Volume 3, Issue 2: February 2024

CONSUMER FOOD INSIGHTS

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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. As a reminder, we will assess food sustainability, values and satisfaction quarterly in 2024. We measure food values this month.

In this issue, we key into consumer sentiment by disaggregating the data based on consumers' 12 month food price inflation expectations. Consumers are divided into two groups: (1) those expecting food prices to fall or remain unchanged in the coming year and (2) those expecting food prices to rise.[2] We explore correlations and trends using data from the past 26 months.

KEY INSIGHTS FROM FEBRUARY

- 64% of consumers predict food prices to rise in the coming year, and expected inflation is 3.7%.
- Those who predict higher food prices place a higher value on food affordability.
- Average weekly consumer food expenditures rose to $195 per week, up 7% from February of last year.
- Consumers who predict food prices to rise spend a slightly larger share of their food budget on FAH (1.2%).
- Inflation expectations differ by political affiliation with 71% of Republicans and 54% of Democrats expecting higher food prices.
- Average weekly food-away-from-home (FAFH) meals are trending downward as FAFH inflation persists (5.1%).

CPI FOOD INFLATION
2.6%

FOOD INSECURITY
12%

FOOD SPENDING
$195/WEEK

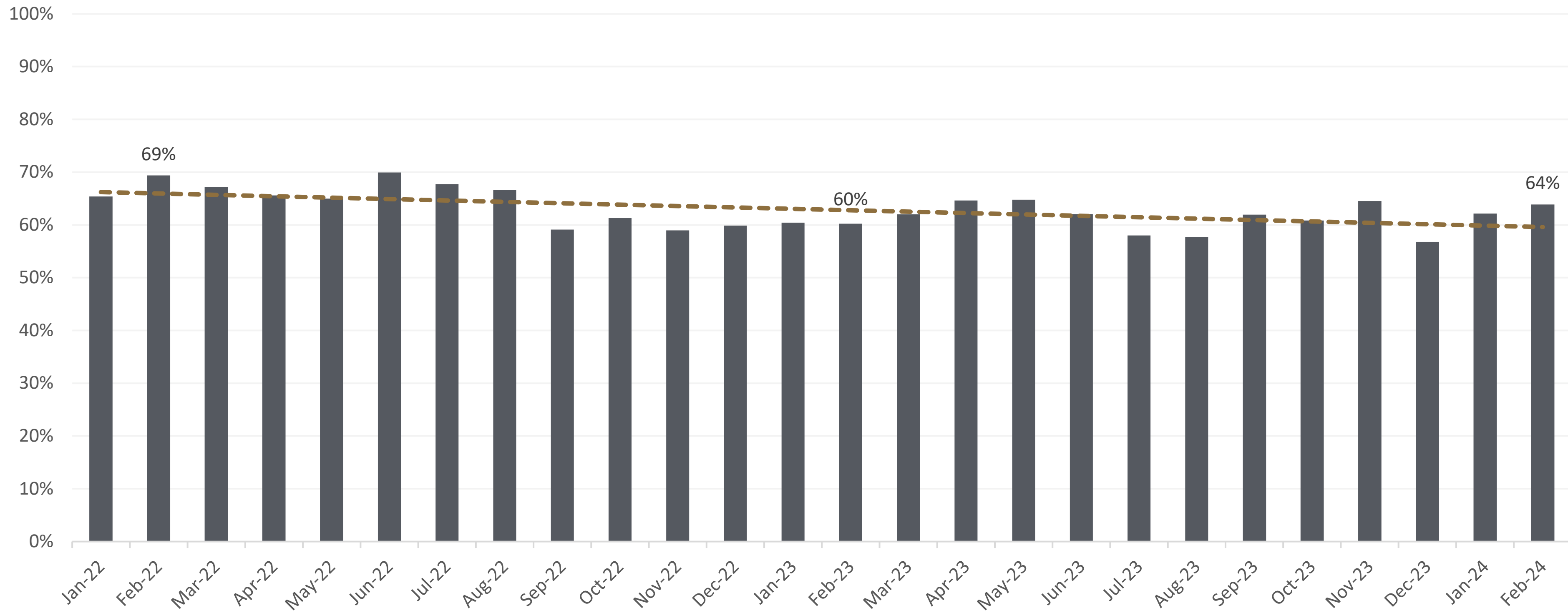
GROCERY STOCKOUTS
13%

INTRODUCTION

How have food price expectations changed over time?

Figure 1 visualizes the proportion of consumers who expect food prices in twelve months to be higher than current food prices. We see a slight downward trend over time. On average, consumer pessimism about future food prices has decreased slightly over the past 26 months. However, the majority of consumers continue to predict an increase in food prices.

Figure 1. Share of Consumers Who Expect Higher Prices Over the Next 12 Months, Jan. 2022 - Feb. 2024

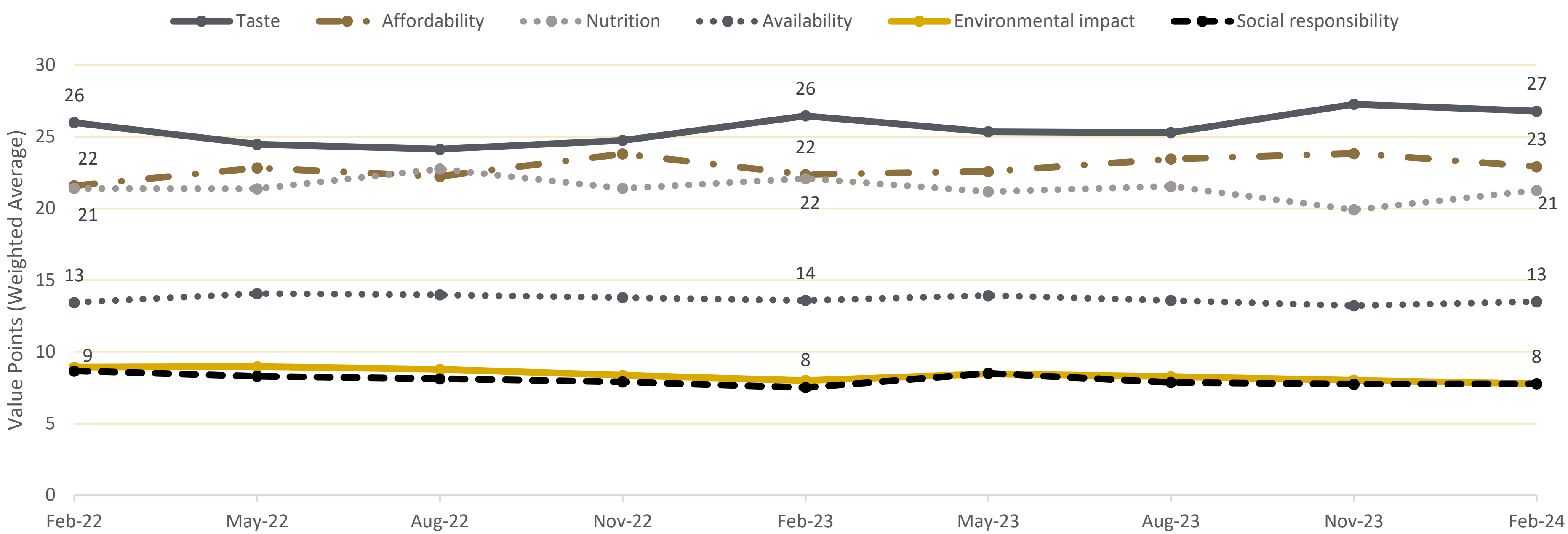


FOOD VALUES

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. **Figure 2** plots the results over the last 26 months of data collection. Taste, affordability and nutrition remain the top attributes consumers value when making decisions at the grocery store, while environmental impact and social responsibility remain the least valued attributes when deciding which foods to buy. Consumers consistently value taste and affordability higher than any other attribute. This points to the importance of the availability of healthy foods that are also affordable and tasty in fostering good nutrition in the U.S.

Figure 2. Share of 100 Points Allocated to Food Attributes, Jan. 2022 - Feb. 2024



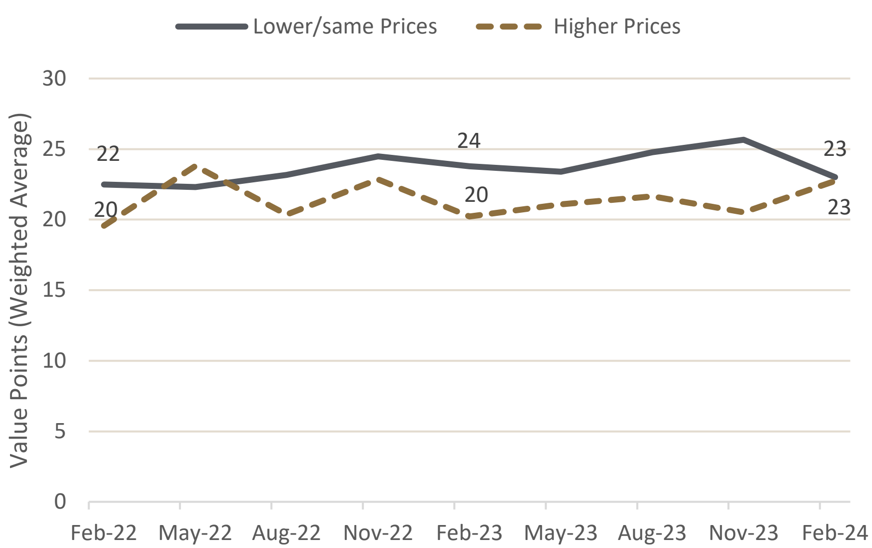
FOOD VALUES

How do food values correlate with food price expectations?

Figure 3 dives into food values by consumer food inflation expectations. We observe slight differences in the proportion of people who predicted higher food prices over the next 12 months when aggregating over the last 26 months of data. We see the largest difference in the value of affordability. Those who predict higher food prices in the future tend to value the affordability of their food more than those who predict prices to go down or stay the same. **Figure 4** shows that this difference has been relatively consistent over time.

Figure 3. Share of 100 Points Allocated to Food Attributes by Food Price Expectations, Jan. 2022 - Feb. 2024

Figure 4. Average Share of 100 Points Allocated to Affordability Over Time by Food Price Expectations, Jan. 2022 - Feb. 2024



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 5**). On average, consumers are spending about $127/week on groceries (FAH) and $68/week on restaurants and other carryout (FAFH)[3]. Total food spending is up 2% from January, 7% from February 2023, and up 19% from February 2022.

The average estimate of food inflation over the past 12 months is 6% (**Figure 6**). The CPI measure of food inflation dropped a fraction of a percent to 2.6% from 2.7% in January. Consumers' inflation expectation for the next 12 months rose slightly from last month (3.7%). The government CPI measure of food inflation continues to gradually drop and level out while consumer food inflation estimates and expectations have remained relatively consistent over the past three months after a drop between November and December. Recent attention to food prices in the media along with a 5.0% forecasted FAFH price increase from the USDA may be hindering consumer optimism.[4]

Figure 5. Weekly Household Food Expenditures, Jan. 2022 - Feb. 2024

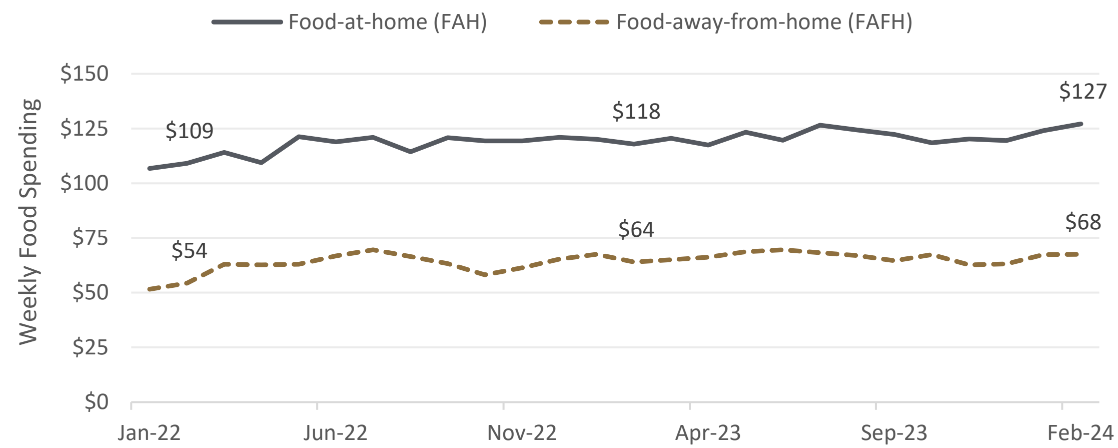
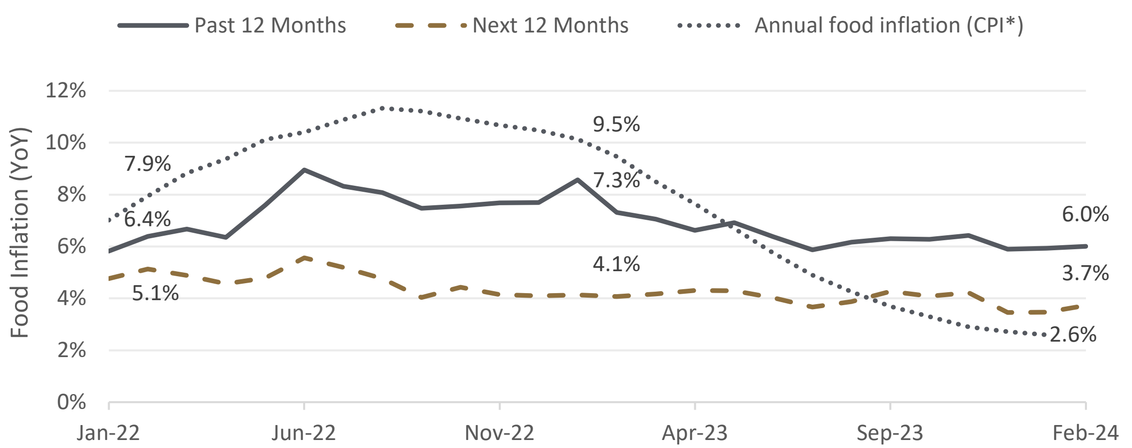


Figure 6. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Feb. 2024



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

FOOD EXPENDITURES

How much are American households spending on their food?

Persistent food inflation, particularly for FAFH (5.1% YoY from Jan. 2023 to Jan. 2024), has led to a slight downward trend in reported weekly FAFH meals since we began measuring FAFH meal frequency in March 2022. Consumers seem to be eating out less as the price of doing so increases. There is not an apparent difference in the frequency of eating out based on whether or not consumers are optimistic or pessimistic about future food inflation (**Figure 7**).

The FAH share of weekly household food spending is 1.2% higher among those who predict food prices to rise compared to those who predict food prices to fall. Consumers who spend slightly more on groceries per week tend to expect higher food prices in the future, on average (**Figure 8**). While FAH spending as a share of total food spending is only slightly different, the average dollar difference in FAH spending is $9/week. Consumers who spend more on groceries may be more in tune with rising food prices.

Figure 7. Average Weekly FAFH Meals by Food Price Expectations, Mar. 2022 - Feb. 2024

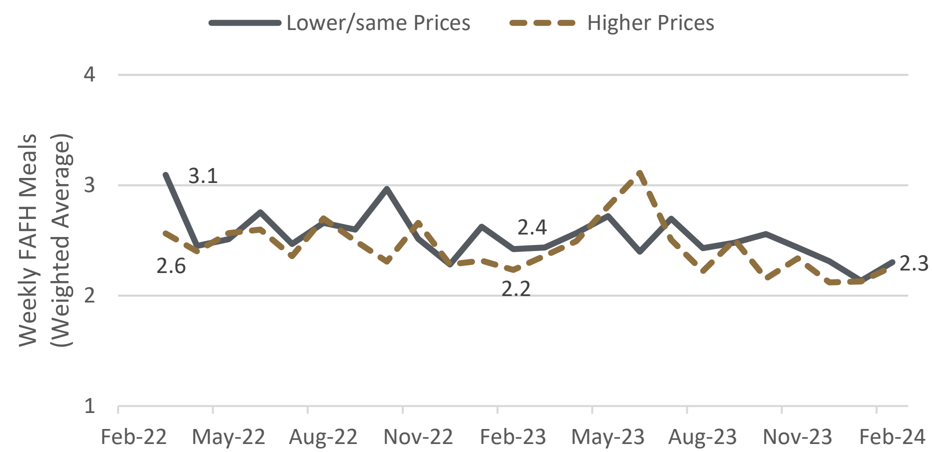
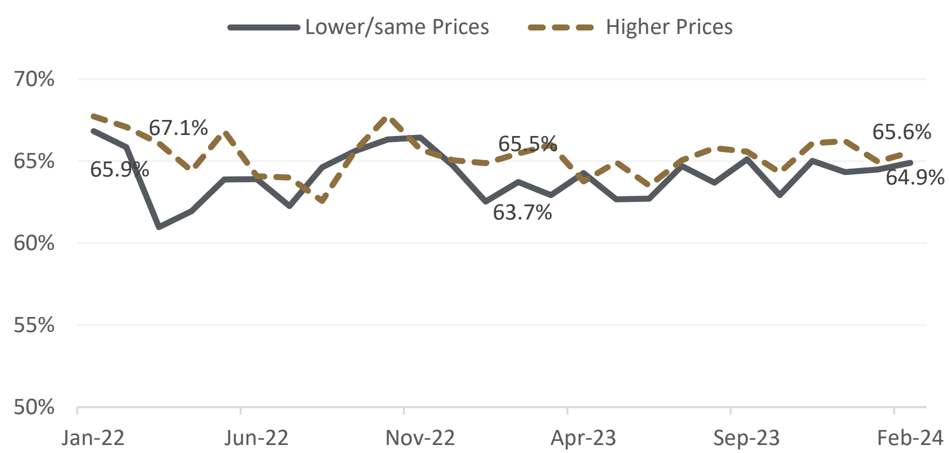


Figure 8. Food-at-home (FAH) Share of Weekly Food Expenditures by Food Price Expectations, Jan. 2022 - Feb. 2024



FOOD SECURITY

Which Americans are having trouble buying food for their families?

Based on a set of six standard questions about food purchased and eaten in the past 30 days, we estimate national food insecurity to be about 12.4%, down 0.8 percentage points from January.[5] This rate remains below the 2023 (14%) and 2022 (15%) average food insecurity rates (**Figure 10**). Food insecurity has consistently hovered around 13% since September 2023.

Figure 11 reveals an interesting difference between households receiving Supplemental Nutrition Assistance Program (SNAP) benefits and non-SNAP households. Consumers receiving SNAP benefits appear to be slightly more optimistic about future food prices than those who do not receive SNAP benefits. The data for this figure are aggregated for all 26 months of CFI data.

Figure 10. Rate of Household Food Insecurity in the Last 30 Days, Jan. 2022 - Feb. 2024

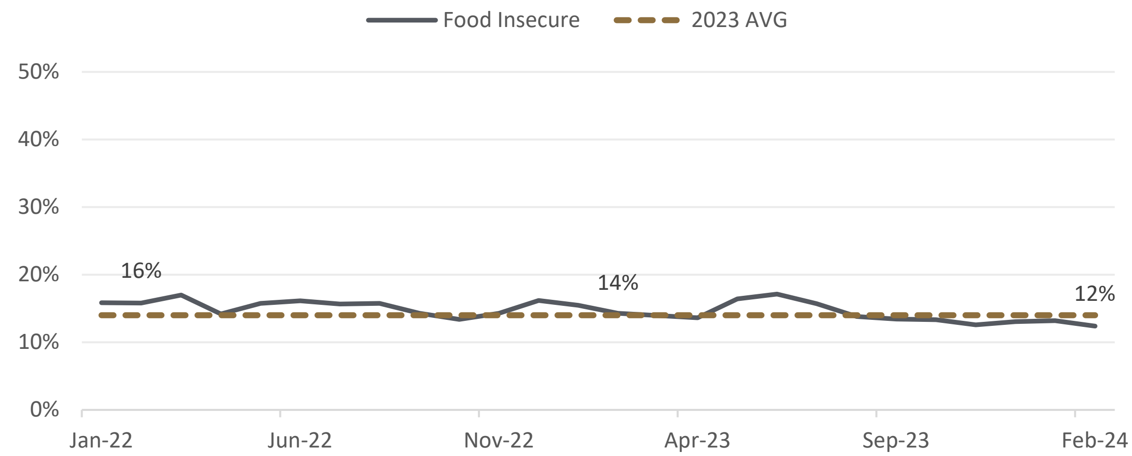
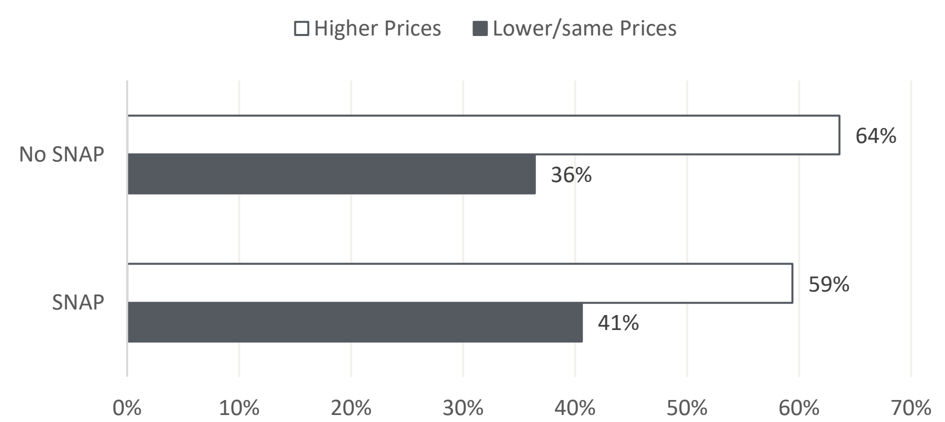


Figure 11. Food Price Expectations by SNAP Participation, Jan. 2022 - Feb. 2024



CONSUMER BEHAVIORS

How are Americans navigating their food environment?

We present consumers with common shopping and eating habits to see how frequently the statement applied to them in the last 30 days (**Figure 12**). We see some behavioral differences in the frequency that people choose to buy certain types of food at the store when disaggregating by consumers' expectations for food prices over the next 12 months. When it comes to non-conventional items commonly sold at a higher price point, such as wild-caught fish, grass-fed beef, cage-free eggs, organic foods and plant-based proteins, those expecting higher food prices in the future report choosing these items less frequently. Those expecting higher food prices may be more inclined to save now to prepare for tomorrow's prices.

Consumers who predicted higher prices also tend to take less risks when it comes to their consumption of risky foods, like unwashed, undercooked foods or raw dough. This risk aversion is further highlighted in **Figure 11**.

Figure 12. Frequency of Consumer Shopping and Eating Habits: Aggregate and by BMI Group, Jan. 2022 - Jan. 2024

	Lower/same Prices	Higher Prices
Chose generic foods over brand-name foods	3.2	3.3
Chose local foods over non-local foods	3.1	3.0
Chose wild-caught fish over farm-raised fish	3.0	2.9
Chose grass-fed beef over conventional beef	3.0	2.8
Chose cage-free eggs over conventional eggs	2.9	2.7
Chose organic foods over non-organic foods	2.9	2.6
Chose plant-based proteins over animal proteins	2.6	2.3
Checked the Use-By/sell-by date at the store	3.9	4.1
Checked the nutrition label before buying new foods	3.4	3.4
Checked for natural or clean labels	3.1	2.9
Checked where my food originated	3.0	2.8
Checked for food recalls	2.9	2.8
Checked for GMO ingredients	2.9	2.7
Checked how my food was produced	2.9	2.7
Took steps to reduce food waste at home	3.7	3.8
Recycled food packaging	3.5	3.5
Threw away food past the Use-By date	3.3	3.2
Composted food scraps	2.5	2.3
Ate fruits and vegetables without washing them	2.4	2.1
Ate rare or undercooked meat	2.1	1.8
Ate raw dough or batter	2.1	1.8

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

Jan. 2022 - Feb. 2024

CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Figure 13 shows that a larger proportion of those who are most willing to take risks also indicated they believe food prices will be higher in the coming year, relative to those who placed themselves lower on the risk scale. Consumers who are less willing to take risks might try to mitigate future financial risk when it comes to food purchases by planning for higher prices relative to consumers who are more risk-loving. Regardless of risk attitudes, the majority of consumers predicted food prices to increase in some capacity, which is unsurprising given inflation rates over in the past two years.

A recent report released by the USDA forecasts a 5.0% increase in FAFH prices relative to a 1.6% forecasted increase in FAH prices in 2024. This forecast comes after FAFH prices rose faster compared to FAH prices between March 2023 and January 2024.[6] Consumers worried about higher food prices may be opting to eat out less and cooking more meals at home, as **Figure 14** shows. Those expecting higher food prices in the future tend to eat out less frequently.

Figure 13. Food Price Expectations by General Risk Attitudes, Jan. 2023 - Feb. 2024

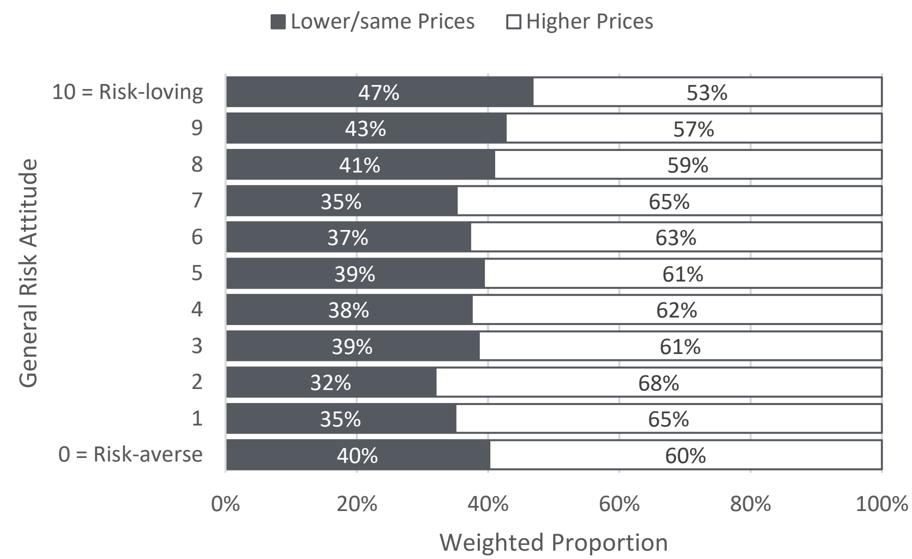
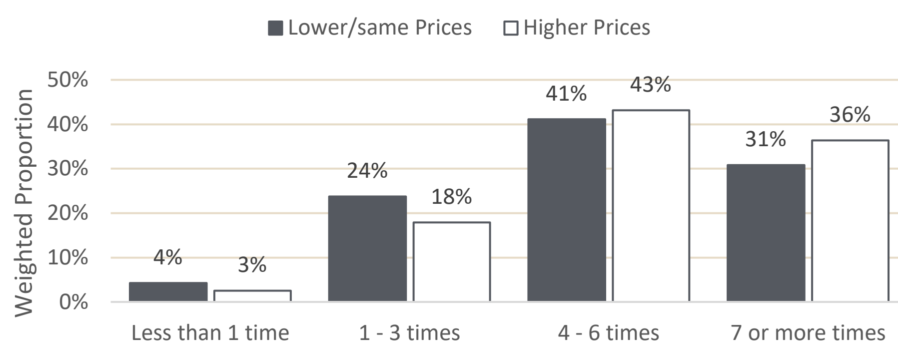


Figure 14. Household Home-cooked Meals Per Week by Food Price Expectaions, Jan. 2022 - Feb. 2024

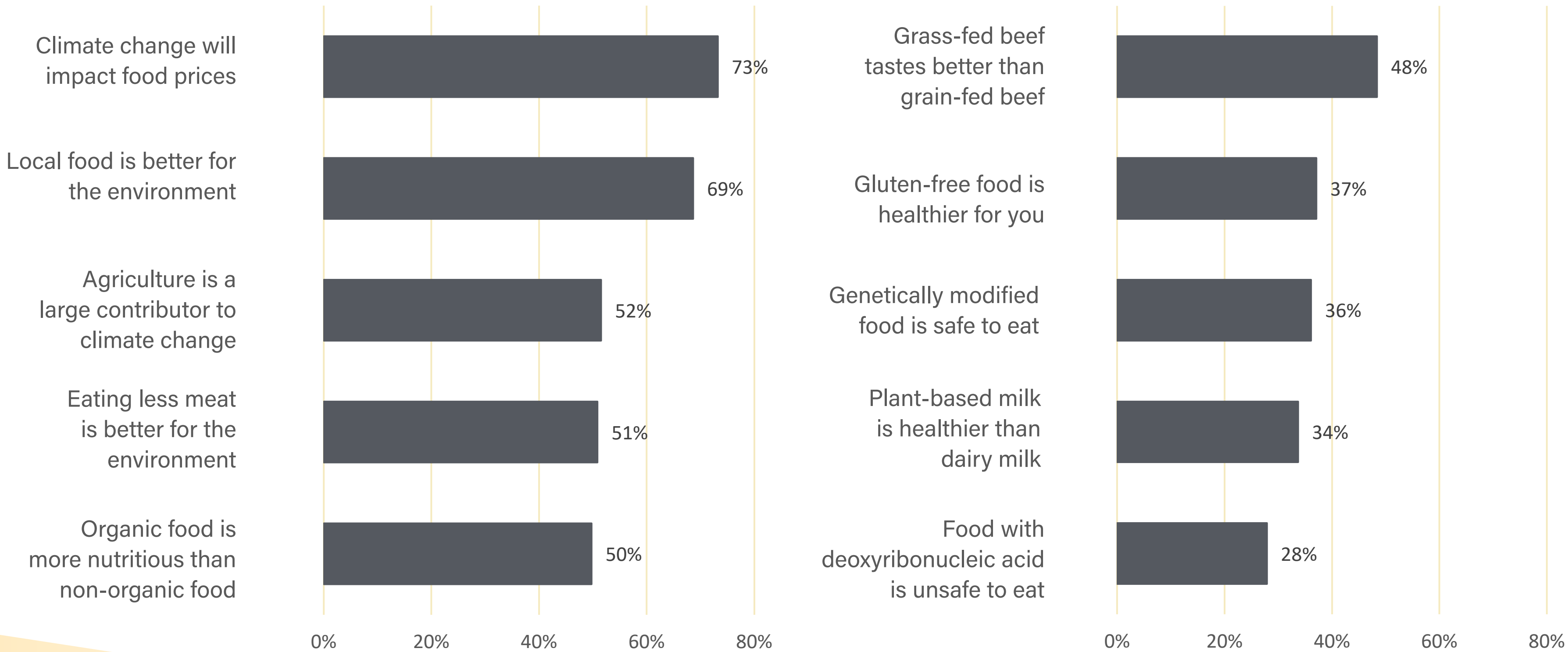


CONSUMER BELIEFS

What do Americans believe about their food and food system?

In **Figure 15**, we measure agreement with statements about food and nutrition in February. We see that the majority of consumers believe climate change will impact food prices (73%). Similarly, most consumers agree that local food is better for the environment (69%). When it comes to statements about the health benefits of non-conventional food items (e.g., gluten-free food or plant-based milk), fewer consumers are in agreement. Consumer beliefs have remained relatively consistent over time.

Figure 15. Share of Consumers who *'Somewhat Agree'* or *'Strongly Agree'* with Claims about Food and Nutrition, Feb. 2024



CONSUMER TRUST

Who do Americans trust on topics of food?

Respondents select their most trusted and least trusted sources of information about healthy and sustainable food.[7] Given the presence of inflation in many political discussions, we focus on consumer trust in two media sources that commonly clash on partisan issues - CNN and Fox News. **Figure 16** summarizes consumer trust in CNN and Fox News as sources of food-related information by food price expectations. **Figure 17** further explores this pattern by breaking down food price expectations by self-reported political affiliation.

Of the share of consumers who chose CNN as a trusted source of food-related information, 53% expect food prices to increase while 67% of those who chose Fox News as a trusted source of food-related information expect the same.

A larger share of self-identified republicans predicted higher food prices relative to self-identified democrats, which may be influenced by the political affiliation of the current presidential administration. Democratic consumers may be slightly more optimistic about food prices under an administration they support. The majority of consumers have predicted higher food prices when looking at the results from all 26 months of the survey, regardless of political affiliation.

Figure 16. Food Price Expectations by Trust in Media Outlets, Jan. 2022 - Feb. 2024

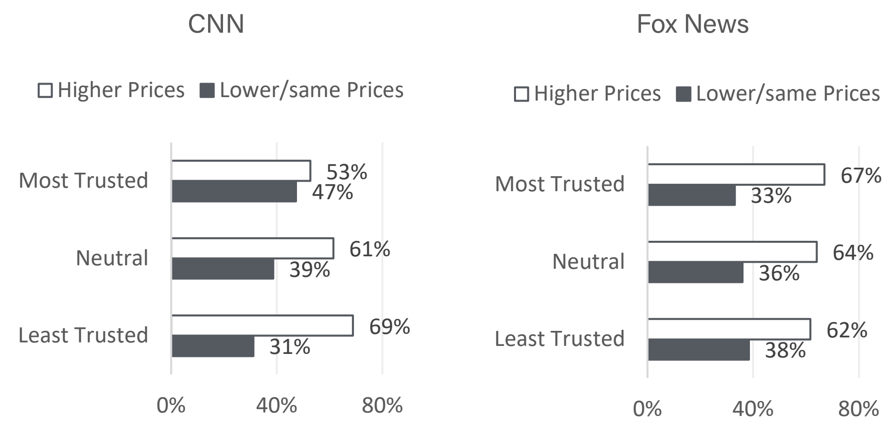
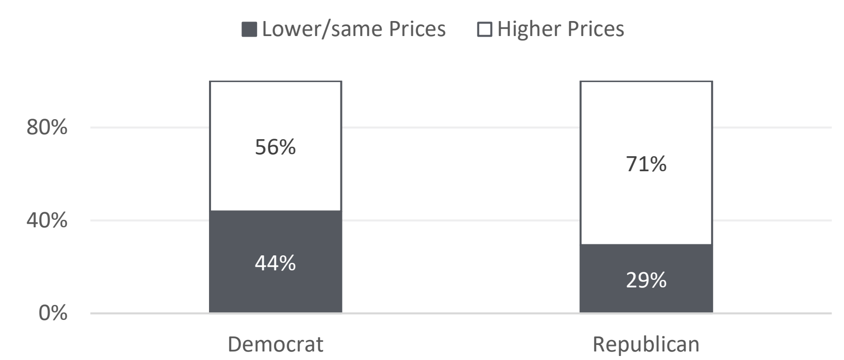


Figure 17. Food Price Expectations by Self-identified Political Affiliation, Jan. 2022 - Feb. 2024



ENDNOTES

1 Data were collected from an online panel maintained by the company Dynata over a five-day period from February 15-19, 2024. 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. Population proportions have been updated to reflect the most recent complete year of ACS Census data (2022). Every respondent from the previous month was re-contacted and asked to take the survey again. About 50% of January 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 size Jan. 2022 - Feb. 2024:	Lower/same Prices (n=11,792); Higher Prices (n=20,768)
	Sample size Jan. 2022 - Dec. 2022:	Lower/same Prices (n= 5,025); Higher Prices (n= 9,952)
	Sample size Jan. 2023 - Dec. 2023:	Lower/same Prices (n=5,847); Higher Prices (n=9,274)
	Sample size Jan. 2024 - Feb. 2024:	Lower/same Prices (n=910); Higher Prices (n=1,542)

3 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.

4 U.S. Department of Agriculture, Economic Research Service. (2024, January). *Summary Findings Food Price Outlook, 2024* https://www.ers.usda.gov/data-products/food-price-outlook/summary-findings/

5 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

ENDNOTES

intake. Very low food security (i.e., food insecure): 5-6 reported indications of disrupted eating patterns, changes in diet, and reduced food intake.

6 View CFDAS's food price dashboard to explore more: https://ag.purdue.edu/cfdas/resource-library/changes-in-u-s-food-prices/

7 Trust questions were not fielded in the Consumer Food Insights survey from October 2022 - December 2022. The sample for this response summary spans Jan. 2022 - Dec. 2023.