP INDEX	FOOD INSECURITY	FOOD SPENDING	GROCERY STOCKOUTS
70/100	14%	$186/WEEK	13%

FOOD LABELS

Which food labels do Americans most trust?

Every surveyed food label is trusted more than it is distrusted (**Figure 1**). The top three most trusted labels include the ingredient list, expiration date and nutrition fact label. These labels are almost always on every packaged food a consumer will purchase. In contrast, the top three most distrusted labels include low calorie claims, natural claims and health claims. Compared to these more commercial labels, consumers appear to put greater trust in more utilitarian labels like allergen information or place of origin. Notably, vetted labels that are commonly seen on packaging, such as non-GMO verified or organic certification, do not seem to enjoy a premium in trust.

Figure 1. Share of Consumers who Trust Food Labels, Mar. 2023

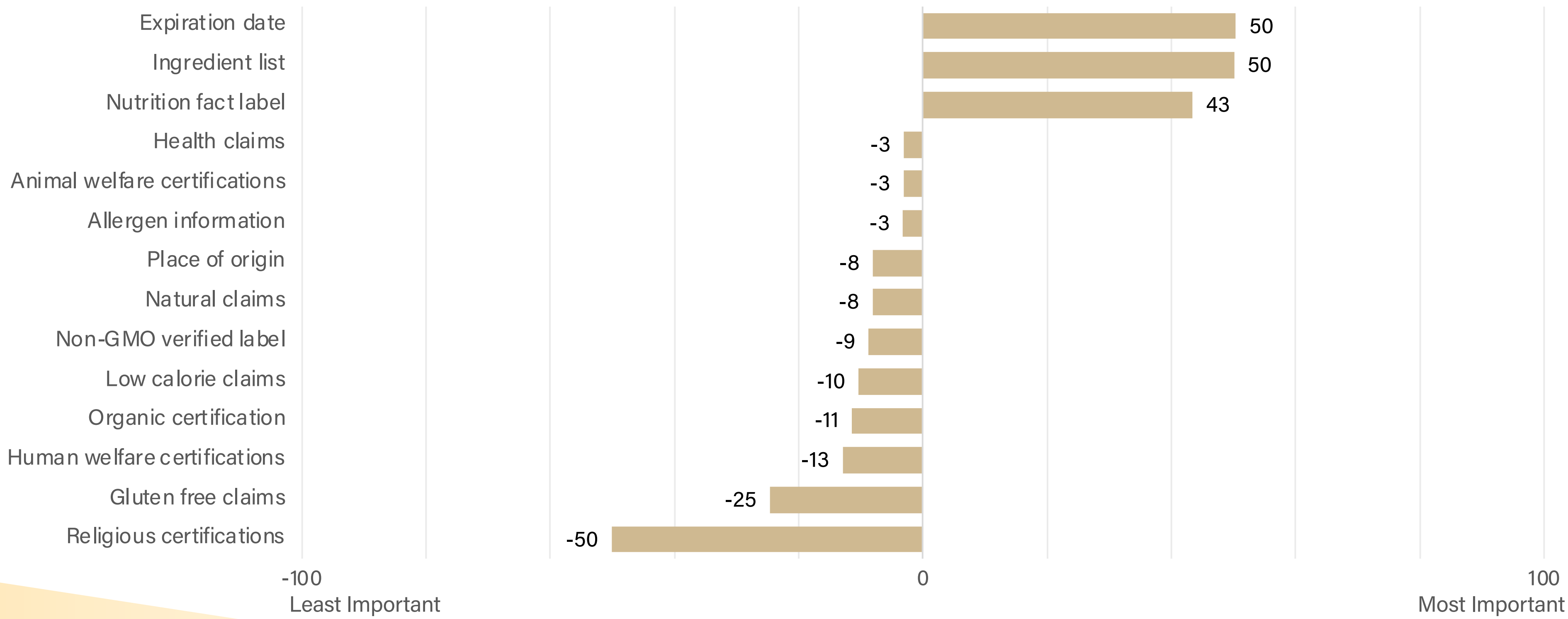


FOOD LABELS

Which food labels do Americans rate as most important?

Consumers were also asked to pick the three most important and three least important labels when choosing food products to buy at the grocery store, which we then scored on a relative index of importance (**Figure 2**). Similar to the measure of trust in **Figure 1**, the ingredient list, expiration date and nutrition fact label rank as the top three most important food labels. However, while health claims had the lowest share of trust, they rank fourth on this index. Furthermore, other than the top three labels, no other label was selected as 'most important' by a significant share of consumers, putting them all underwater on our index of importance.

Figure 2. Index of Food Label Importance to Consumers, Mar. 2023



SUSTAINABLE DIETS

Are Americans purchasing sustainable foods?

The Sustainable Food Purchasing (SFP) Index[3] continues to show a reliably flat trend line across each of its sub-indicators since January 2022 (**Figure 3**). Minor upticks in these scores, such as those that occurred this month, have yet to be borne out in the long-term data. However, we find that these indicators diverge when the index is disaggreagted by employment status of consumers (**Figure 4**).

Americans who are 65 years or older, regardless of whether or not they are still working, are doing better on the overall SFP index. Although, those who have retired report lower scores on the *environment*, *social* and *nutrition* indicators while recording a higher *economic* score. When focusing on working age Americans alone, those who currently have a job are doing better across the board. In fact, working Americans ages 18-64 perform just as well as working Americans ages 65+ on the *environment*, *social* and *nutrition* indicators, but they fall behind on the *security*, *economic* and *taste* indicators.

Figure 3. Sustainable Food Purchasing Index, Jan. 2022 - Mar. 2023

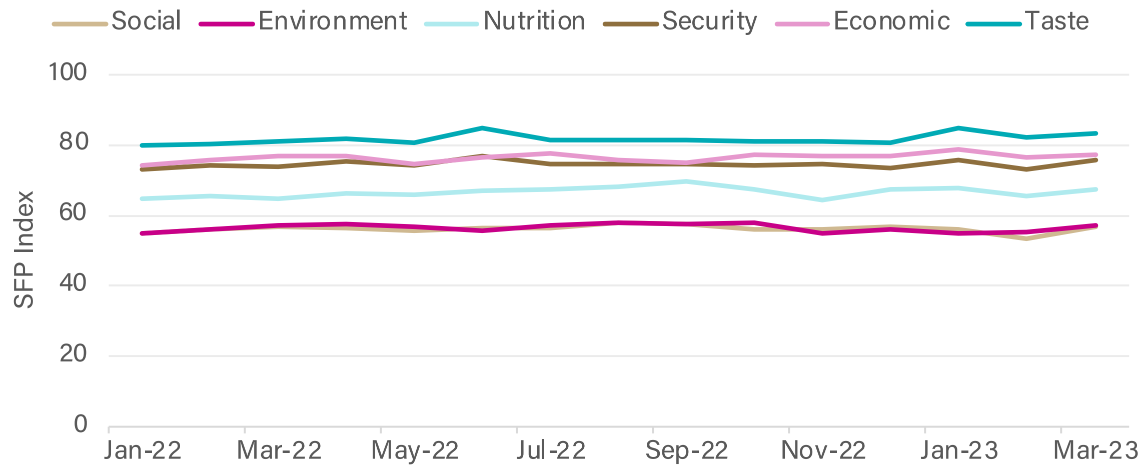
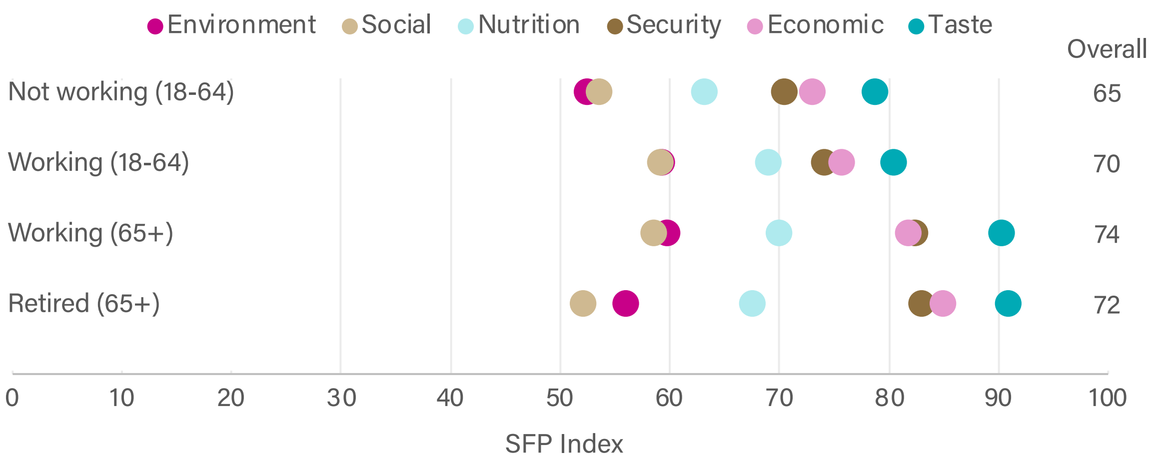


Figure 4. Sustainable Food Purchasing Index by Religious Affiliation, Apr. 2022 - Mar. 2023

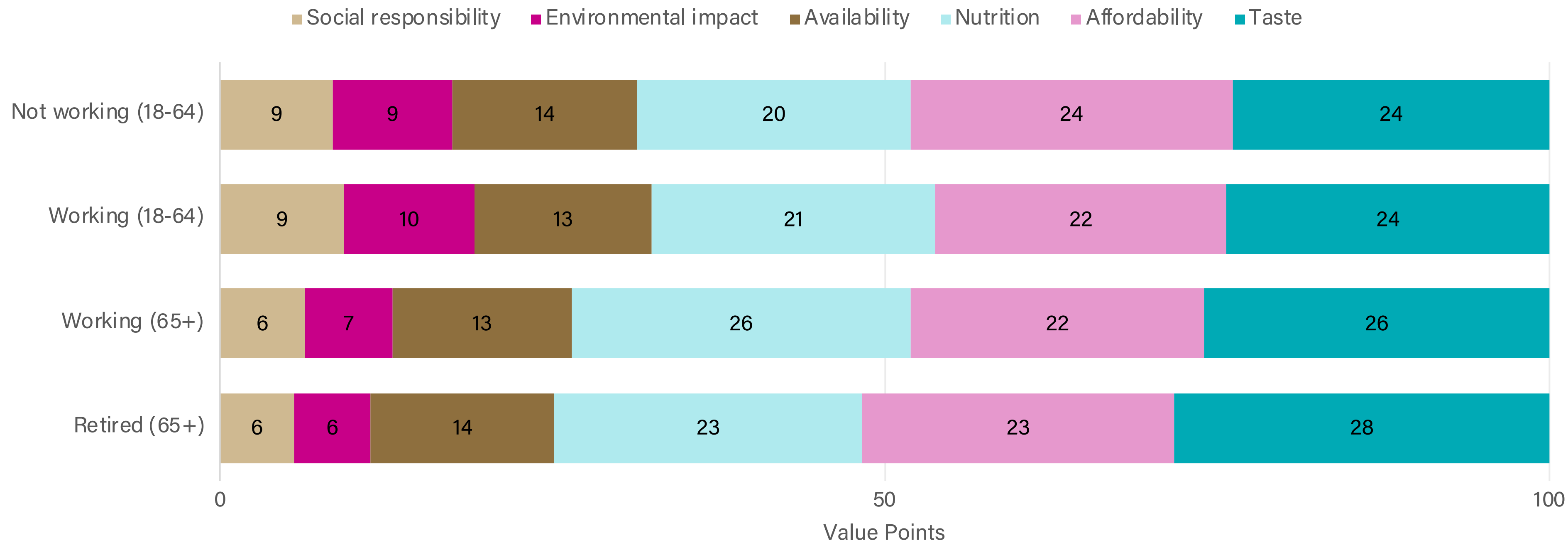


FOOD VALUES

What attributes do Americans most value when purchasing food?

Respondents were 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. As of March 2023, how much consumers value these different sustainability aspects remains relatively consistent on a monthly basis. However, when looking at the employment status of a person, their food values appear to be affected (**Figure 5**). For example, consumers of working age without a job value the affordability of their food slightly more than those with a job. Age also appears to correlate with how much consumers value the social responsibility and environmental impacts of their food. Those who are retired are further willing to trade the nutritional content of their food for tasty and pleasing food.

Figure 5. Share of 100 Points Allocated to Food Attributes by Religious Affiliation, Apr. 2022 - Feb. 2023



FOOD EXPENDITURES

How much are American households spending on their food?

Respondents were asked to estimate the weekly food spending of their household over the last 30 days (**Figure 6**). On average, consumers reported spending $121/week at the grocery store (FAH) and $65/week on restaurants and other carryout meals (FAFH).[4] Compared to last March, FAH spending is thus up 6.1% while FAFH spending is up 3.2%. Of note, FAFH spending has proven to be more volatile over the last year while FAH spending continues to be more consistent on a month-to-month basis.

The consumer estimate of food inflation over the past year declined again. Consumers appear to correctly believe that inflation has yet to fall dramatically from its highs last year (**Figure 7**). In addition, the consumer prediction for food inflation over the next year remains steady at just over 4%, which is optimistic compared to the 7.5% rate of inflation that the government predicts for 2023. While consumers have estimated rates of inflation under the official measures, their sense of the general trends has not been off base.

Figure 6. Weekly Household Food Expenditures, Jan. 2022 - Mar. 2023

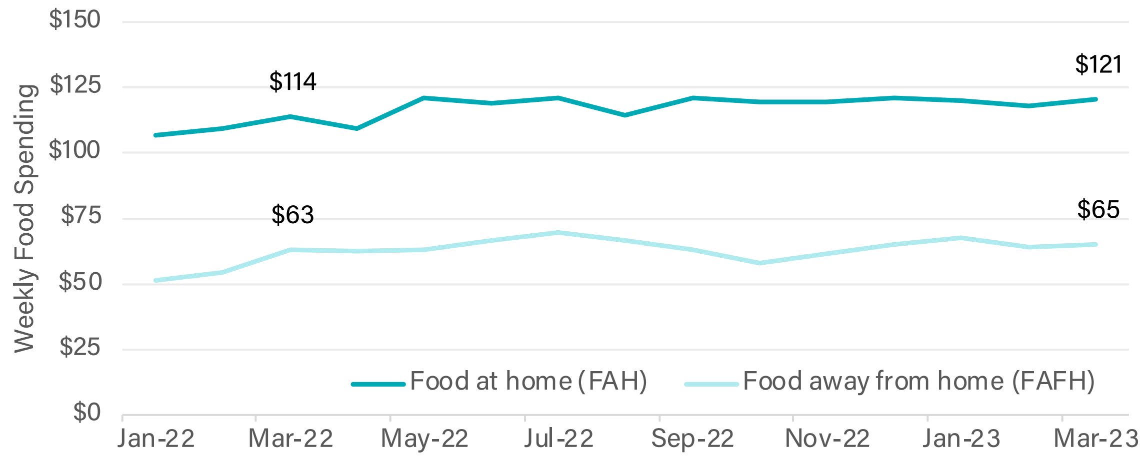
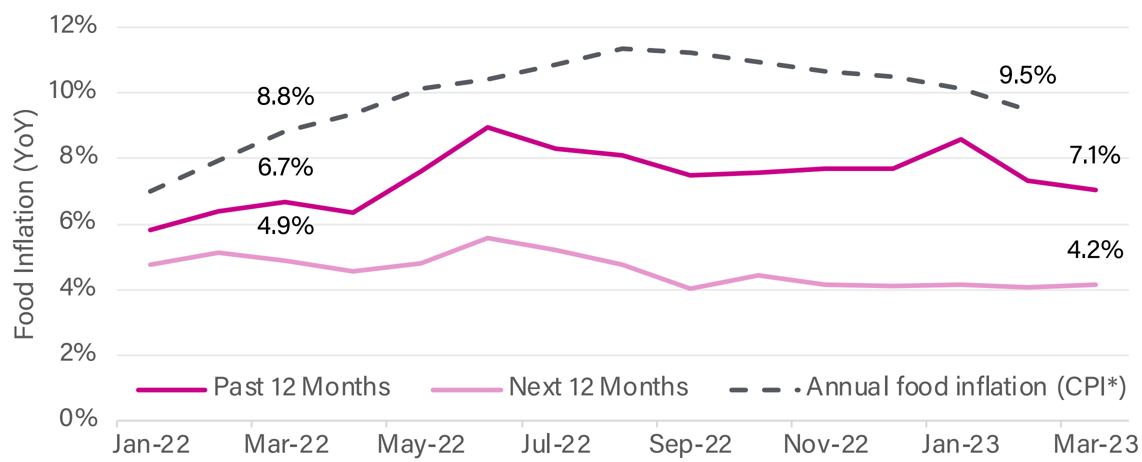


Figure 7. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Mar. 2023



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

FOOD EXPENDITURES

How is American grocery shopping changing in a post-pandemic environment?

As we track consumer food spending, a couple indicators have continued to decline since last year. First, the share of consumers who bought groceries online is down to 13% from 18% last March (**Figure 8**). Though this decline might be leveling off, it appears that online grocery shopping has yet to hit its floor. Second, the share of consumers who could not find an item at the grocery store has fallen from 21% last March to 13% (**Figure 9**). We plan to continue to feature this figure as it provides a ket insight into supply chains resilience across the country. For example, as egg prices dramatically rose in December and January, we observed a spike in stockouts motivated by empty egg shelves.

About **70%** of American grocery shopping occurs at grocery stores, unchanged from last March.

Figure 8. Rate of Online Grocery Shopping, Jan. 2022 - Mar. 2023

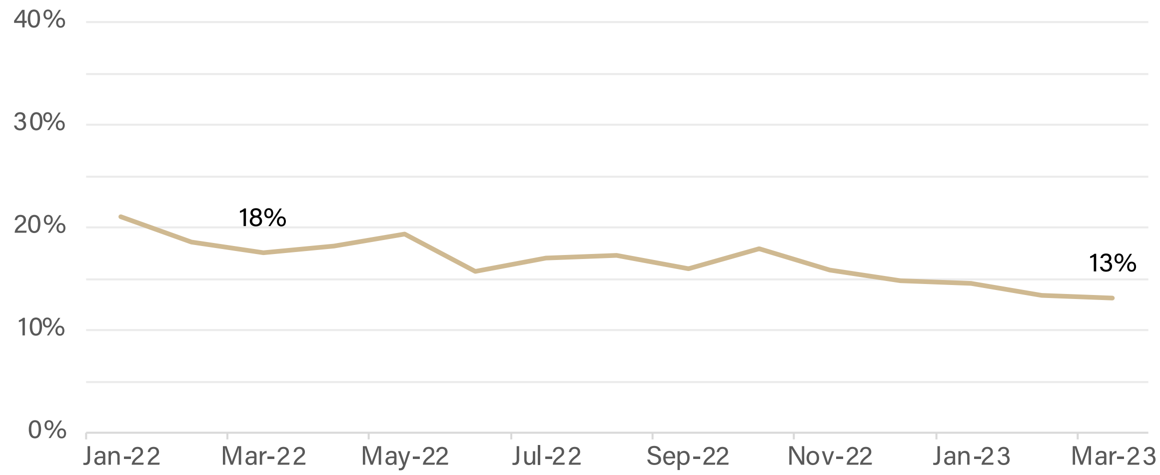
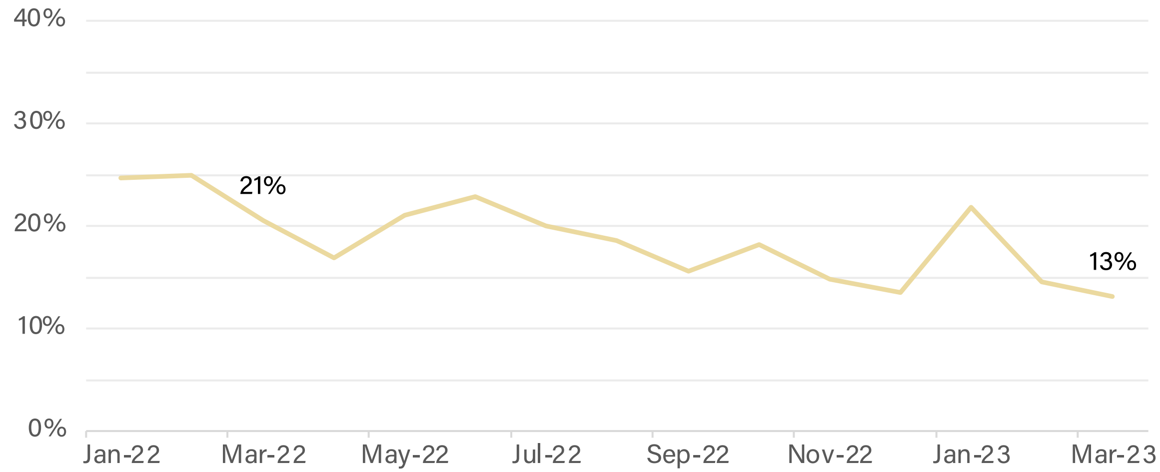


Figure 9. Rate of Grocery Stockouts (of at least one food product), Jan. 2022 - Mar. 2023



FOOD SECURITY

Are Americans having trouble buying food for their families?

Based on responses to a set of six standardized questions about food purchased and eaten in the household in the last 30 days, we estimate the national rate of food insecurity to be about 14.0% as of March 2023.[5] **Figure 10** shows that this rate is three percentage points lower than last March but remains consistent with the relatively small three-point range that we have captured since launching the food insecurity measure.

However, food insecurity is dramatically higher for people of working age who are not currently employed (27%) relative to the national average (**Figure 11**). Because food insecurity is broadly recognized as having a lack of money or other resources for sufficient food, unemployment is often linked to this type of severe food hardship in other research. Although, adults of retirement age are doing much better regardless of whether or not they are currently working. On average, this older population has more accumulated wealth and is better served by entitlement programs, so this result also aligns with expectations.

Figure 10. Rate of Household Food Insecurity in Last 30 Days, Jan. 2022 - Mar. 2023

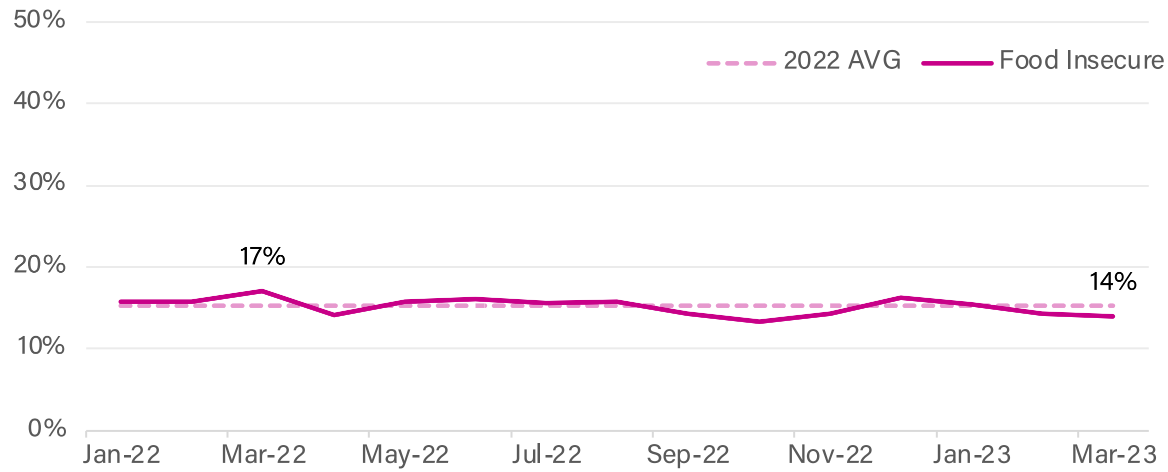
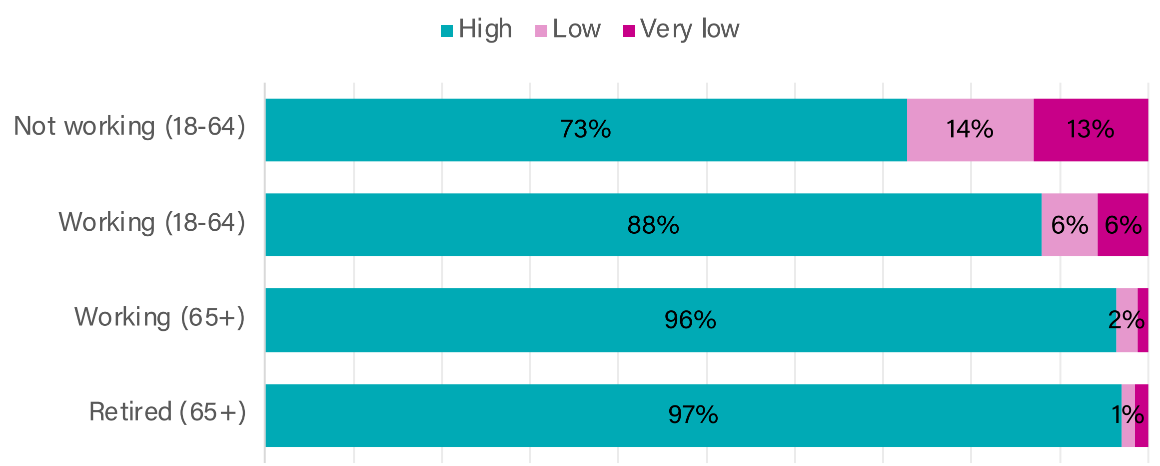


Figure 11. Number of Months SNAP Households have Received Benefits, Apr. 2022 - Mar. 2023

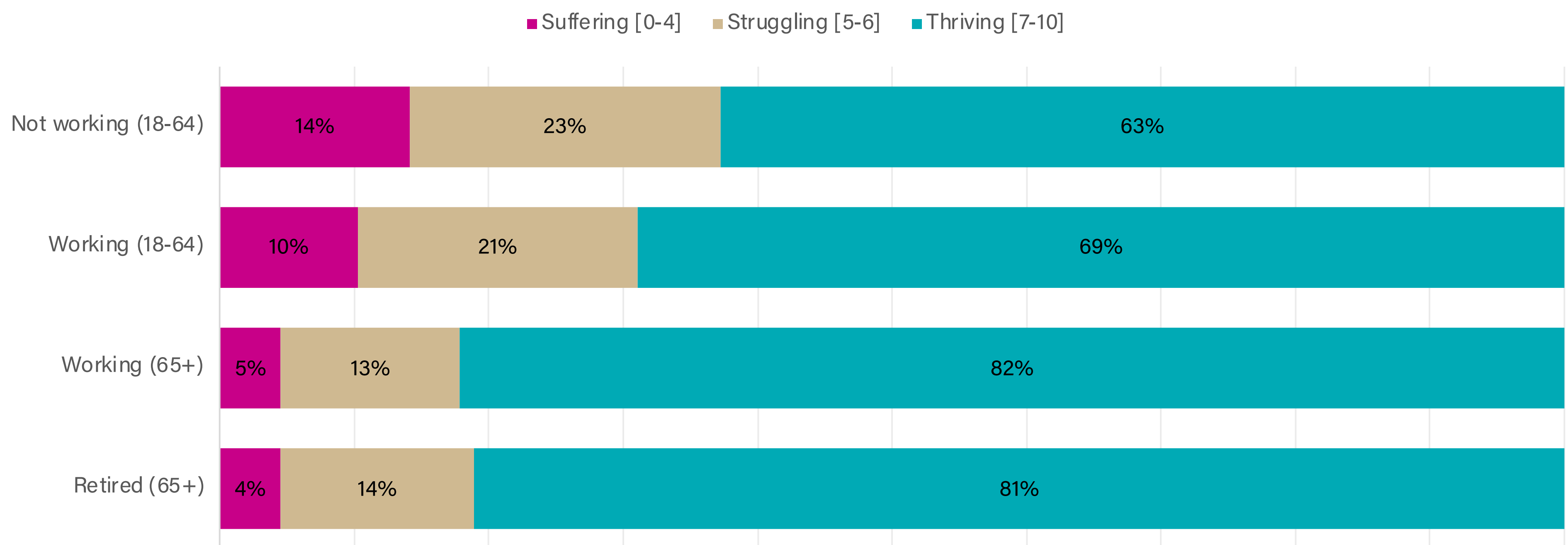


FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents were asked to score their own diet on a 0-10 scale, with top of that scale representing their ideal diet.[6] Scores were then categorized as thriving (7-10), struggling (5-6), or suffering (0-4). Nationally, a majority of Americans (69%) continue to be considered thriving. But, **Figure 12** further reveals a more complicated picture in which only 63% of adults ages 18-64 without a job are thriving. Those with a job much more closely reflect the national average, while those of retirement age are thriving at a dramatically higher rate (82%). These differences also bear out in rates of happiness as unemployed adults trail retired adults in both diet happiness and life happiness by about 10 percentage points (**Figures 13 & 14**).

Figure 12. Diet Well-Being Index (0-10 Scale) by Religious Affiliation, Apr. 2022 - Mar. 2023



FOOD SATISFACTION

Figure 13. Rate of Consumer Diet Happiness by Employment Status, Apr. 2022 - Mar. 2023

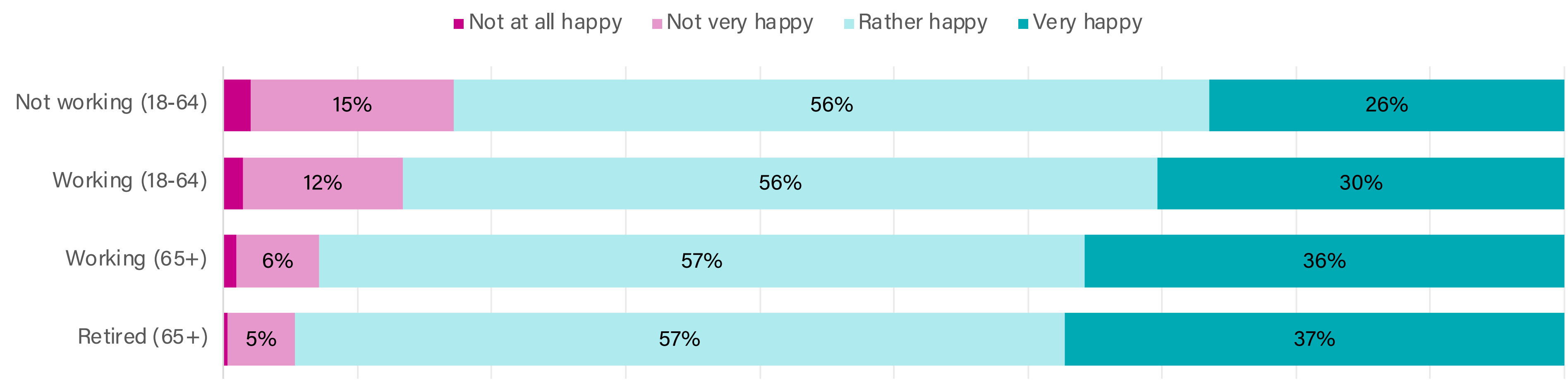
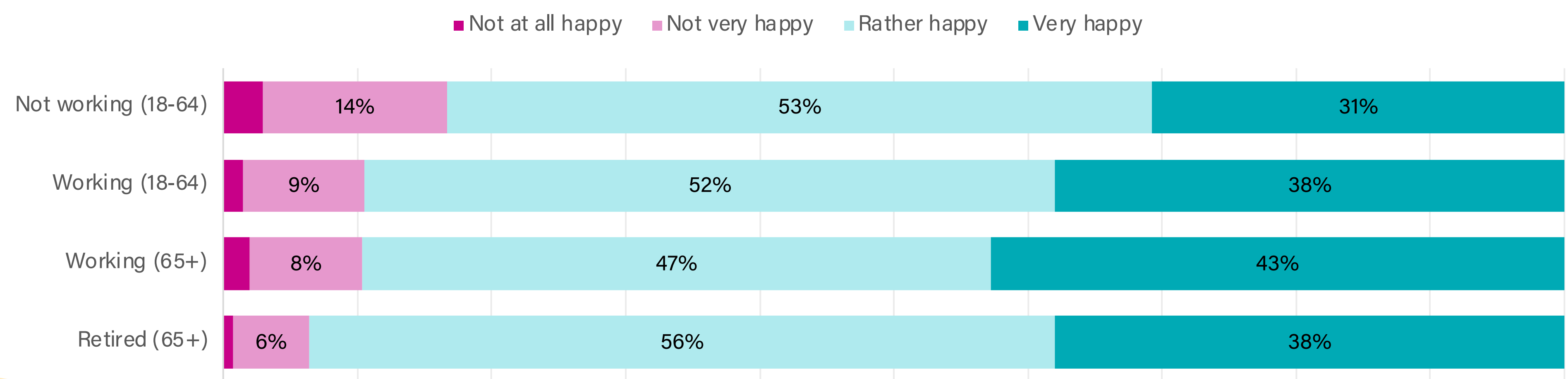


Figure 14. Rate of Consumer Life Happiness by Employment Status, Apr. 2022 - Mar. 2023



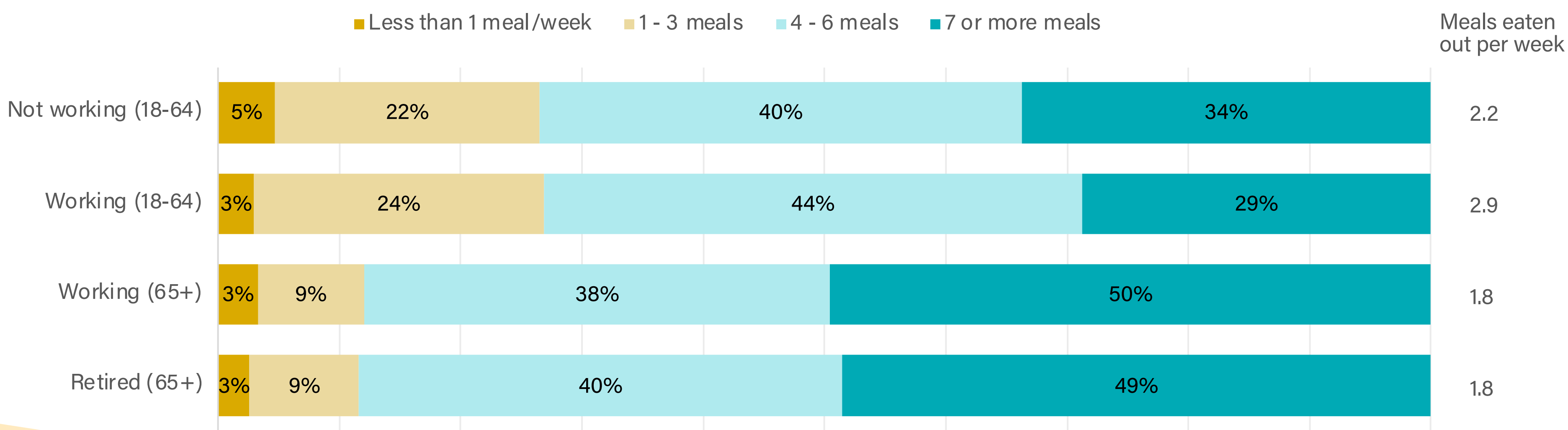
CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Among employed and unemployed adults (18-64), employed adults are eating at home slightly less (**Figure 15**). This fact is further reflected in the average number of meals eaten out per week (2.9 meals for employed adults vs. 2.2 meals). Among adults of retirement age, this group is generally eating many more meals at home regardless of whether or not they have stopped working.

Figure 16 reveals that employed consumers are also pursuing moderately different food choices. For example, adults (ages 18-64) who are working more often choose the food option that is conventionally seen as more sustainable or ethical, such as wild-caught fish or grass-fed beef. These food choices typically cost more, so this distinction is not suprising. They are also looking for food labels like natural or GMO labels more often. Adults of retirement age are just as unlikely to choose these behaviors as the unemployed, which is likely, in part, a product of generational differences. However, retirees are least likely to be prioritizing sustainability or reading labels, which aligns with some research showing that food behaviors change when a person retire.

Figure 15. Number of of Home-Cooked Meals and Meals Eaten Out Per Week by Employment Status, Apr. 2022 - Mar. 2023



CONSUMER BEHAVIORS

Figure 16. Frequency of Consumer Shopping and Eating Habits by Employment Status, Apr. 2022 - Mar. 2023

	Not working (18-64)	Working (18-64)	Working (65+)	Retired (65+)
Chose generic foods over brand name foods	3.4	3.4	3.2	3.2
Chose local foods over non-local foods	3.0	3.2	3.0	2.9
Chose wild-caught fish over farm-raised fish	2.9	3.1	2.8	2.7
Chose grass-fed beef over conventional beef	2.8	3.1	2.5	2.4
Chose cage-free eggs over conventional eggs	2.8	3.0	2.6	2.3
Chose organic foods over non-organic foods	2.6	3.0	2.5	2.1
Chose plant-based proteins over animal proteins	2.4	2.7	2.1	1.8
Checked the use-by/sell-by date at the store	4.0	4.0	4.2	4.2
Checked the nutrition label before buying new foods	3.3	3.5	3.5	3.3
Checked where my food originated	2.8	3.1	2.9	2.6
Checked for natural or clean labels	3.0	3.2	2.9	2.5
Checked for food recalls	2.9	3.0	2.7	2.4
Checked for GMO ingredients	2.7	3.0	2.6	2.3
Checked how my food was produced	2.7	3.0	2.6	2.3
Took steps to reduce food waste at home	3.7	3.7	4.0	4.0
Recycled food packaging	3.3	3.6	3.6	3.7
Threw away food past the use-by date	3.2	3.4	2.9	2.9
Composted food scraps	2.3	2.6	2.1	1.9
Ate fruits and vegetables without washing them	2.2	2.5	1.8	1.8
Ate rare or undercooked meat	1.9	2.2	1.4	1.5
Ate raw dough or batter	1.9	2.2	1.3	1.3

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

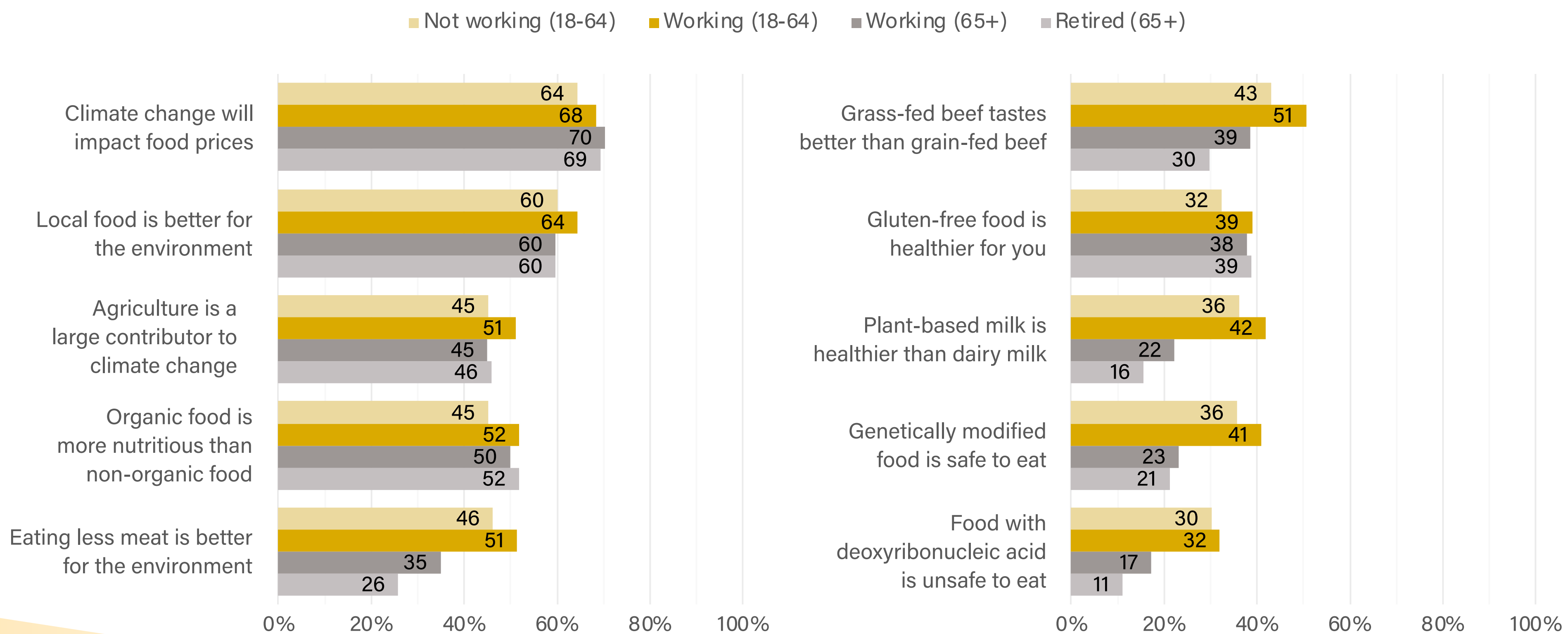
PURDUE UNIVERSITY | College of Agriculture

CONSUMER BELIEFS

What do Americans believe about their food and food system?

We compare consumer agreement with simple statements about food and nutrition across employment groups (**Figure 17**). Among the 18-64 age group, those who are working are slightly more likely to agree with any given statement compared to their peers who are not working. The older group of consumers (65+) also demonstrates more skepticism about several topics, such as eating less meat benefiting the environment and plant-based milks being healthier, and retirees are the most skeptical of these claims.

Figure 17. Share of Consumers who 'Somewhat Agree' or 'Strongly Agree' with Claims about Food by Employment Status, Apr. 2022 - Mar. 2023



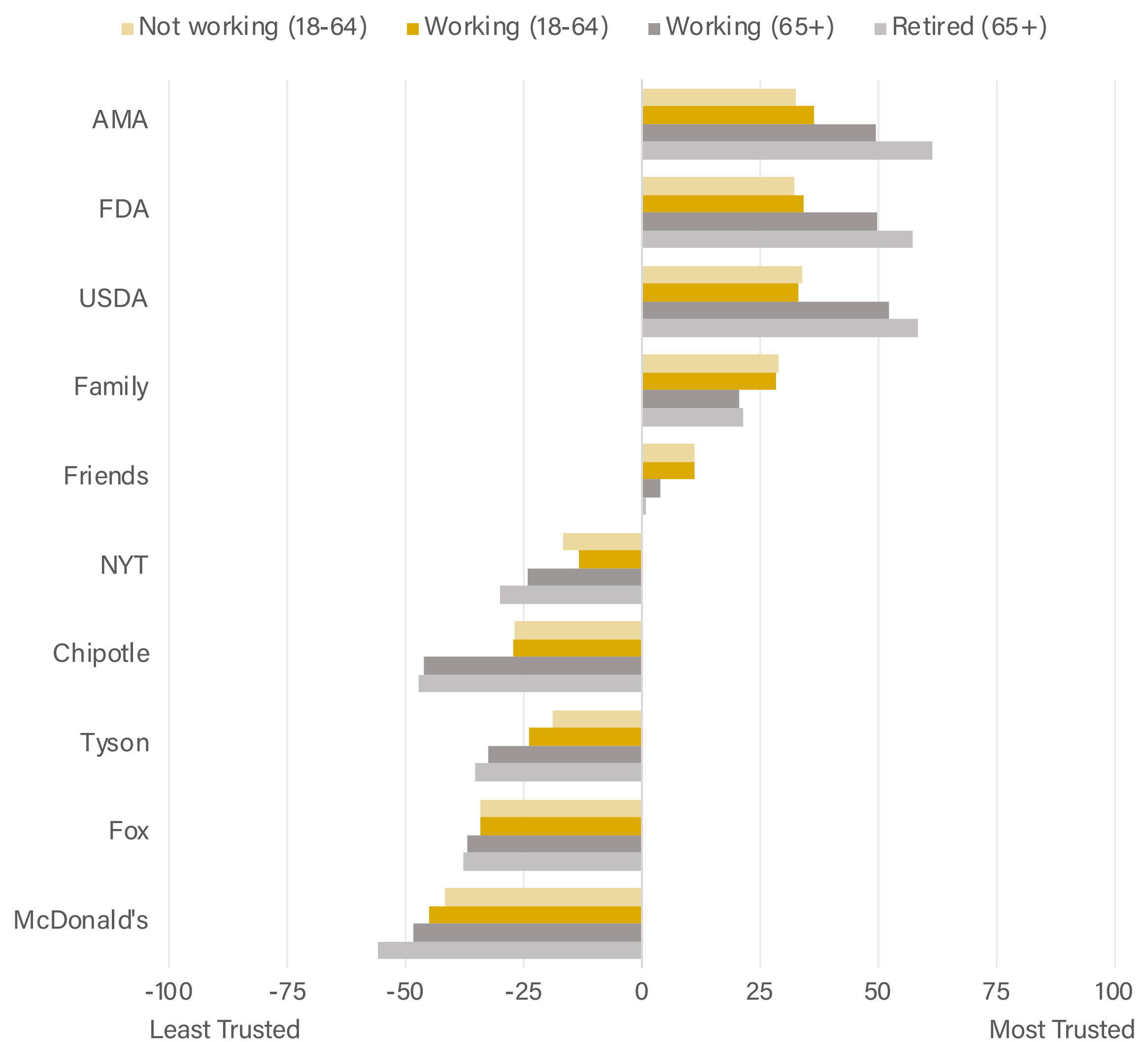
CONSUMER TRUST

Who do Americans trust on topics of food?

We asked respondents to select their five most trusted and five least trusted sources of food-related information and scored these sources on a Trustworthiness Index. **Figure 18** shows that consumer trust varies more based on the age of the person than whether or not they are working. Among the groups in this analysis, those who are 65+ trust institutions like the American Medical Association (AMA) much more while those under 65 trust individuals like friends to a greater degree. Distrust for food companies and news media is also moderately higher among those of retirement age. While the employment status of a person correlates little with their trust, higher trust among retirees compared to their peers is noticeable, which indicates material differences between these two populations.

This month, we replaced OSU with Purdue University on our index. **Purdue** scored a 4, while **OSU** averaged -4 and **Harvard** averaged 7 over the past year.

Figure 18. Trustworthiness Index of Food Information by Employment Status, Apr. 2022 - Mar. 2023



TAX SEASON

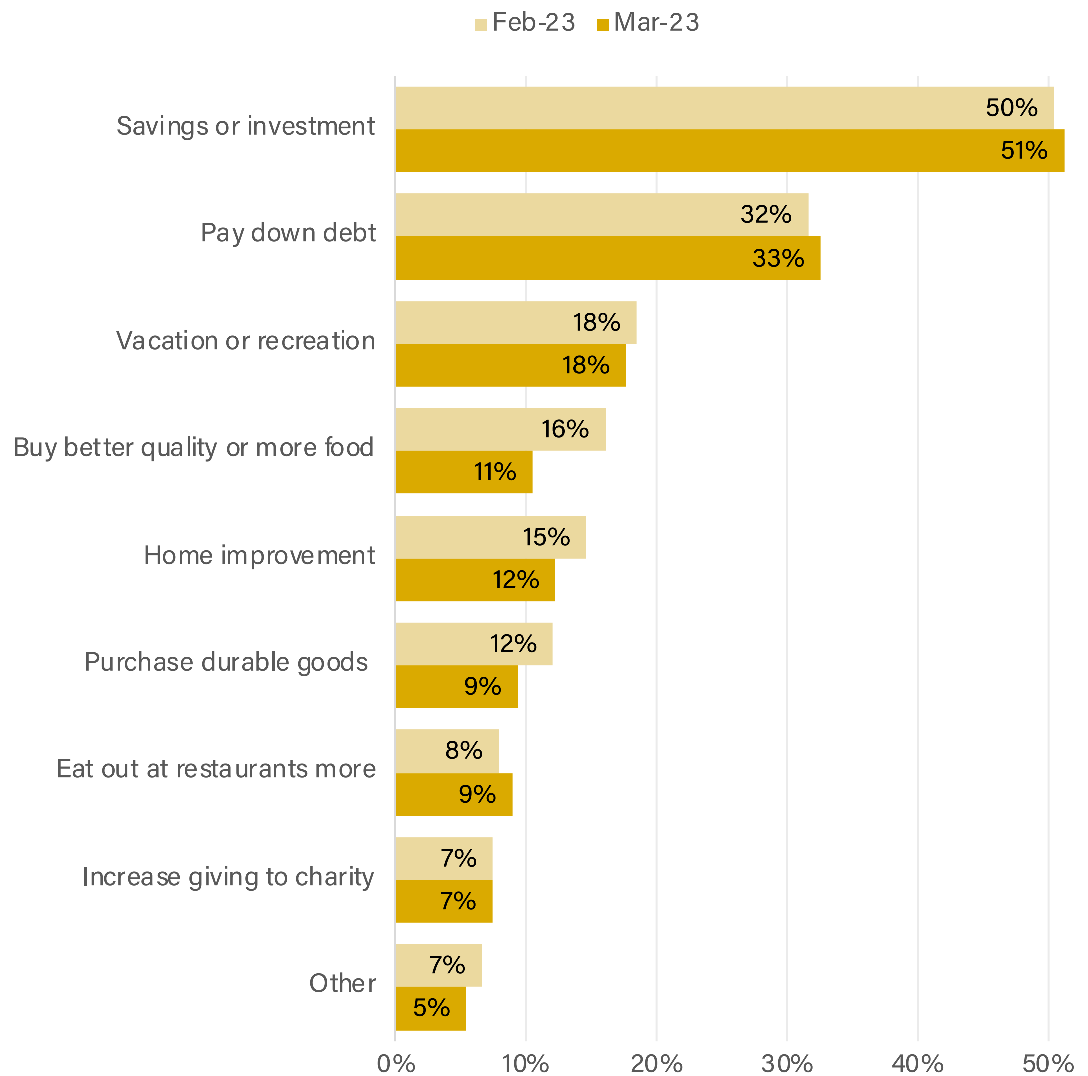
How do Americans plan to use their tax refund this year?

Like last month, we asked respondents if they have received or expect to receive a tax refund this year. So far, 32% report receiving a refund, while another 29% say that they expect a refund when they file.

Like last month, a majority of consumers (51%) still report plans to save their tax refund, while a third (33%) also plan to pay down their debts (**Figure 19**). Of note, the share of people who say they intend to buy better quality or more food has fallen this month. This option is the only one that saw more than a 3 percentage point change, and it is clear that a minority of people will be using their refunds on discretionary spending.

Similar to last month, about 50% of consumers expect to only receive $1,500 or less in a refund. As of mid-March, the IRS says that the average refund is about 11% smaller than this time last year. So, consumers are likely not experiencing the same windfall of cash that they may have in recent years, which we will continue to track.

Figure 19. Planned Uses for 2023 Tax Refunds, Feb. - Mar. 2023



ENDNOTES

1 Data were collected from an online panel maintained by the firm Dynata over a three-day period from March 20-22, 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 46% of February'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, while this report is released on the second Wednesday of the following month.

2 Sample sizes for demographic segmentation: Not working, ages 18-64 (n=4,096); Working, ages 18-64 (n=5,907); Working, ages 65 and up (n=744); Retired (ages 65 and up (n=4,143).

3 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.

4 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.

5 High or marginal food security (i.e., food secure): 0-1 reported indications of food-access problems; little or no indication of change in diet or food intake. Respondents who reported an annual household income 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 demonstrates that using a modified income-based screening procedure for internet surveys better approximates the 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 or no indication

ENDNOTES

of reduced food intake. Low food security (i.e., food insecure): 2-4 reported indications of reduced quality, variety, or desirability of diet; little or no indication of reduced food intake.

6 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.