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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.

In this issue, we analyze the CFI results according to annual household income categories: *less than $50,000*; *$50,000 - $100,000*; and *more than $100,000*. We compare responses between these groups over the last 21 months of data collection (January 2022 - September 2023) to assess whether households at different income levels have changed their food behaviors over time.[2] Other questions included in this month's survey asked respondents to choose between brand-name and generic or store-brand foods for different food categories and different discount levels. Additional questions explored consumer beliefs about brand-name vs. generic or store-brand foods.

KEY INSIGHTS FROM SEPTEMBER

- Branding is particularly important for beverages, with most consumers preferring brand-name beverages over generic alternatives.
- Branding is less important for produce items such as fresh fruits and vegetables and fresh meat.
- Consumers are sensitive to changes in price when picking between brand-name and generic-brand snack foods.
- Beliefs about branded foods tasting better than generic or store-brand foods correlates with the decision to buy brand vs. generic.
- Many consumers believe there is little difference between brand-name and store-brand for fresh meats and fruits and vegetables.
- Households making less than $50,000 were more price sensitive when presented with two generic or store-brand discounts.
- The consumer food inflation estimate (6.3%) continues to diverge from the government CPI measure of food inflation (4.3%).

SFP INDEX
68/100

FOOD INSECURITY
13%

FOOD SPENDING
$187/WEEK

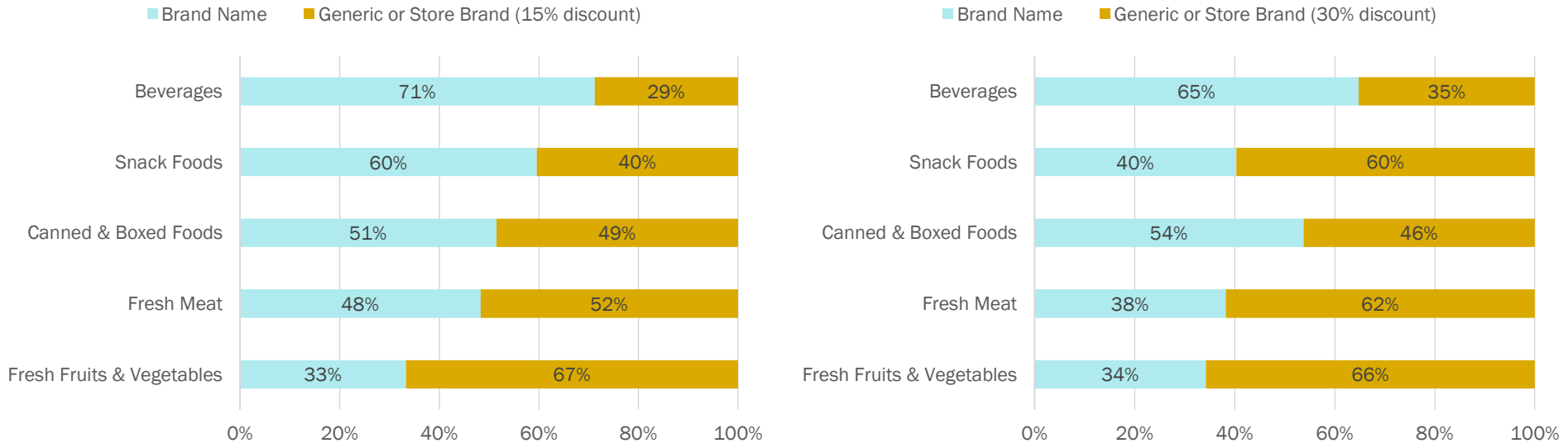
GROCERY STOCKOUTS
9%

BRAND BELIEFS

How do consumers choose between brand-name and generic or store-brand foods?

Additional questions this month looked at differences in brand purchasing behavior and brand beliefs for five food categories: (1) beverages (2) fresh fruits and vegetables (3) fresh meat (4) shelf stables (i.e., canned and boxed foods) and (5) snack foods. **Figure 1** shows how the choice between brand-name foods and generic or store-brand (e.g., Great Value, Kirkland) foods varies by food category for two different price discounts. More consumers chose brand-name beverages over generic or store-brand beverages regardless of the discount size. However, more consumers chose generic or store-brand over brand-named fresh fruit and vegetables. Interestingly, the decision between brand-name and generic or store-brand snack foods flipped when respondents were presented with a larger discount, with more consumers choosing generic or store-brand snacks.

Figure 1. Brand-name vs. Generic or Store-brand Choices by Food Category and Price Discount, Sept. 2023

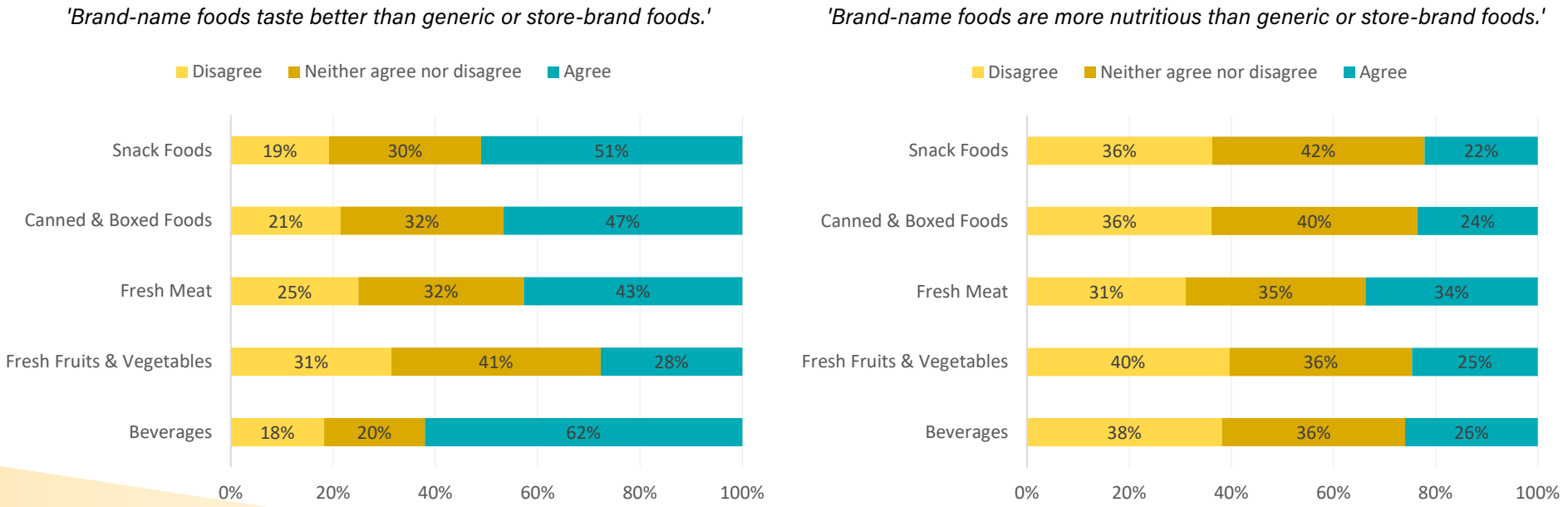


BRAND BELIEFS

What do consumers believe about brand-name foods?

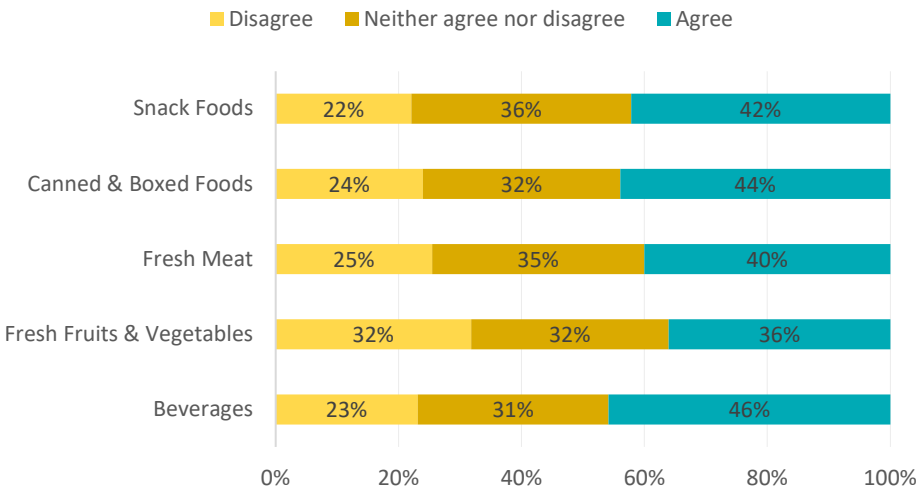
In addition to brand purchasing decisions, we also revealed respondents' beliefs about different food attributes in the context of brand-name versus generic or store-brand foods. The attributes are: (1) taste (2) nutrition (3) ingredient quality (4) food safety and (5) same (i.e., no difference). The level of agreement with the statement about brand-name foods tasting better than generic or store-brand foods differed between beverages and the other food types, with a majority of respondents agreeing with the statement (**Figure 2**). Statements about brand-name food nutrition, quality and safety being better than generic or store-brand food saw fewer differences in the distribution of responses between food categories. Nutrition appears unimportant for brands. A sizeable portion of consumers believe brand-name meat is safer than generic alternatives. Unsurprisingly, the majority of respondents agreed with the statement that brand-name fresh meat and fresh fruits and vegetables are the same as generic or store-brand fresh meat and fresh fruits and vegetables.

Figure 2. Brand Beliefs by Food Category, Sept. 2023

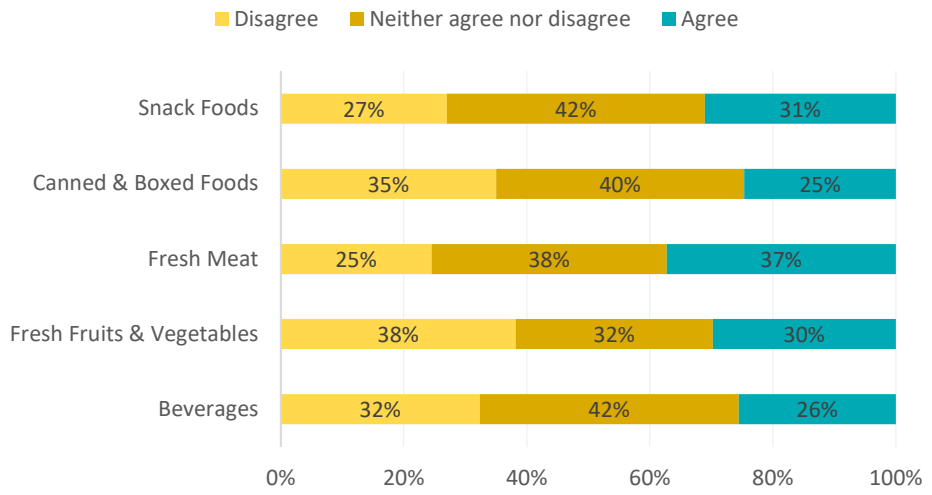


BRAND BELIEFS

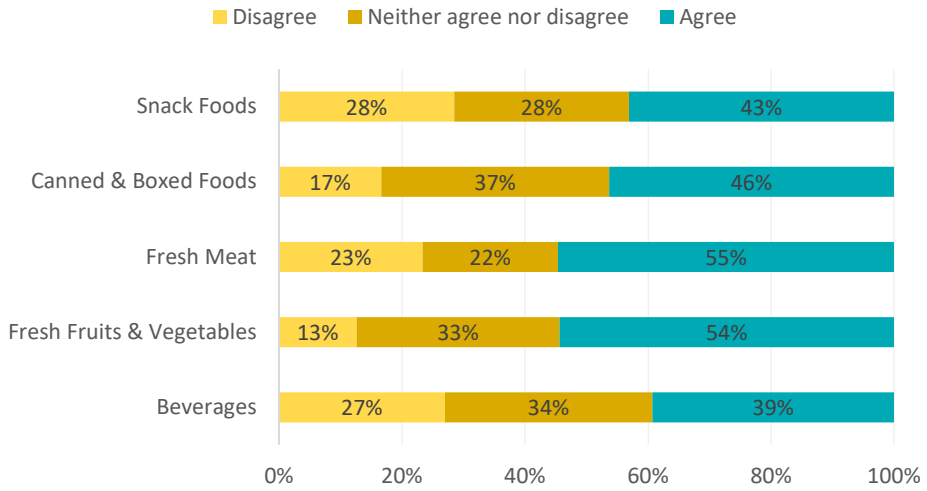
'Brand-name foods use higher quality ingredients than generic or store-brand foods.'



'Brand-name foods are safer than generic or store-brand foods.'



'Brand-name foods are the same as generic or store-brand foods.'

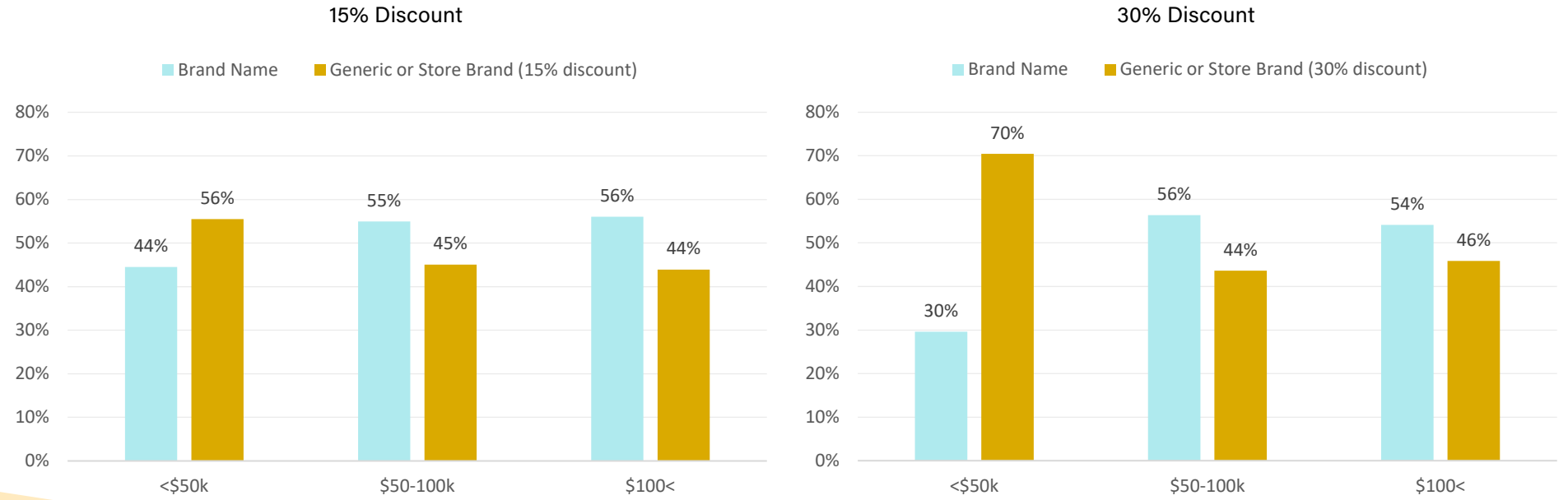


BRAND BELIEFS

How do consumers with different incomes choose between brand-name and generic or store-brand foods?

Given the importance of affordable food options to lower-income households (see **Figure 5**), we further compare brand-name versus discounted generic or store-brand food choices by income. **Figure 3** reveals an unsurprising jump in the proportion of those who choose more expensive brand-name over generic or store-brand foods from the lowest-income group to the higher-income groups. However, there is little difference in the choices among households that make more than $50,000. Noteably, the average proportion of those who would choose brand-name over generic or store-brands drastically changes among those making less than $50,000 when the generic-brand discount increases from 15% to 30%. This result suggests lower-income groups are more sensitive to changes in food prices (price elastic).

Figure 3. Brand-name vs. Generic or Store-brand Choices by Income and Price Discount, Sept. 2023

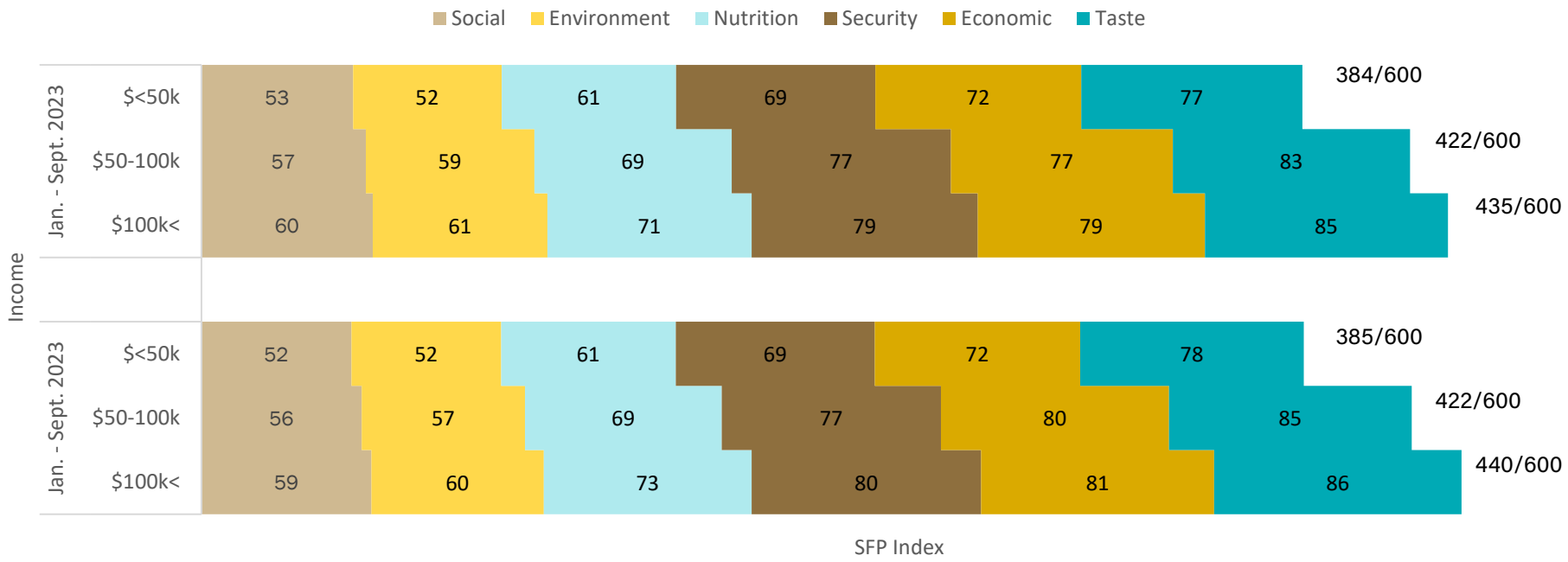


SUSTAINABLE DIETS

Are Americans making sustainable food purchasing decisions?

The Sustainable Food Purchasing (SFP) Index[3] has remained stable over the past 21 months but scores vary depending on consumers' annual household incomes (**Figure 4**). Across most sub-indicators, the highest-income households (more than $100,000) have nearly a 10-point advantage over the lowest-income households (less than $50,000). Those with a household income of $50,000 - $100,000 tend to score closer to the highest than the lowest-income households, though there is not a single indicator or time period where these middle income consumers score the same or higher than the highest-income consumers. These differences have remained relatively consistent with the results from the same time period last year.

Figure 4. Sustainable Food Purchasing Index by Annual Household Income, Jan. 2022 - Sept. 2023

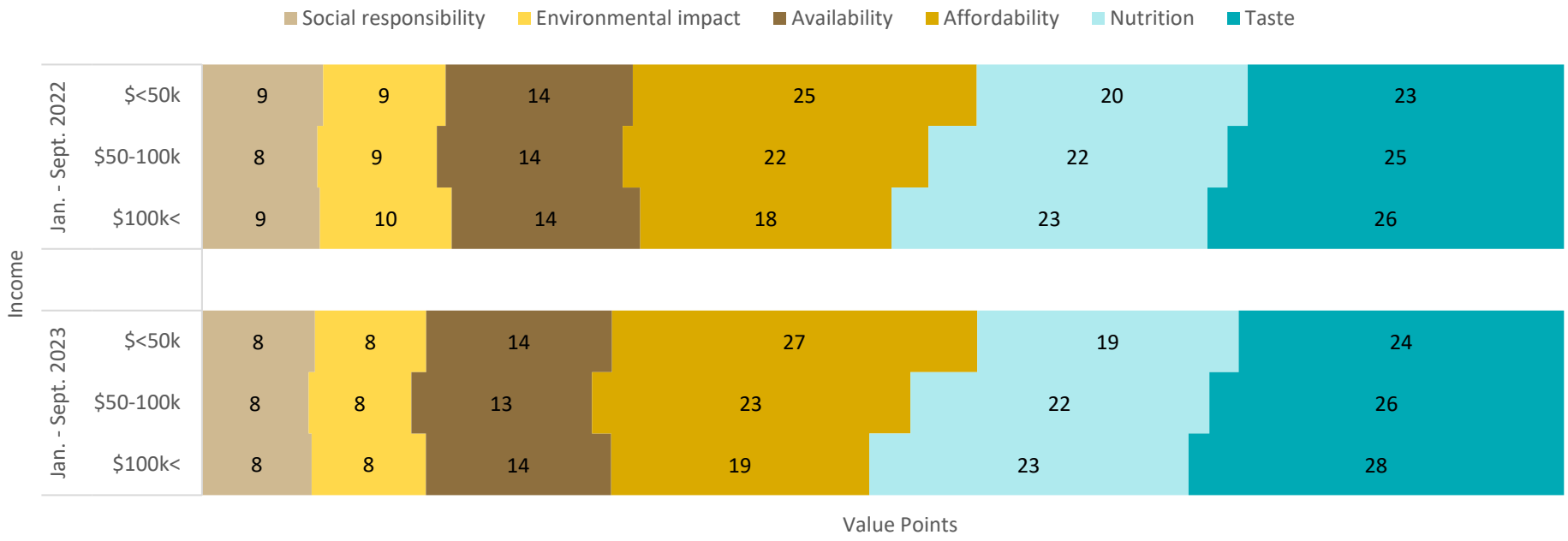


FOOD VALUES

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. However, the annual household income of a consumer appears to correlate with some of their food values (**Figure 5**). Consumers with higher-incomes value the taste and nutrition of their food more. Conversely, consumers with lower-incomes value the affordability of their food to a greater degree. Consumers' valuation of social responsibility, environmental impact,or availability of their food does not vary much as income changes.

Figure 5. Share of 100 Points Allocated to Food Attributes by Per Person Weekly Food Spending, Jan. 2022 - Sept. 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 6**). On average, consumers are spending about $122/week on groceries (FAH) and $65/week on restaurants and other carryout (FAFH).[4] FAFH spending has decreased since June which may be a result of FAFH inflation cooling at a slower rate than FAH inflation, meaning a dollar goes further for consumers at the grocery store than it does at restaurants.

The consumer estimate of annual food inflation was 6.3%, close to the August estimate (6.2%) (**Figure 7**). Once again, this estimate is above the government CPI measure of food inflation (4.3%) which continues to decrease. It will be interesting to see if the consumer estimate and the CPI continue to diverge in the coming months. Consumers' inflation prediction from Sept. 2022 (4.0%) was close to the actual government measure of food inflation (4.3%). Consumers predict future food inflation to remain around 4.3%.

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

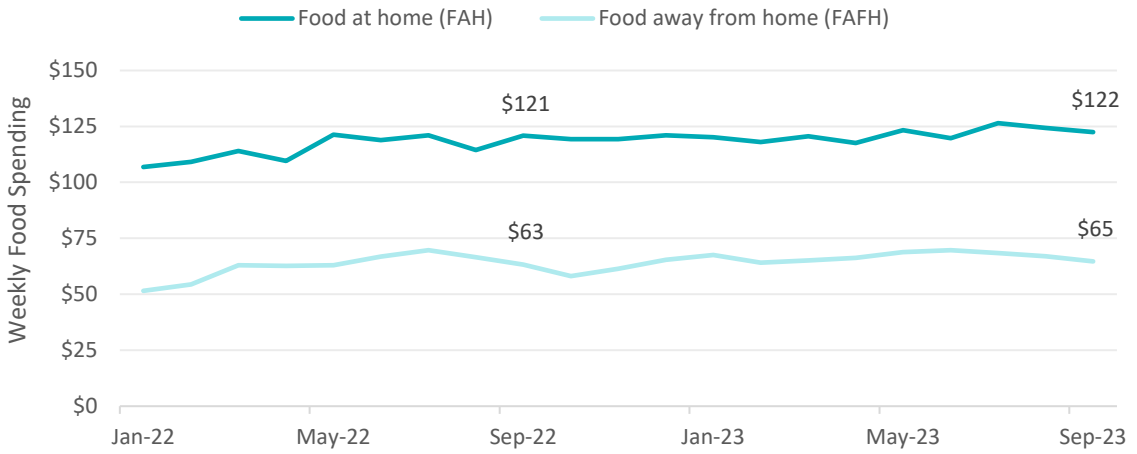
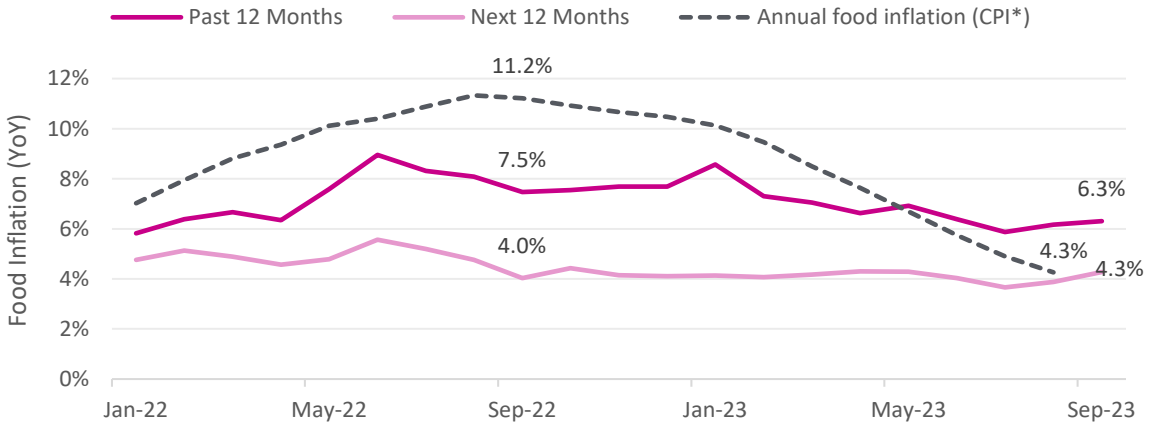


Figure 7. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Sept. 2023



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

FOOD EXPENDITURES

How do low and high-income households differ in their food spending?

Unsurprisingly, higher-income households spend more on food. **Figure 8** shows that households who make more than $100,000 annually continue to spend nearly $40 more per week on groceries than those who make less than $50,000 annually. FAH spending has remained relatively unchanged from last September among all income groups.

Similarly, the difference in FAFH spending between the highest and lowest earners is significant, though the highest-income earners are now spending less on FAFH compared to last September (**Figure 9**). FAFH spending among $50-100k earners, who make up about one-third of the survey sample, has increased by about $14 since last September.

Interestingly, overall food spending, regardless of income, has not increased at the same rate as the government's estimate of food inflation over the past 12 months (1.6% increase vs. 4.3% food inflation). This may suggest consumers are purchasing less food or opting to buy cheaper food items than a year ago.

Figure 8. Weekly Household FAH Expenditures by Annual Household Income, Jan. 2022 - Sept. 2023

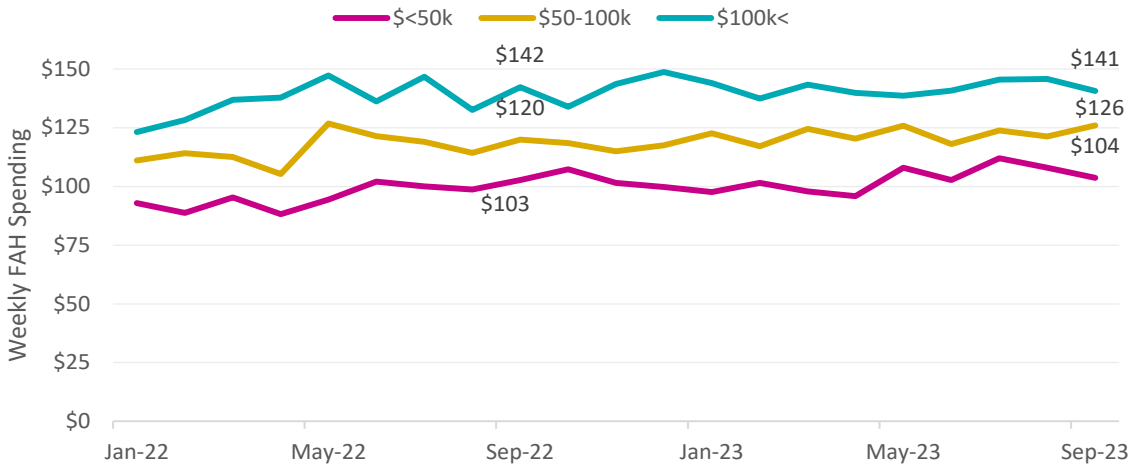
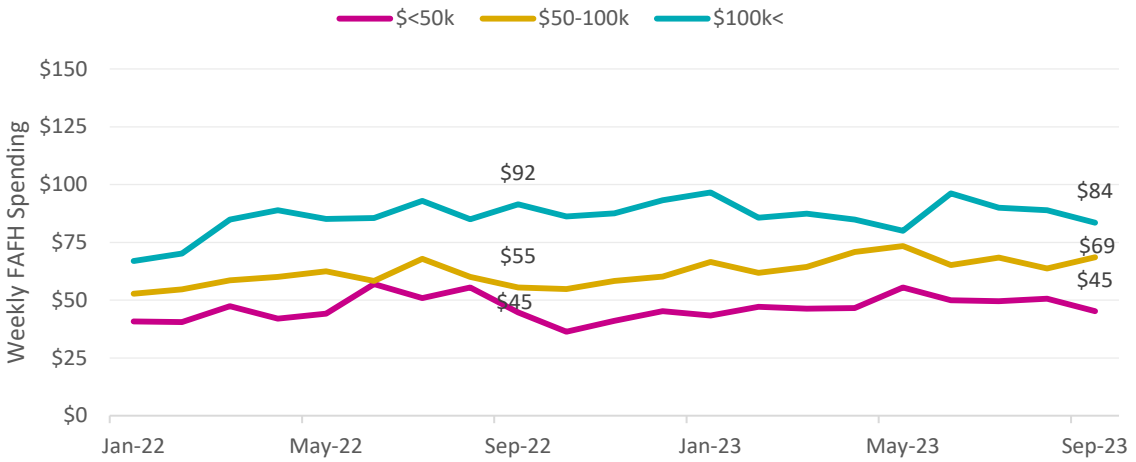


Figure 9. Weekly Household FAFH Expenditures by Annual Household Income, Jan. 2022 - Sept. 2023



FOOD SECURITY

Which Americans are having trouble buying food for their families?

Based on a set of six standard questions[5] about food purchased and eaten in the in the past 30 days, we estimate national food insecurity to be about 13.4%. This rate remains below the 2022 average (15%) and is a slight improvement from last month (**Figure 10**). Unsurprisingly, most food insecure households are making less than $50,000 annually, showing the importance of affordable food options for lower-income groups (**Figure 11**).

In **Figure 12** we see that a range of households have forgone groceries and eating out because they are waiting on their paycheck. In addition, **Figure 13** reveals that a sizeable portion of households making more than $50,000 annually rely on food assistance to fill gaps in their spending, which is likely helping to keep the rate of insecurity down. Moreover, around 35% of households making less than $50,000 annually are food insecure while about 26% of these households have received free food or SNAP benefits, indicating that there are likely many households eligible for assistance who are not receiving it.

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

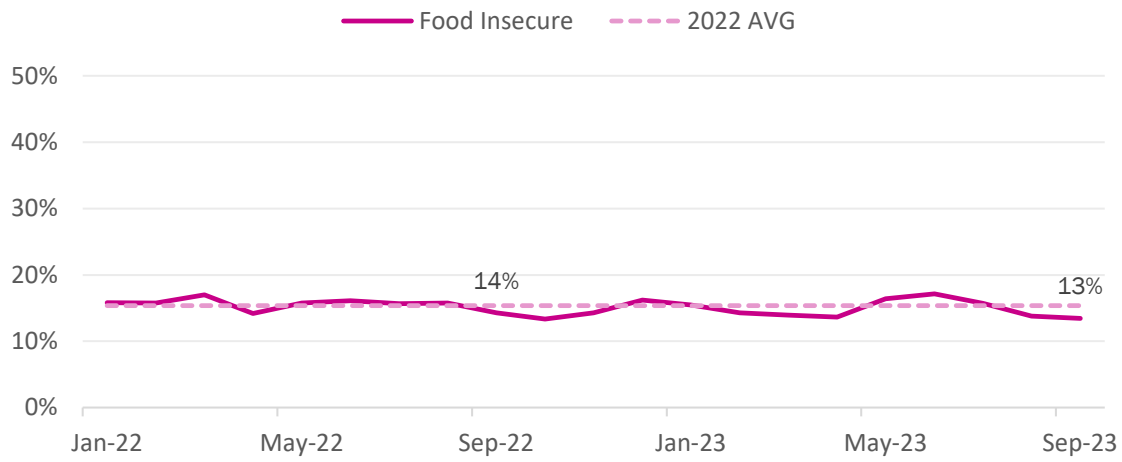
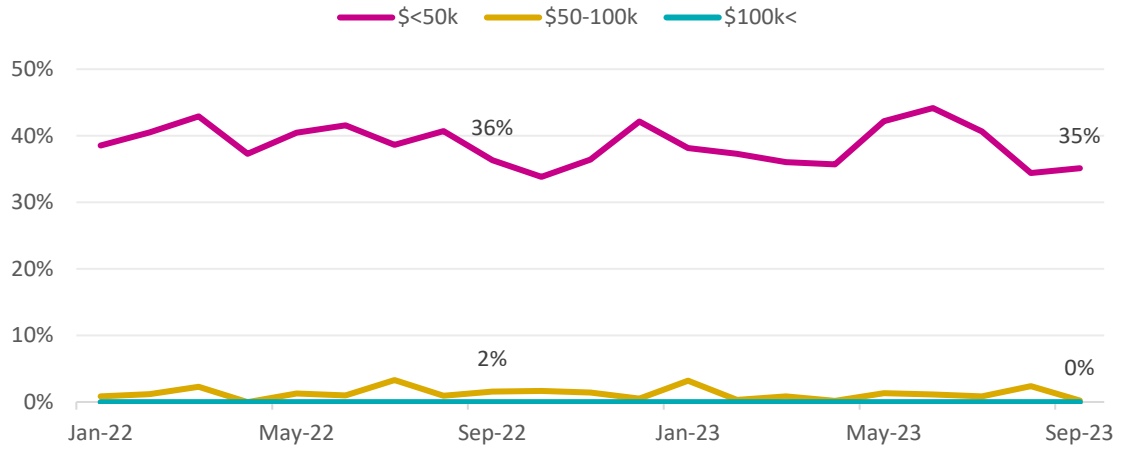
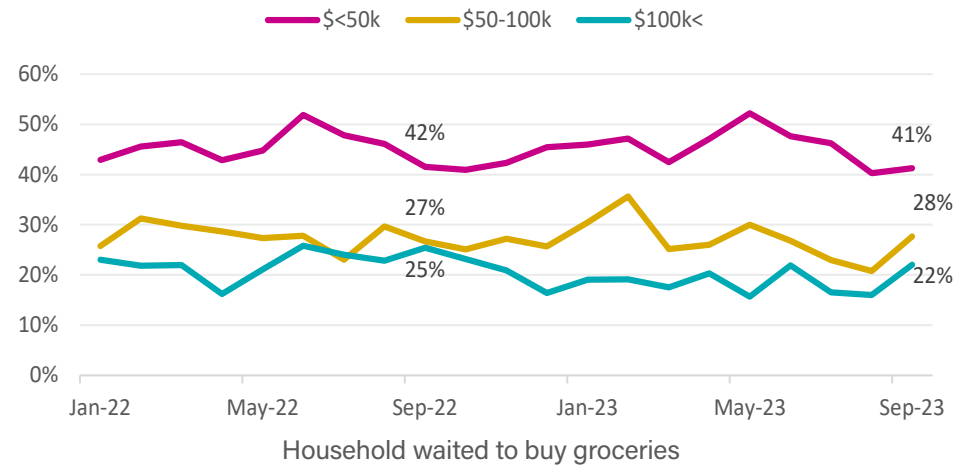


Figure 11. Rate of Household Food Insecurity in Last 30 Days by Income, Jan. 2022 - Sept. 2023

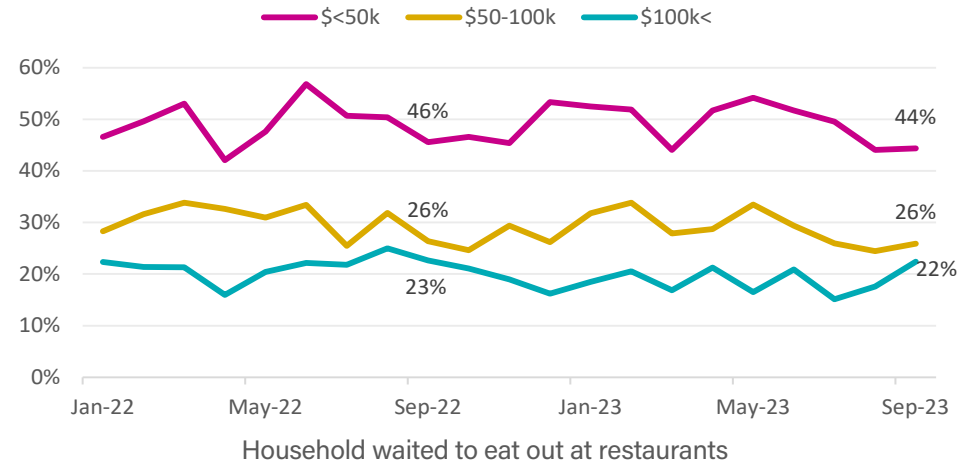


FOOD SECURITY

Figure 12. Rate of Households Waiting on Next Paycheck to Buy Groceries and Dine Out by Annual Household Income, Jan. 2022 - Sept. 2023

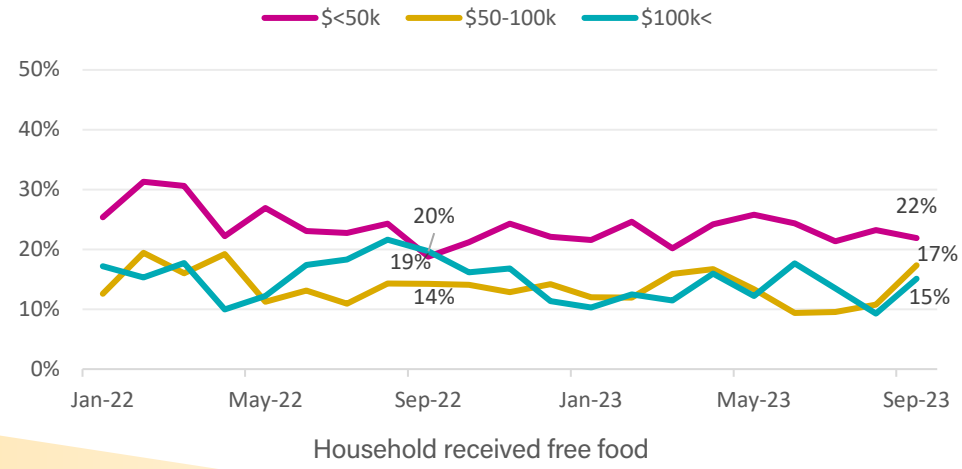


Household waited to buy groceries

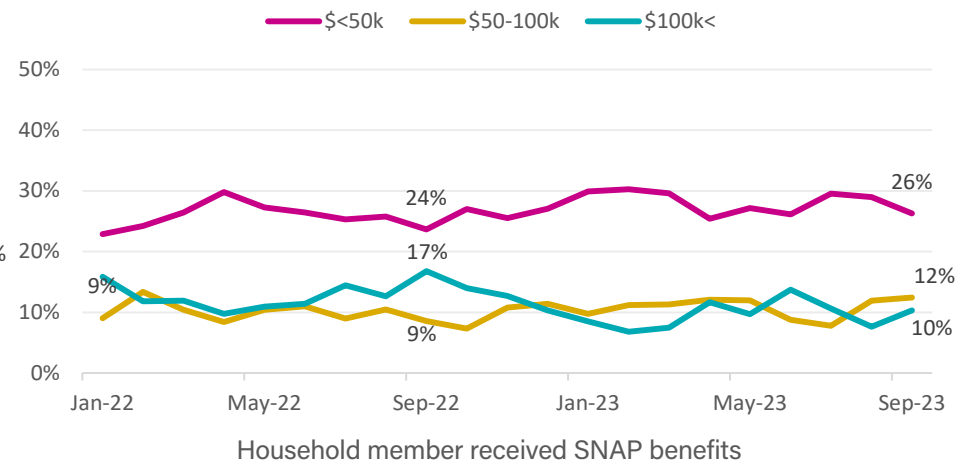


Household waited to eat out at restaurants

Figure 13. Rate of Households Receiving Free Food and SNAP Benefits by Annual Household Income, Jan. 2022 - Sept. 2023



Household received free food



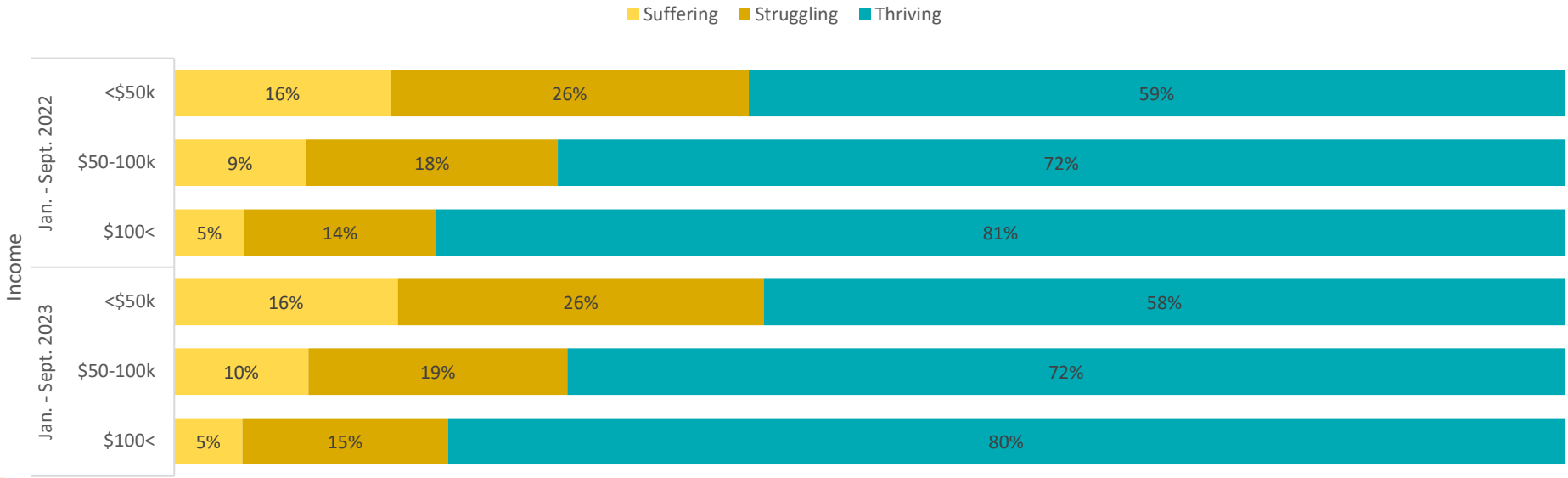
Household member received SNAP benefits

FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents score their own diet on a 0-10 scale, with top of that scale representing their ideal diet.[6] Scores are categorized as thriving (7-10), struggling (5-6) or suffering (0-4). A significant majority of Americans (68%) continue to report thriving on this Diet Well-Being Index. Additionally, **Figure 14** reveals that consumer diet well-being has a strong correlation to income level. Specifically, there is an over 20 percentage-point gap between the share of high-income and low-income consumers who are thriving in 2023. This result remains consistent with what was found in 2022. **Figure 15** summarizes how happy respondents are with their diets. We see a similar near 20 percentage-pont gap among those who are 'very happy' with their diets that is consistent over time. This gap remains unchanged when considering those who are 'very happy' with their lives (**Figure 16**). Regardless of income, the majority of consumers remain happy with their diets and lives.

Figure 14. Diet Well-Being Index (0-10 Scale) by Annual Household Income, Jan. 2022 - Sept. 2023



FOOD SATISFACTION

Figure 15. Rate of Consumer Diet Happiness by Annual Household Income, Jan. 2022 - Sept. 2023

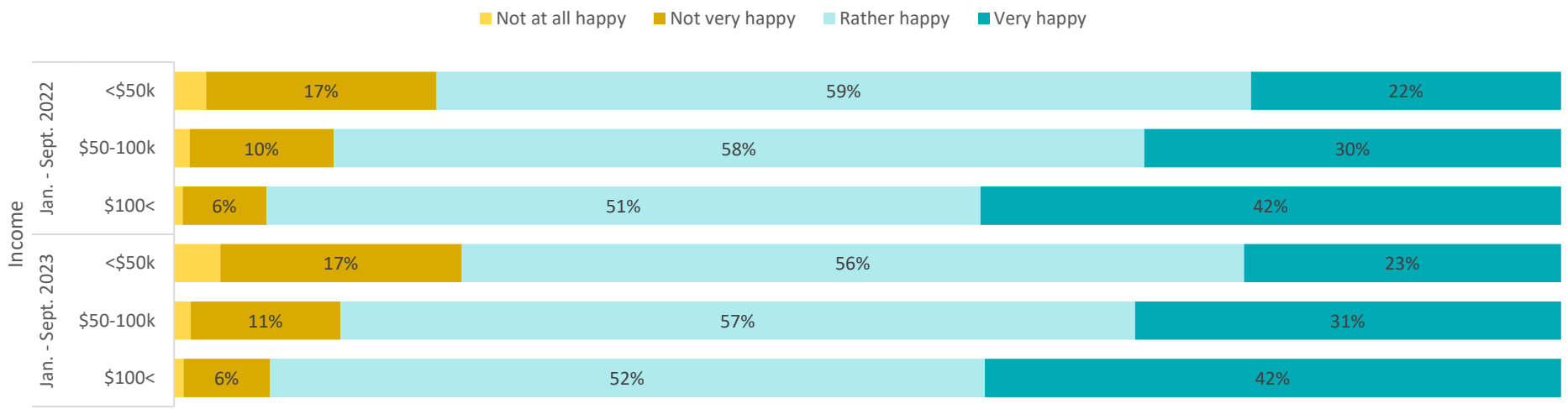
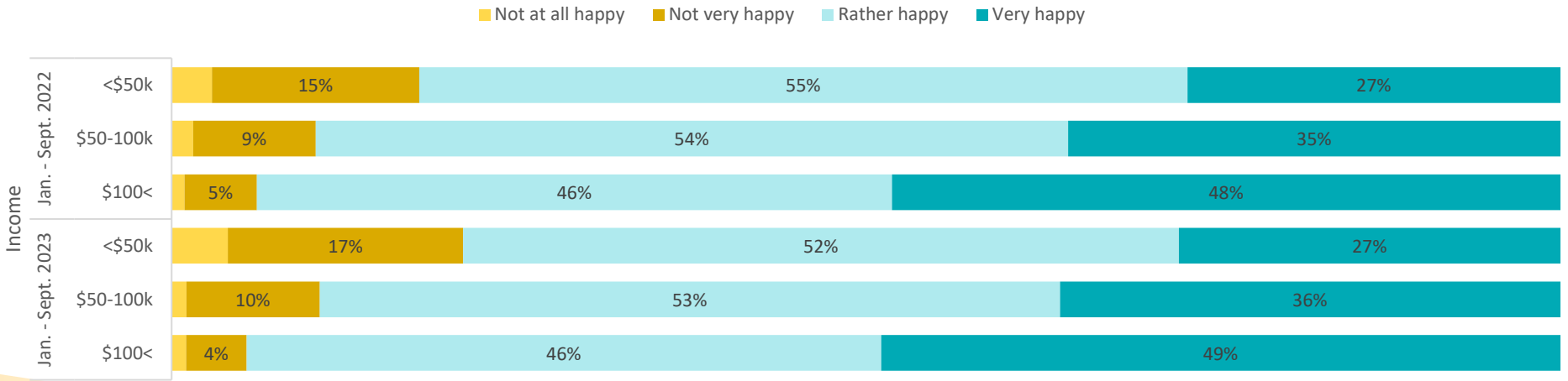


Figure 16. Rate of Consumer Life Happiness by Annual Household Income, Jan. 2022 - Sept. 2023



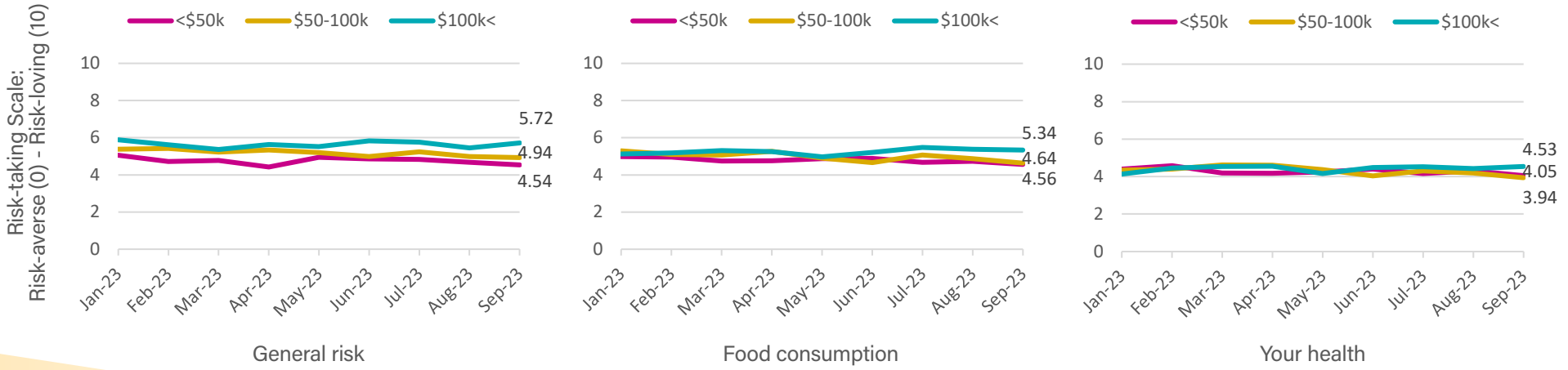
CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Consumers describe their willingness to take risks on a 0 (risk-averse) to 10 (risk-loving) scale (**Figure 17**). With regards to general risk, consumers in higher-income households are slightly more willing to take risks. This gap in risk-taking closes when we gather risk attitudes toward food consumption. The higher-income consumers become more risk-averse, while the lowest-income consumers scored similarly on the risk-taking scale. For every household income group, consumers are also most risk-averse concerning their health.

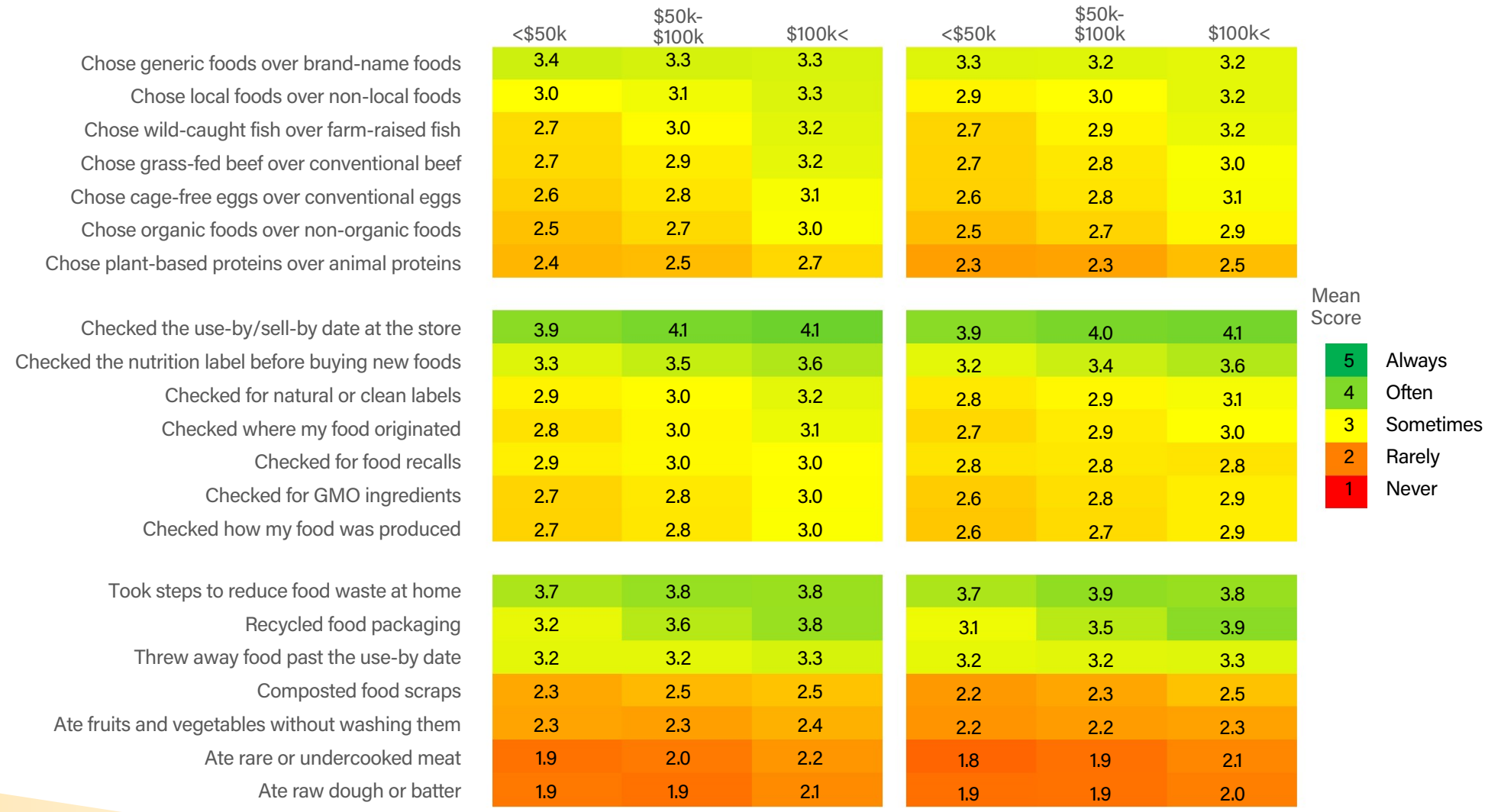
Interestingly, households with incomes greater than $100,000 reported eating rare or undercooked meat more frequently than other households (**Figure 18**). Income also appears to correlate with how often consumers purchase foods commonly viewed as ethical or sustainable, such as wild-caught fish, grass-fed beef, cage-free eggs or organic foods. Many of these products typically carry a price premium. Higher-income households also reported checking food labels more frequently than lower-income households. Behaviors that were similar across all income groups include checking use-by dates, checking for food recalls and throwing out food past the use-by date.

Figure 17. Self-Reported Attitudes Toward Risk by Annual Household Income, Jan. 2022 - Sept. 2023



CONSUMER BEHAVIORS

Figure 18. Frequency of Consumer Shopping and Eating Habits by Annual Household Income, Jan. 2022 - Sept. 2023

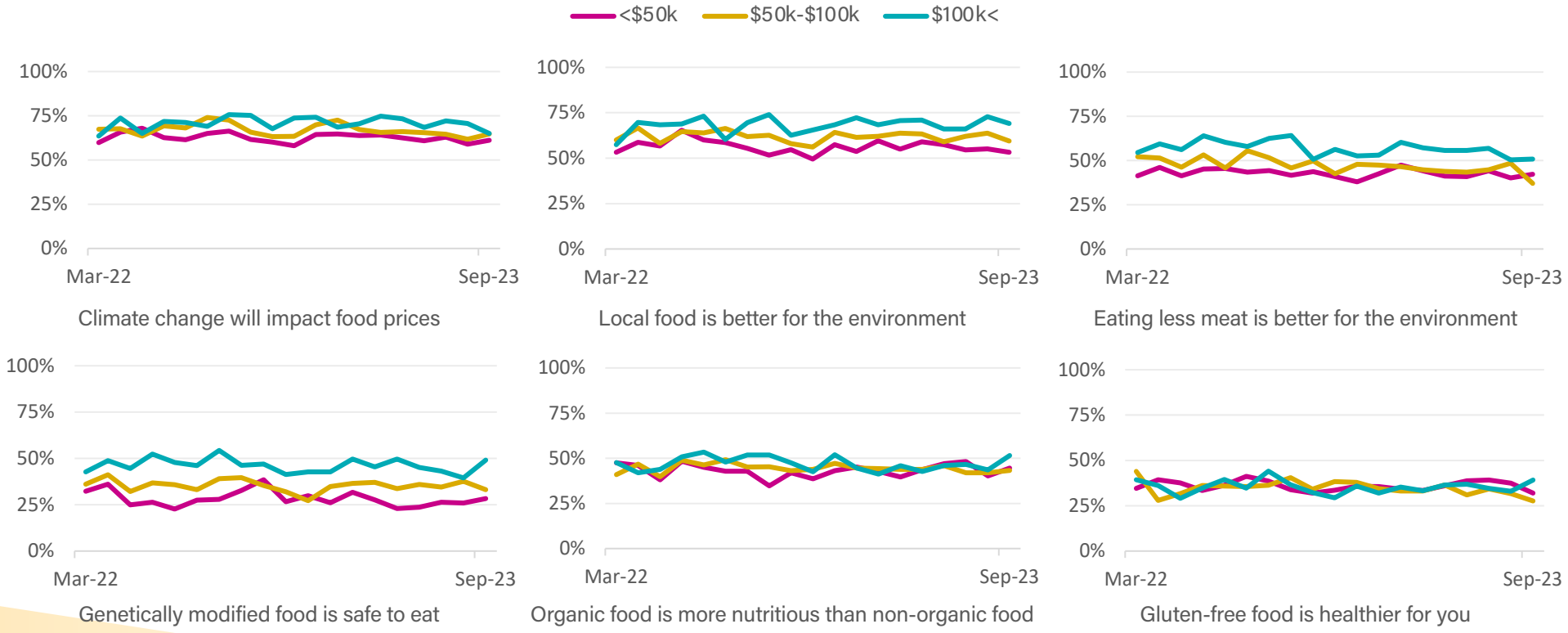


CONSUMER BELIEFS

What do Americans believe about their food and food system?

A larger portion of consumers in the $100,000< income range agree with statements that connect the food system with climate change relative to other income groups. However, the majority of consumers in each income group agree with the statement that climate change will impact food prices on average. The largest gap between the highest and lowest earners occurs in their beliefs about the safety of GMO foods, while other diet-based statements about the healthfulness of organic and gluten-free foods received similar levels of agreement across income.

Figure 19. Share of Consumers who *'Somewhat Agree'* or *'Strongly Agree'* with Claims about Food by Annual Household Income, Mar. 2022 - Sept. 2023

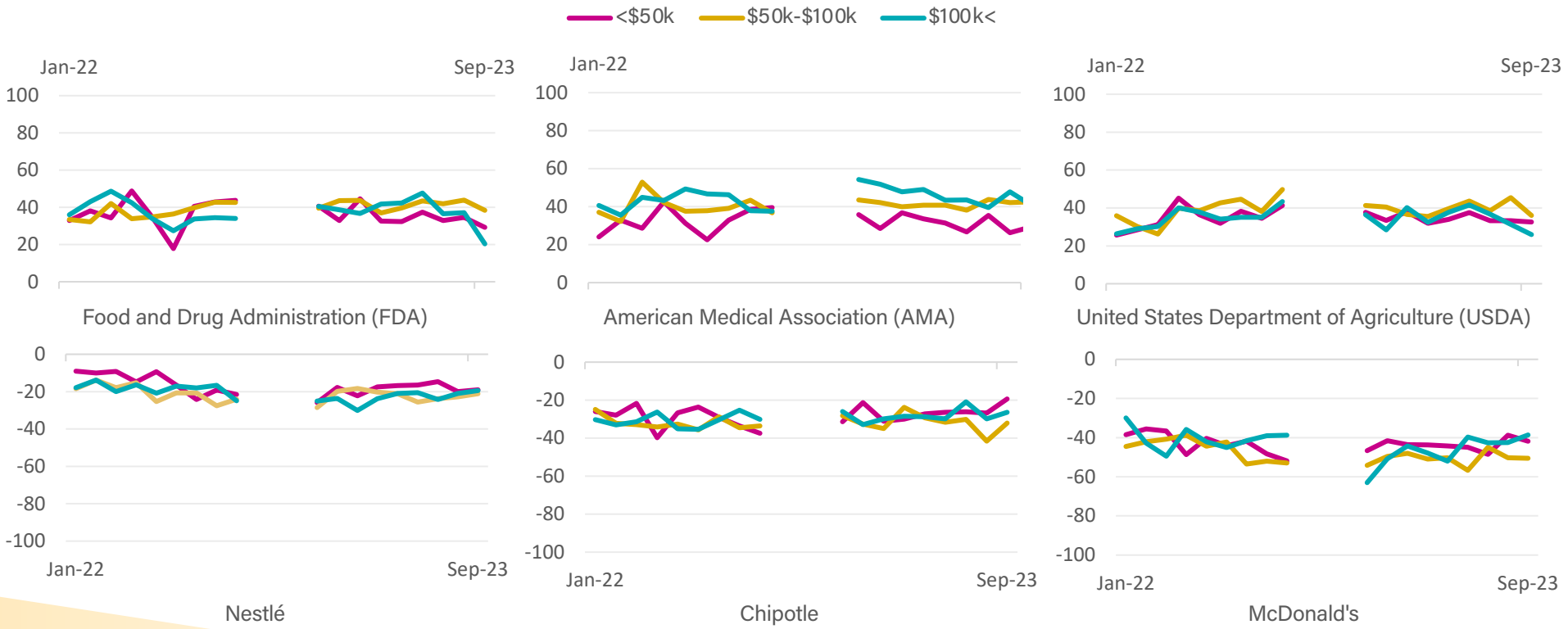


CONSUMER TRUST

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**). On this index, the FDA and USDA are consistently trusted across incomes brackets, though trust among the highest earners has declined in the past few months. While trusted by all consumers, the AMA trust score has varied between income groups over time. Food brands Nestle, Chipotle and McDonald's continue to perform worse on the index than other entities.

Figure 20. Trust Index of Food-Related Information Sources by Annual Household Income, Jan. 2022 - Sept. 2023



ENDNOTES

1 Data were collected from an online panel maintained by the company Dynata over a four-day period from September 18-21, 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 54% of August'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 annual household income category:

January 2022 - September 2023	*Less than $50,000*: n=10,753; *$50,000 - $100,000*: n=8,634; and *More than $100,000*: n=6,852
January - September 2022	*Less than $50,000*: n=4,740; *$50,000 - $100,000*: n=3,726; and *More than $100,000*: n=2,785
January - September 2023	*Less than $50,000*: n=4,573; *$50,000 - $100,000*: n=3,600; and *More than $100,000*: n=3,089
Average monthly	*Less than $50,000*: n=512; *$50,000 - $100,000*: n=411; and *More than $100,000*: n=326

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 indication of change in diet

ENDNOTES

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 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.

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.