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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 revisit the focus of the August 2022 CFI by analyzing the results according to political ideology. We aggregate 20 months of data collection (January 2022 – August 2023) and split respondents into three self-identified groups: liberal, moderate and conservative. New questions this month also gauge consumer behavior when faced with potential price increases for pork products due to animal welfare regulations.

KEY INSIGHTS FROM AUGUST

- Reported grocery stockouts decreased by three percentage-points from July.
- Consumers' estimates and predictions for food inflation both increased despite a continued decrease in annual CPI food inflation.
- Food insecurity is two percentage-points lower than last month and lower than the 2022 average for the first time in four months.
- Consumers most satisfied with their diets (i.e., thriving) make up 67% of consumers, the lowest recorded by this survey.
- Consumer food values, beliefs and trust vary by political ideology.
- Consumers reduce pork expenditures when prices rise, but less so when the price increase is caused by animal welfare regulations.

SUSTAINABILITY
INDEX

69
/100

FOOD
INSECURITY

14%

FOOD
SPENDING

\$191
/WEEK

GROCERY
STOCKOUTS

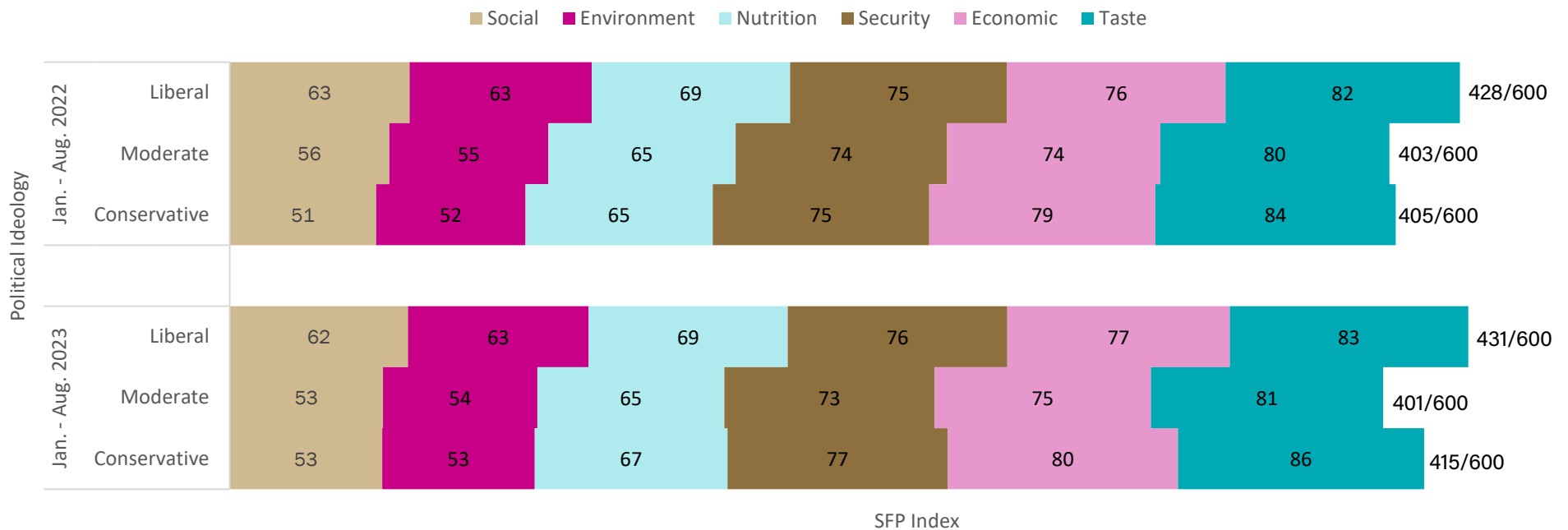
8%

SUSTAINABLE DIETS

Are Americans making sustainable food purchasing decisions?

Scores on the Sustainable Food Purchasing (SFP) Index² remains stable, with scores this year similar to the same period last year. Also, there are persistent differences across political ideology. Liberals report higher scores for social and environmental sustainability of their diets, while conservatives report higher scores for economics and taste sustainability. **(Figure 1).**

Figure 1. Sustainable Food Purchasing Index by Political Ideology, Jan. 2022 - Aug. 2023

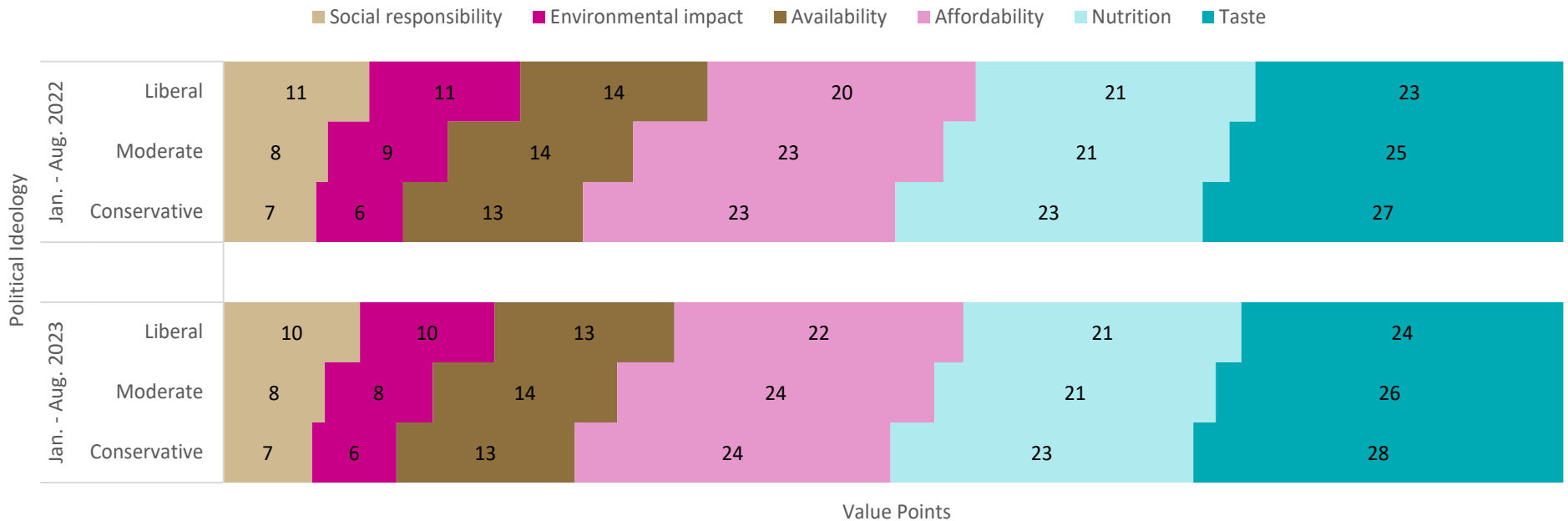


FOOD VALUES

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. The distribution of points across these attributes has remained stable over time. However, we do see some important differences across political ideology. Disaggregating by political ideology reveals more interesting results. On average, consumers who identify as liberal value the environmental impact and social responsibility of their food more than others on the political spectrum while those who identify as conservative value affordability, nutrition, and taste more. These differences have not changed much over time. Notably, affordability and taste increased in importance for consumers of all political ideologies compared to August of last year.

Figure 2. Share of 100 Points Allocated to Food Attributes by Political Ideology, Jan. 2022 - Aug. 2023

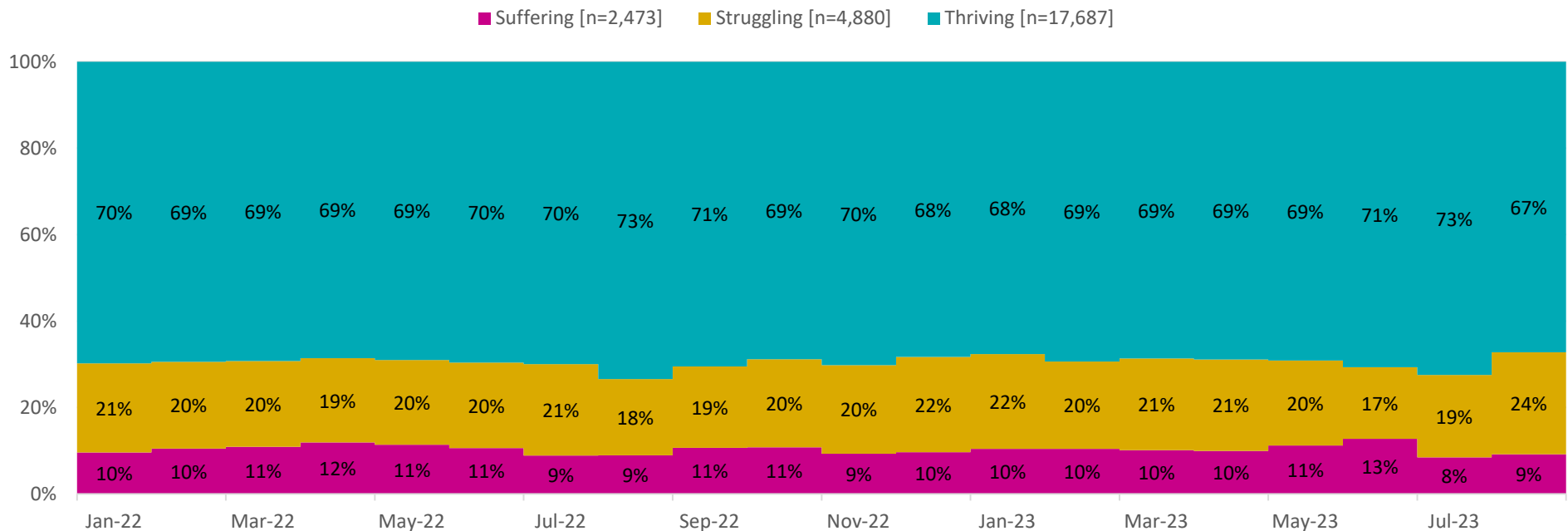


FOOD SATISFACTION

Are Americans satisfied with their diets?

Using the [Cantril Scale](#), respondents scored their own diet on a 0-10 scale, with top of that scale representing their ideal diet. Scores are categorized as suffering (0-4), struggling (5-6) or thriving (7-10). While the majority of consumers continue to be considered thriving, the share of respondents considered to be suffering or struggling increased by 6% from July to August. The 67% share of respondents considered thriving is the lowest it has been since data collection began in January 2022 (**Figure 3**). However, other indicators of consumer satisfaction remain strong with 86% of consumers reporting they are rather or very happy with their overall diet and 87% reporting they are rather or very happy with their lives overall.

Figure 3. Food Satisfaction Index [total n], Jan. 2022 - Aug. 2023

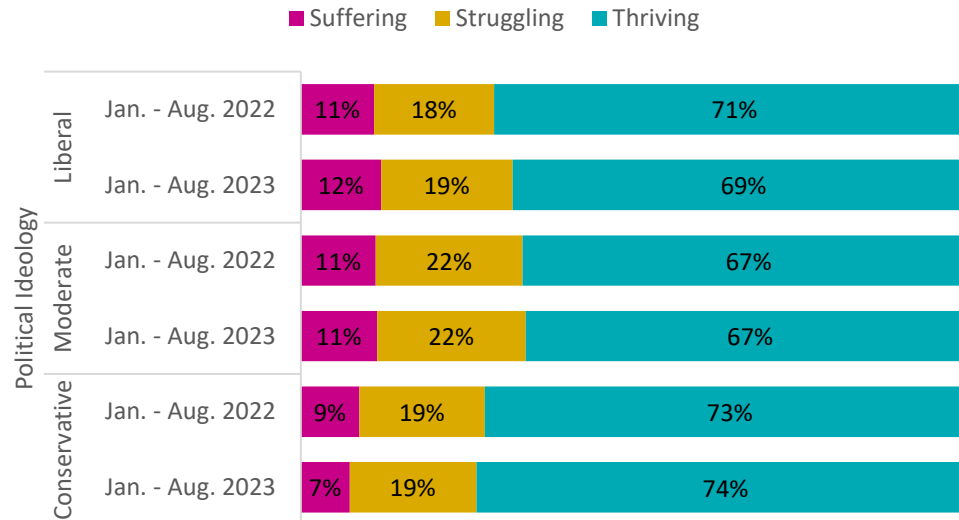


FOOD SATISFACTION

Are Americans satisfied with their diets?

Food satisfaction by political ideology remains relatively consistent when comparing 2023 results to the same time period in 2022 (Figure 4). However, we do observe a slight increase in the proportion of struggling and suffering among those who identify as liberals from 2022 to 2023. This change is mirrored by diet happiness where 3% of liberals shifted from "rather happy" to "not very happy" with their diets (Figure 5). The most notable difference across groups is a slightly lower score among moderates, which remained consistent from 2022 to 2023. We see a similar results when asking consumers' diet and life happiness with moderates being less likely to be very happy (Figures 5 & 6). However, they make up for this difference in their rates of "rather happy". Overall, the majority of consumers remain satisfied with their food and lives regardless of political ideology with only minor differences in satisfaction levels observed.

Figure 4. Food Satisfaction by Political Ideology, Jan. 2022 - Aug. 2023



FOOD SATISFACTION

Figure 5. Diet Happiness by Political Ideology, Jan. 2022 - Aug. 2023

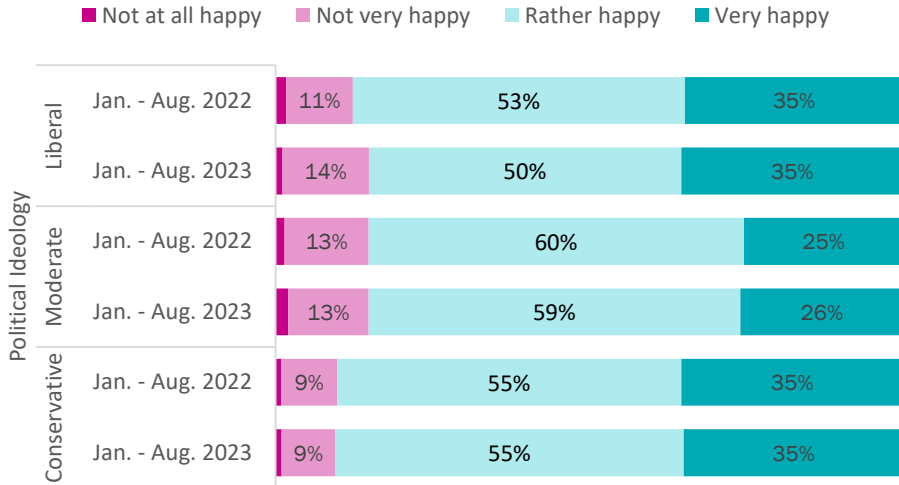


Figure 6. Life Happiness by Political Ideology, Jan. 2022 - Aug. 2023

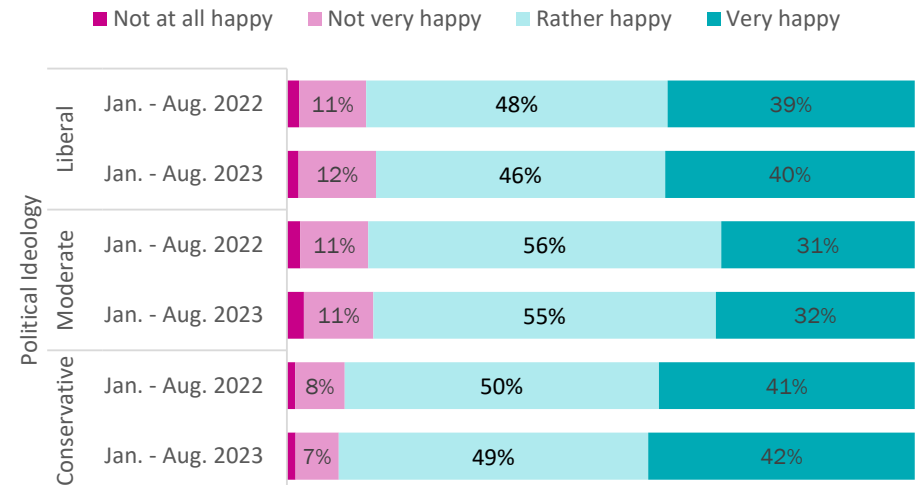
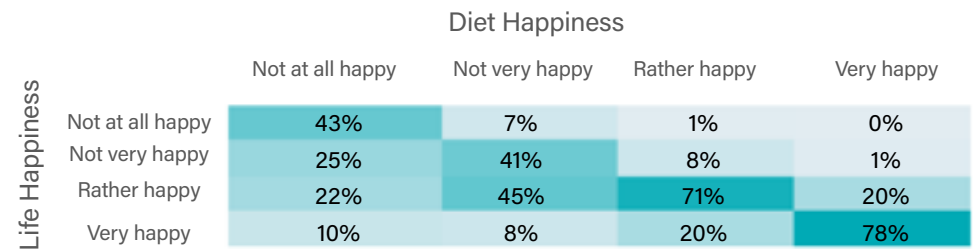


Figure 7 shows life happiness and diet happiness are positively correlated. Each column includes the proportion of the responses to the diet happiness question that are shared with the responses to the life happiness question. The darker shaded cells indicate more common combinations of responses. As you can see, many respondents who indicate a level of happiness in life also indicate a similar or same level of happiness in diet.

Figure 7. Life Happiness by Diet Happiness, Jan. 2022 - Aug. 2023



FOOD SECURITY

Which Americans are having trouble buying food for their families?

Based on a set of six standard questions³ about food purchased and eaten in the past 30 days, we estimate national food insecurity to have decreased from 16% in July to 14% in August. **Figure 8** reveals this rate to be 2% less than August of last year and slightly under the 2022 food insecurity average for 2022. This is the first time food insecurity has dropped below the 2022 average since April 2023. **Figure 9** disaggregates food insecurity by self-identified political ideology and reveals disparities in food insecurity between groups. Of the three political ideology groups, 15% of households identifying as liberal and 16% identifying as moderate are experiencing food insecurity compared to 10% of conservative households.

Figure 8. Rate of Household Food Insecurity in Last 30 Days, Jan. 2022 - Aug. 2023

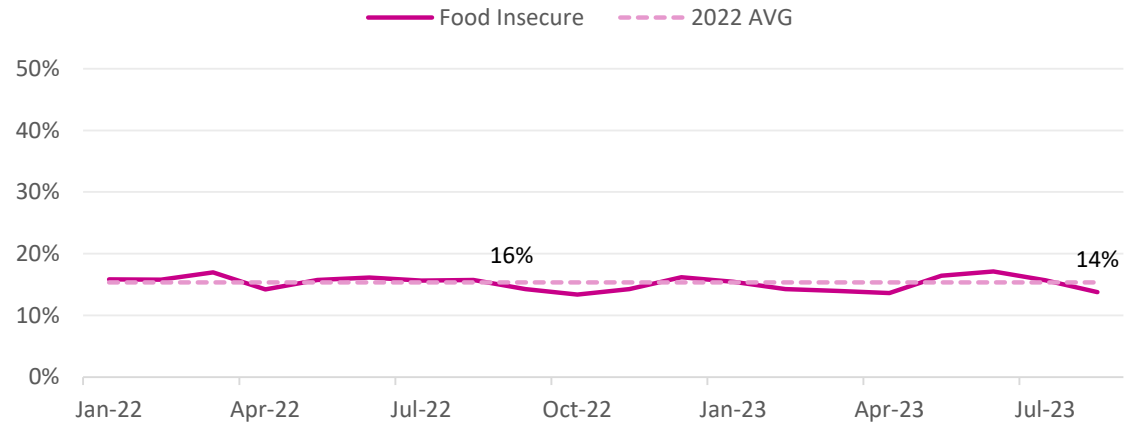
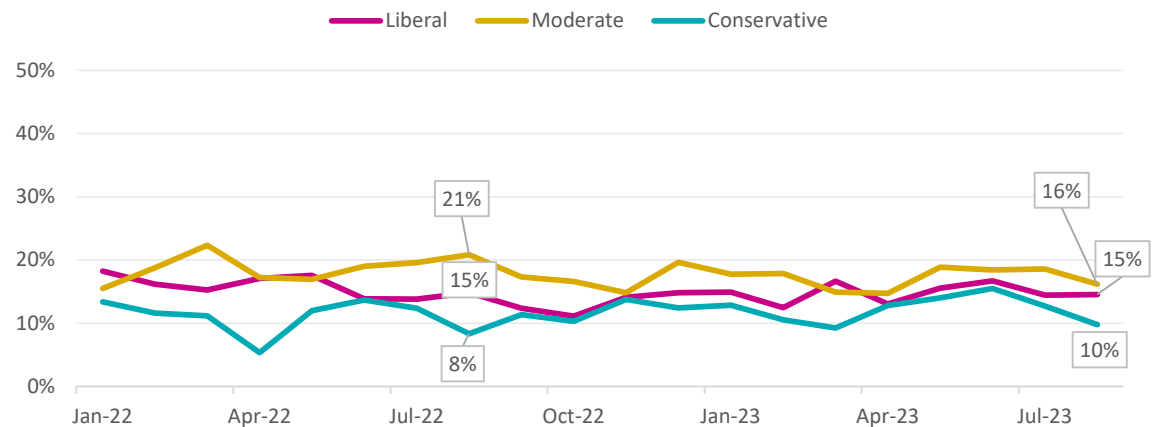


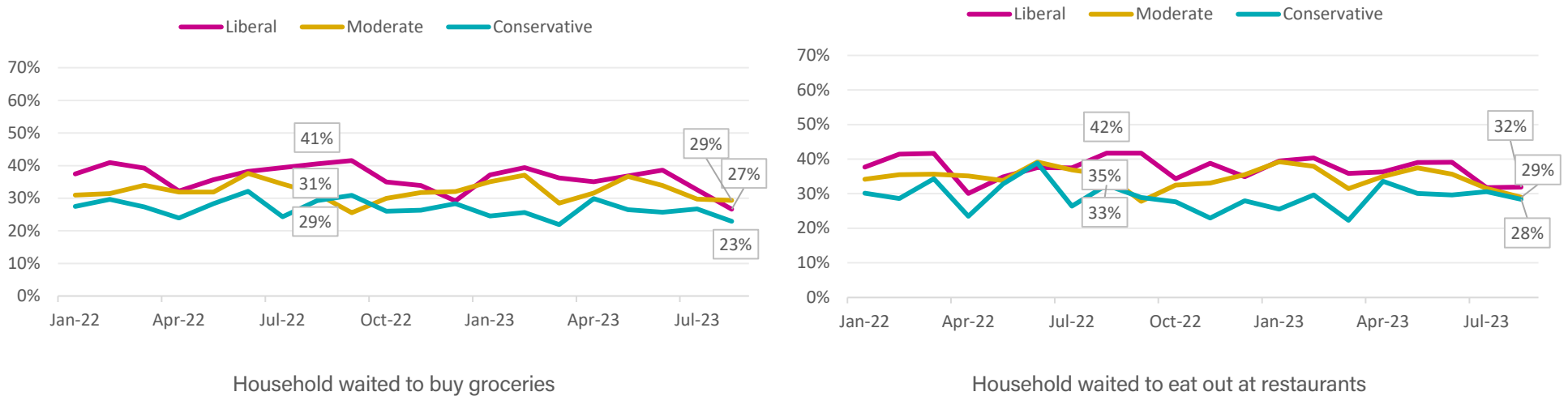
Figure 9. Rate of Household Food Insecurity by Political Ideology Jan. 2022 - Aug. 2023



FOOD SECURITY

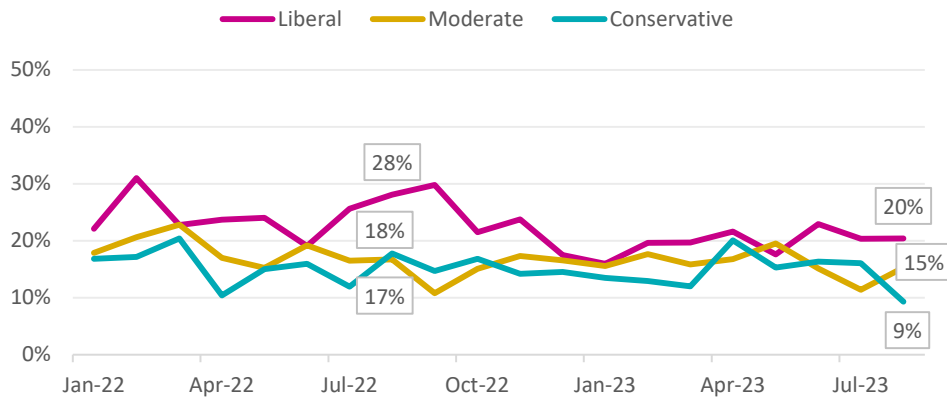
Figures 10-11 show rates of forgoing food purchases have improved among all political ideology groups compared to August of 2022. These improvements are reflected in the overall decrease in food insecurity. However, we see a larger share of liberal and moderate households forgoing groceries and dining out because they are waiting on their next paycheck relative to conservative households. We make the same observation when looking at rates of food assistance. Interestingly, we see an increase in the proportion of conservative and moderate households receiving SNAP benefits from August 2022 to August 2023. It is important to note that it is unlikely that political ideology is causing the differences in food insecurity rates; rather, ideology is likely correlated with factors that are more likely to be affecting food insecurity, such as geography, income and age⁴.

Figure 10. Rate of Households Waiting on Next Paycheck to Buy Groceries and Dine Out by Political Ideology, Jan. 2022 - Aug. 2023

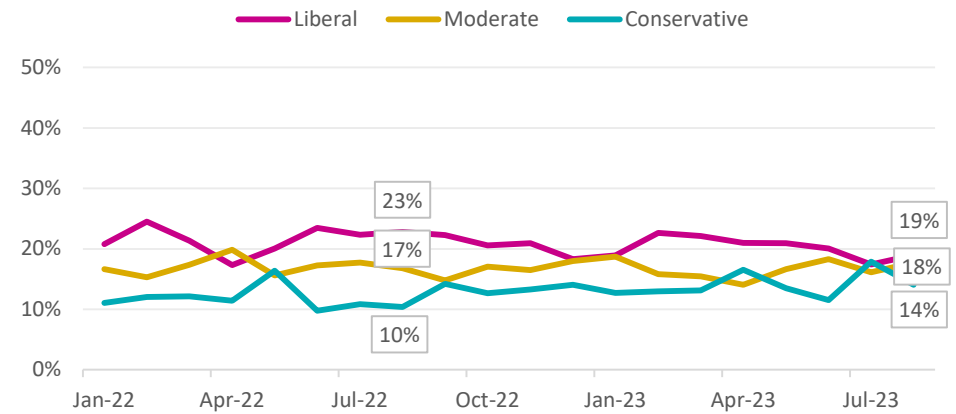


FOOD SECURITY

Figure 11. Rate of Households Receiving Free Food and SNAP Benefits by Political Ideology, Jan. 2022 - Aug. 2023



Household received free food from a food pantry



Household member received SNAP benefits

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 12**). On average, consumers are spending about \$124/week on groceries (FAH) and \$67/week on restaurants and other carryout (FAFH).⁵ Compared to last August, FAH spending is up 8.7% and FAFH spending is up only 0.7%. This annual increase is unsurprising as government inflation measures show FAFH inflation continue to outpace FAH inflation. Consumers may be opting to eat more homecooked meals as inflation continues to push FAFH prices up.

Consumer estimates of annual food inflation rose to 6.2% this month after falling steadily since late Spring (**Figure 13**). This estimate is higher than the official government estimate of food inflation from July, which sits at 4.9%. Similarly, consumers' expectations for future food inflation increased to 3.9%. It will be interesting to see if consumer food inflation estimates continue increasing and begin to diverge with the government's annual food inflation estimate, which has decreased consistently since August of 2022.

Figure 12. Weekly Household Food Expenditures, Jan. 2022 - Aug. 2023

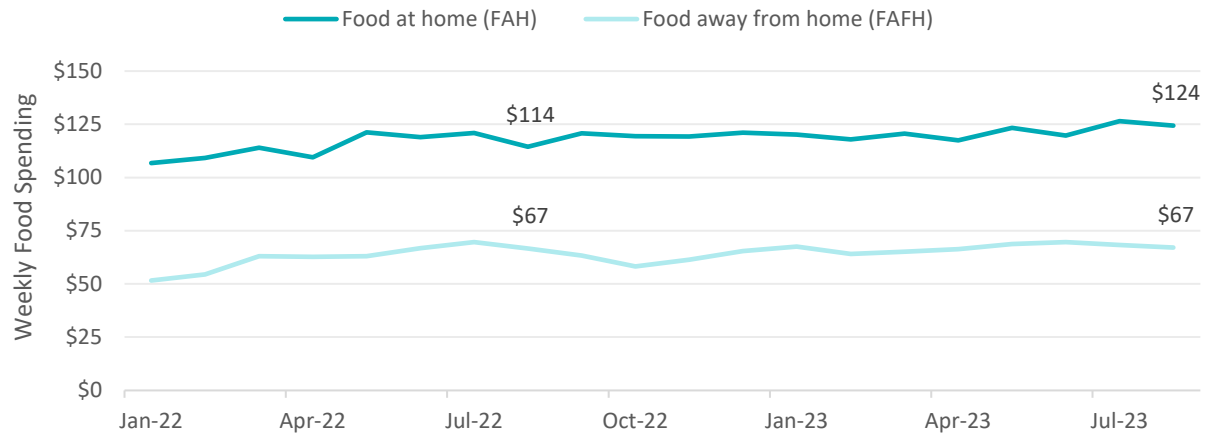
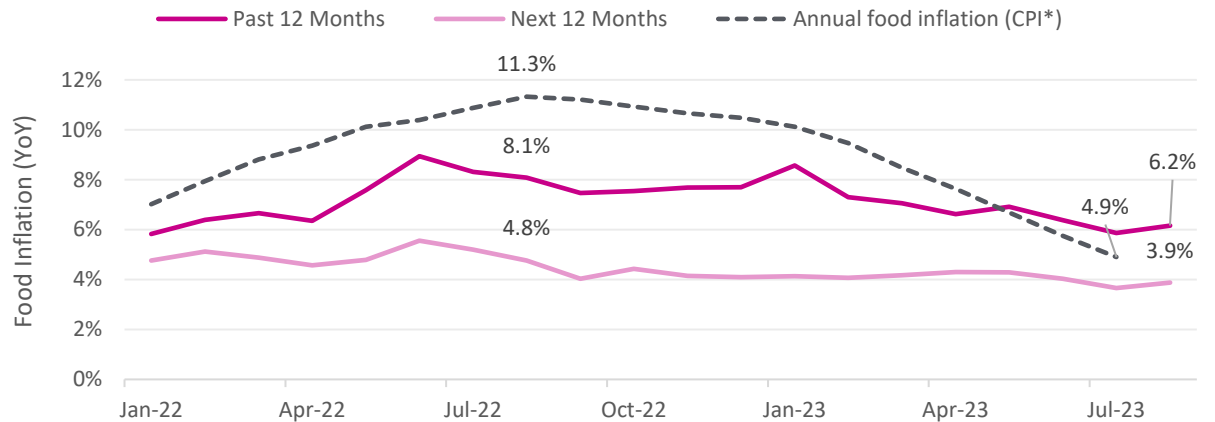


Figure 13. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Aug. 2023



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

FOOD EXPENDITURES

How do consumers of different political ideologies differ in their grocery experiences?

Consumers report whether they have faced any stockouts of specific food products at the stores where they usually shop (**Figure 14**). There has been a consistent downward trend in reported stockouts since January 2022. This trend holds true when disaggregating by political ideology with no consistent difference in stockout rates between the consumer groups.

Figure 15 shows a moderate decrease in the rate of online shopping over time, but this trend has largely leveled out. However, those who identify as liberal have consistently reported higher rates of online grocery shopping than the other political groups (December 2022 being the exception) with a larger gap observed since early Spring of 2023. This suggests differences in the adoption of alternative shopping methods between consumers of differing political ideologies.

Figure 14. Rate of Grocery Stockouts (of one or more items), Jan. 2022 - Aug. 2023

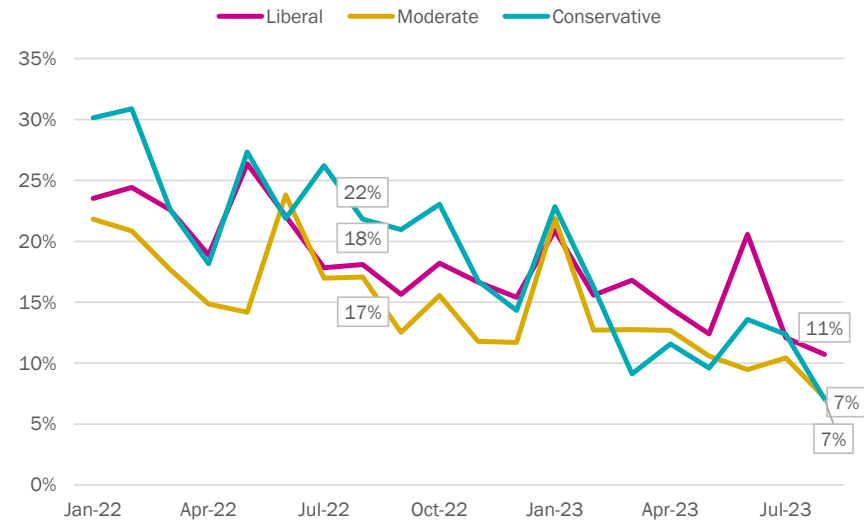
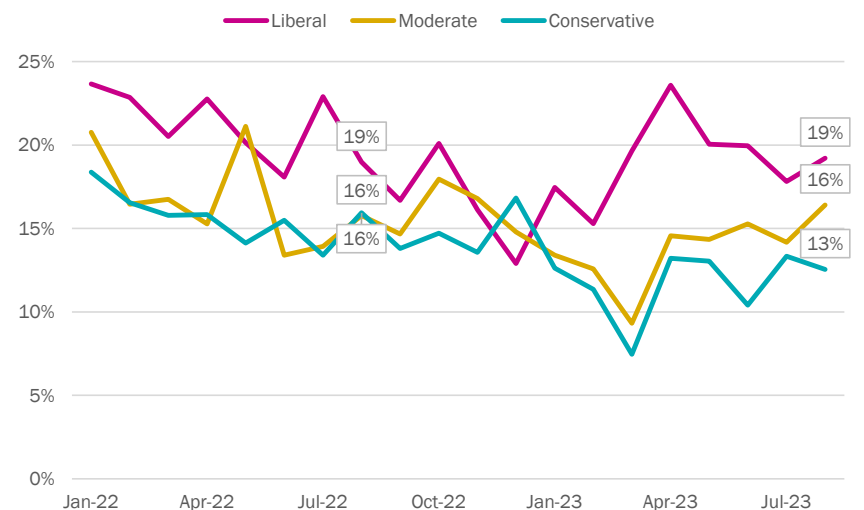


Figure 15. Rate of Online Grocery Shopping, Jan. 2022 - Aug. 2023



FOOD PRICE INFLATION

How do inflation estimates change depending on political ideologies?

Figures 16-17 reveal correlations between political ideology and both estimated and expected food inflation. Estimated and expected food inflation are lower among all groups compared to the same month last year. However, self-identified liberals place food inflation around two points lower than conservatives when assessing estimated and expected inflation. Average annual food spending is very similar across the political spectrum (except at the highest income levels), so this would not explain the difference in perceived food prices (Figure 18).

Figure 18. Annual Food Expenditures by Income Level, Jan. 2022 - Aug. 2023

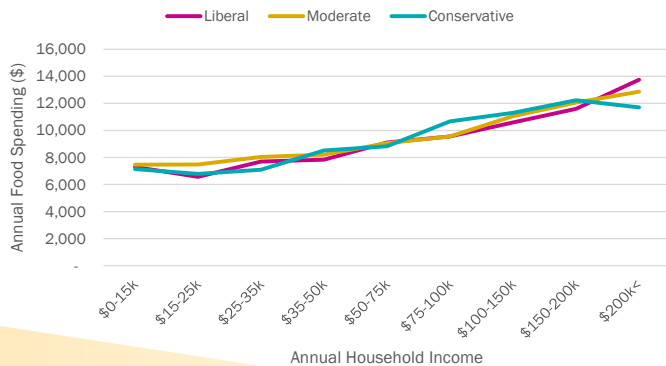


Figure 16. Consumer Estimates of Food Inflation by Political Ideology, Jan. 2022 - Aug. 2023

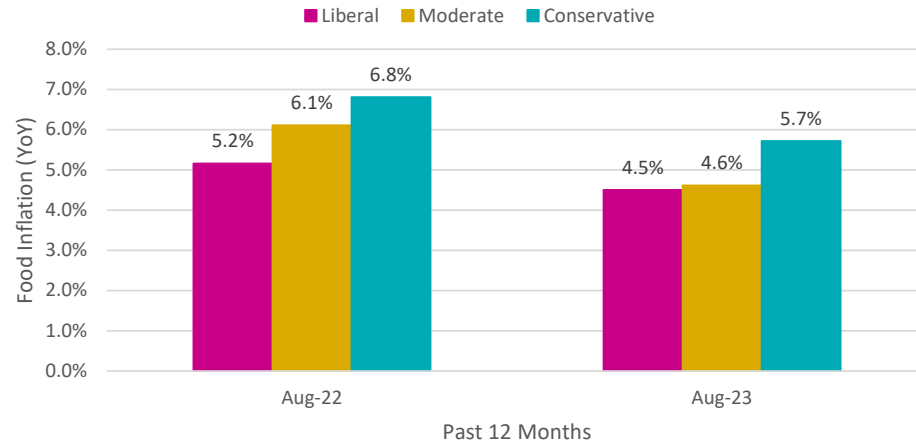
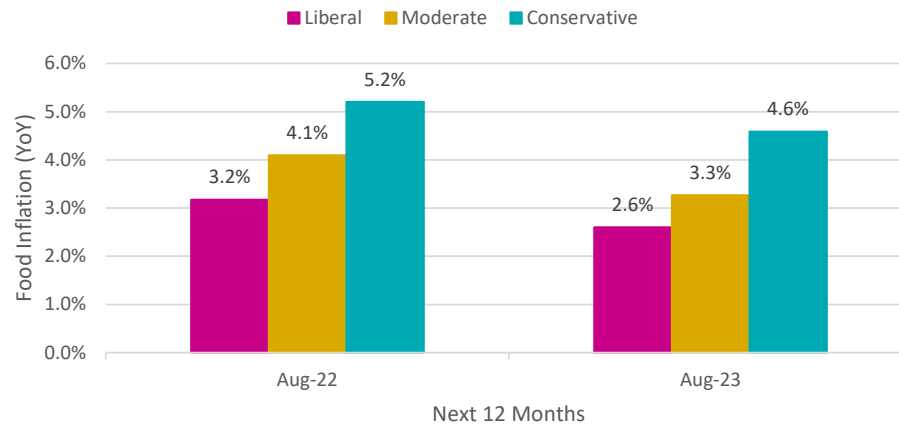


Figure 17. Consumer Expectations of Food Inflation by Political Ideology, Jan. 2022 - Aug. 2023



CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Home or community food gardening remains more popular among consumers who self-identify as liberal, though around a quarter of moderate and conservative consumers currently garden their own food as well (**Figure 19**). Vegetarianism and veganism are adopted by a larger proportion of those who identify as liberal compared to moderates and conservatives. Liberals avoid meat at twice the rate of moderates and conservatives (**Figure 20**). Interestingly though, among the Americans who value environmental attributes the most when shopping for food, only 20% adopt strict plant-based diets. These results remain consistent with the findings of the August 2022 CFI survey.

Figure 21 further shows the frequency of consumer food behaviors broken down by political ideology. Consistent with results over the same period last year, self-identified liberals purchase food items typically promoted as more ethical or sustainable (i.e. local foods, wild-caught fish, grass-fed beef, cage-free eggs, organic, plant-based proteins) more often than moderate or conservative consumers. Similarly, liberals more frequently check how their food is produced, if the food is labeled as clean/natural, and if their food contains GMO ingredients than those on the moderate or conservative ranges of the political spectrum. They also tend to compost more often than others. Checking the sell-by date and taking action to reduce food waste remain uncorrelated with political ideology. These results are relatively consistent with what was found in the August 2022 report.

Figure 19. Share of Adults who Food Garden by Political Ideology, Jan. 2022 - Aug. 2023

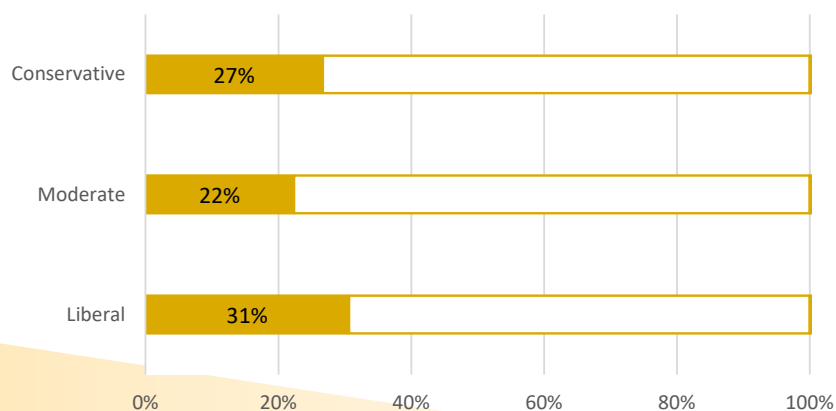
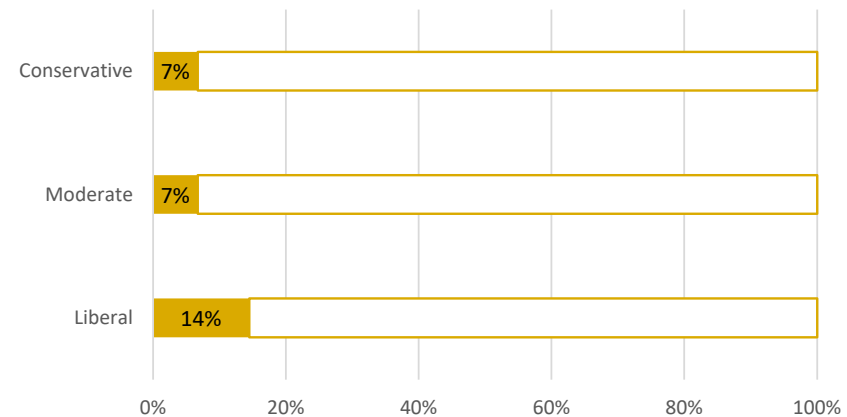
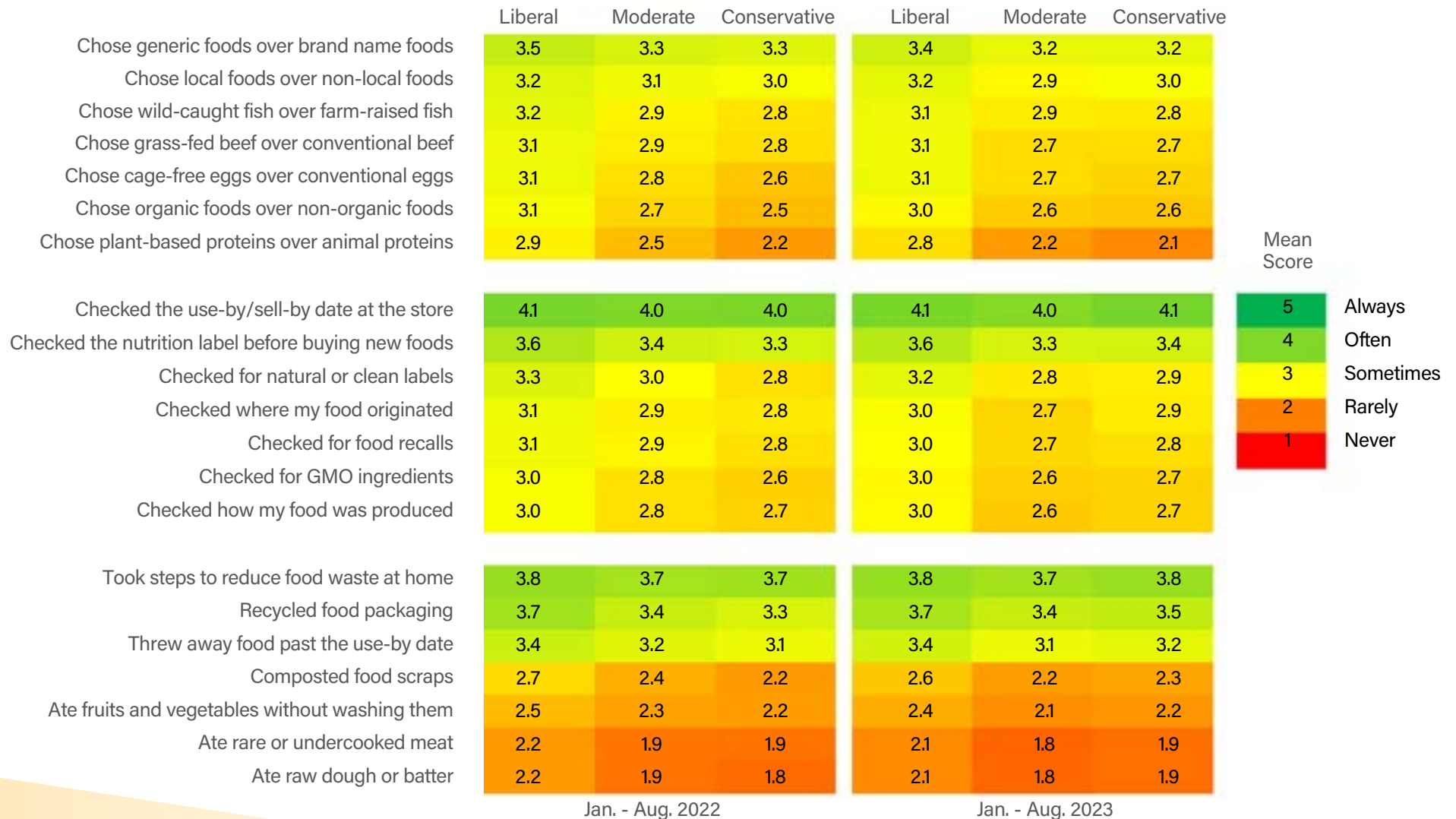


Figure 20. Share of Adults who Identify as Vegetarian/Vegan by Political Ideology, Jan. 2022 - Aug. 2023



CONSUMER BEHAVIORS

Figure 21. Frequency of Consumer Shopping and Eating Habits by Political Ideology, Jan. 2022 - Aug. 2023

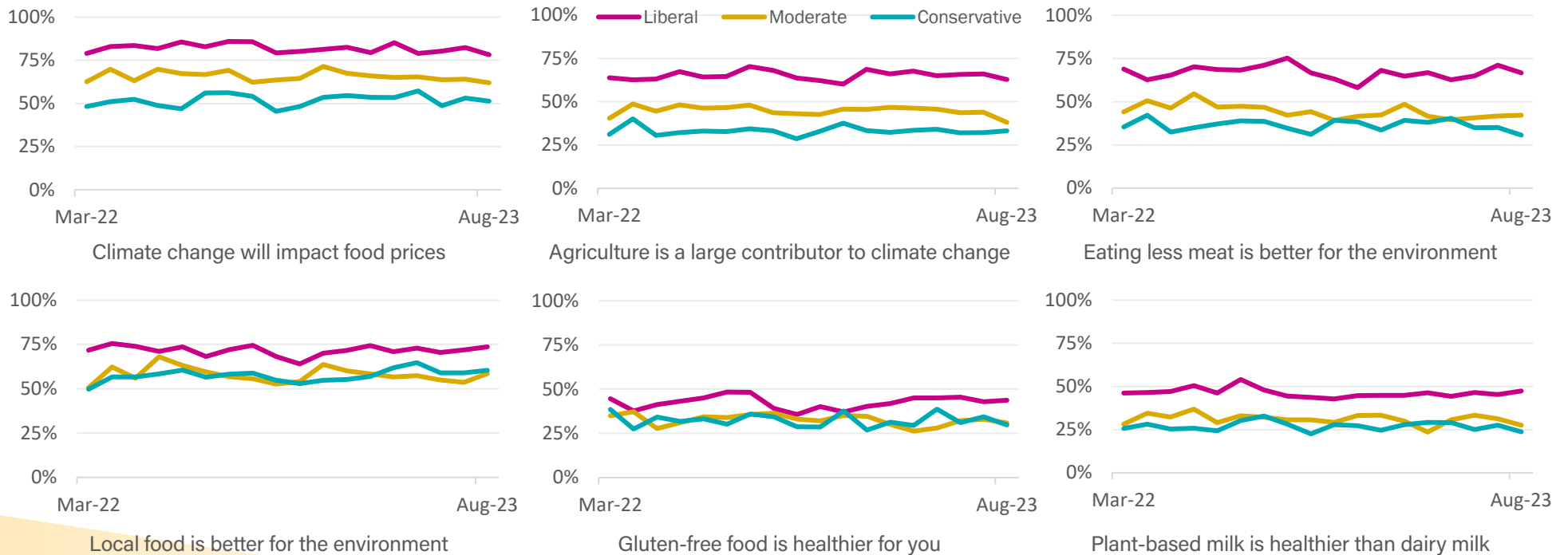


CONSUMER BELIEFS

What do Americans believe about their food and food system?

Respondents are presented with a series of statements regarding common beliefs about the food system and asked to give their degree of agreement with each statement (**Figure 22**). Notably, all statements regarding beliefs about the connection between the food system and climate change fielded varying levels of agreement with a majority of liberals and minority of conservatives agreeing. Responses to the nutrition related statements about gluten-free foods and plant-based milks being healthier food options were less varied across political ideologies, though more liberals agree with the statements than conservatives and moderates. The idea that local food is better for the environment is a broadly held belief across all political groups.

Figure 22. Share of Consumers who 'Somewhat Agree' or 'Strongly Agree' with Claims about Food by Political Ideology, Mar. 2022 - Aug. 2023

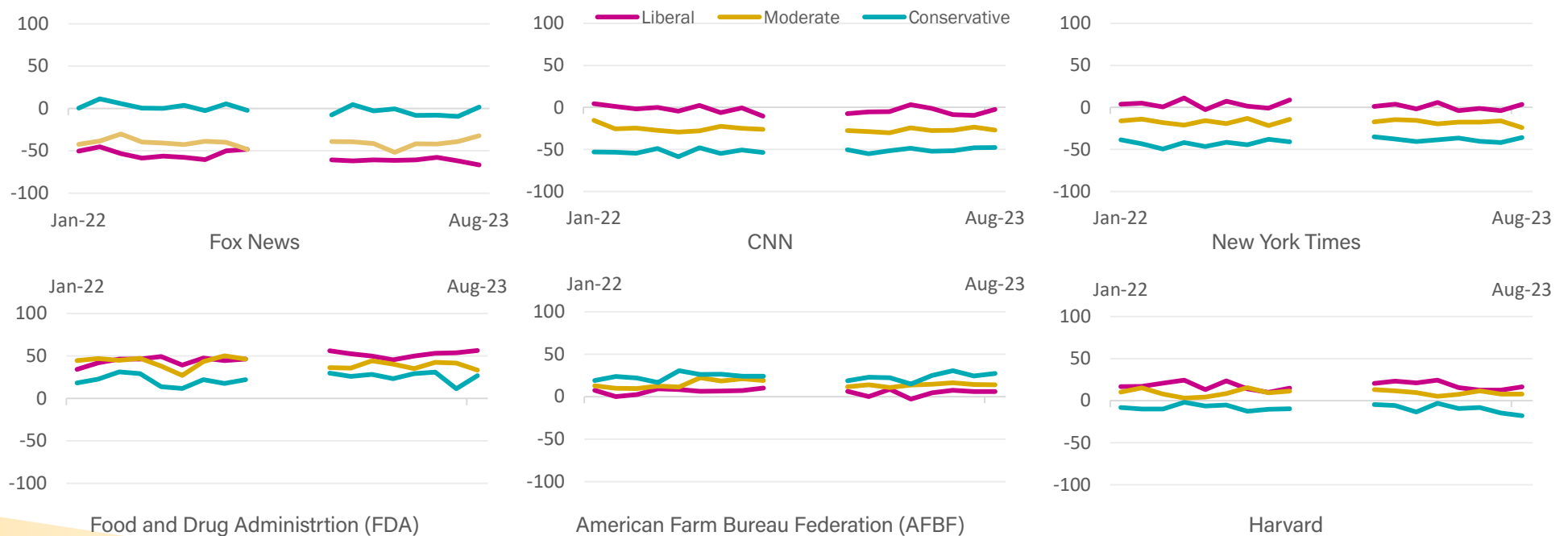


CONSUMER TRUST

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 23**). Significant differences emerge when disaggregating the index scores by political ideology. Unsurprisingly, trust in news media sources varies widely across political beliefs. This is likely a result of the polarizing nature of news media. The largest disparities in trust exist for Fox News, CNN and NYT. The FDA is consistently trusted by consumers of all political beliefs but more so by liberals than moderates or conservatives. The AFBF, which acts as an advocate group for farmers and ranchers, ranks highest in the trustworthiness index among conservatives. Harvard, an esteemed academic and research institution, ranks highest in the trustworthiness index among liberals.

Figure 23. Trust Index of Food-Related Information Sources by Political Ideology, Jan. 2022 - Aug. 2023



ANIMAL WELFARE REGULATION

How would consumers react to specific animal welfare regulations that affect pork prices?

We asked respondents who identified themselves as pork consumers to allocate 100 points to attributes most important when deciding to buy pork products and then asked them to indicate how their consumption of pork products would change based on (1) a general price increase and (2) a price increase caused by recent regulations which set minimum pen space requirements for pigs being bred for pork products.⁶ On average, pork consumers rated price as the most important attribute they consider when purchasing pork products while animal welfare was rated one as of the least important attributes (**Figure 24**).

Figure 25 shows that the importance of animal welfare is relatively the same across all income groups. While the importance of price expectedly decreases as income increases, it remains well above animal welfare for all levels of income.

Figure 24. Share of 100 Points Allocated to Pork Attributes, Aug. 2023

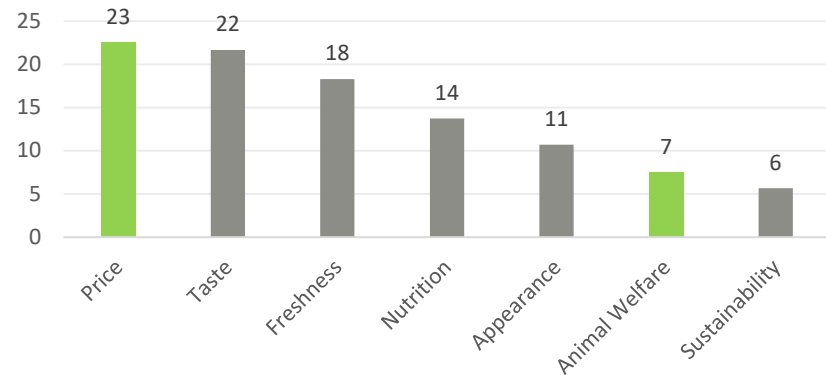
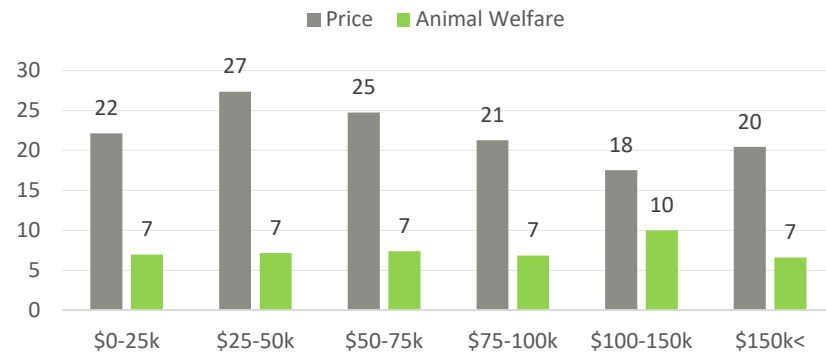


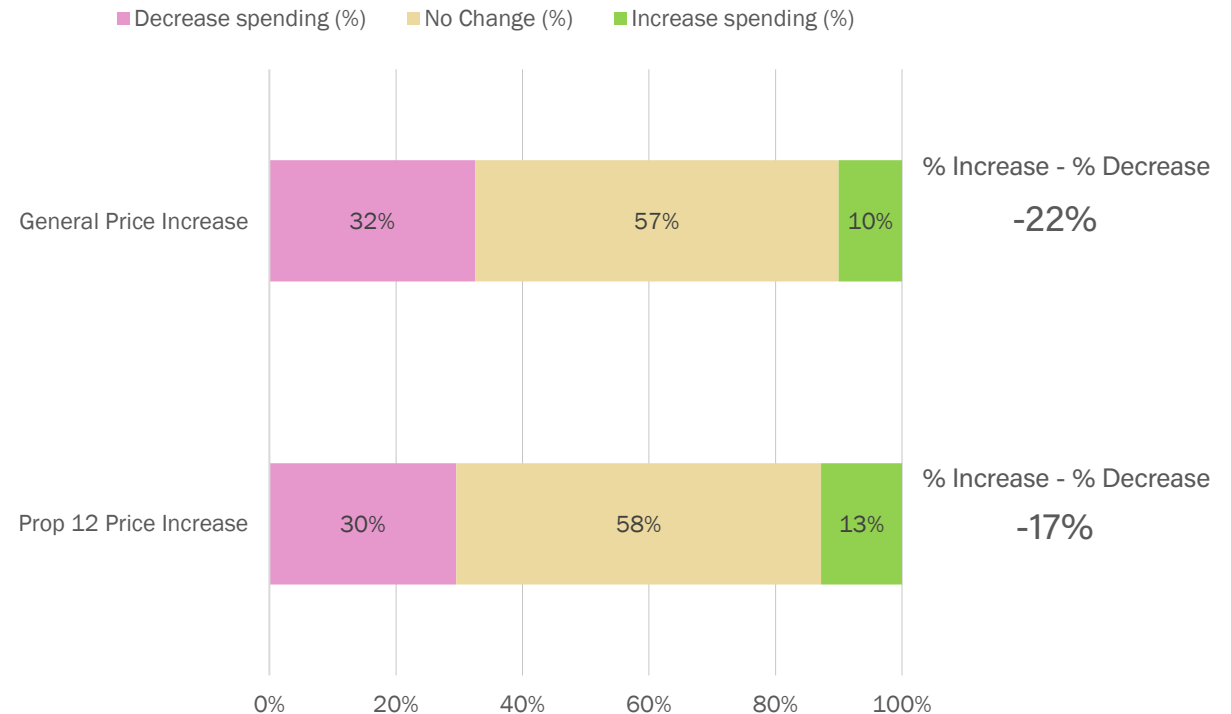
Figure 25. Share of 100 Points Allocated to Price and Animal Welfare by Income Level, Aug. 2023



ANIMAL WELFARE REGULATION

Figure 26 summarizes the consumers' response to hypothetical price increases. Interestingly, when respondents were presented with a price change (of the same size) caused by the Proposition 12 animal welfare regulation, the proportion of consumers who would decrease their spending went down for all consumer groups. More consumers said they would either not change spending or increase spending on pork products. **Figure 26** shows the net difference in the proportion of those who would increase spending vs. decrease spending in each situation. There is a reduction in the net decrease in spending when the price increase is caused by Prop 12, suggesting some WTP for animal welfare in pork products. While price is more important than animal welfare to consumers on average, this result might indicate the importance of animal welfare to some consumers who are willing to spend more on pork under the perception that the pigs raised for their consumption will be better off than before.

Figure 26. Changes in Pork Consumption by Price Increase, Aug. 2023



ANIMAL WELFARE REGULATION

A small portion of consumers who never purchase pork products indicated that Proposition 12 would increase their spending on pork products (11%). In effect, some consumers may be holding out on pork consumption due to their perception of animal welfare in its production (**Figure 27**).

There is little change in the importance of product attributes when grouping the results by political ideology, though it should be noted that those who identify as conservatives consider taste more important than other groups on the political spectrum while liberals consider animal welfare more important than moderates and conservatives, on average (**Figure 28**).

Figure 27. Share of Non-Pork Purchasers Who Would Increase Pork Spending Under Proposition 12, Aug. 2023

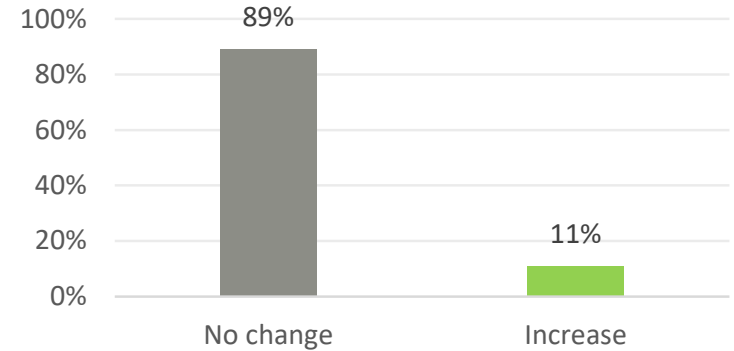
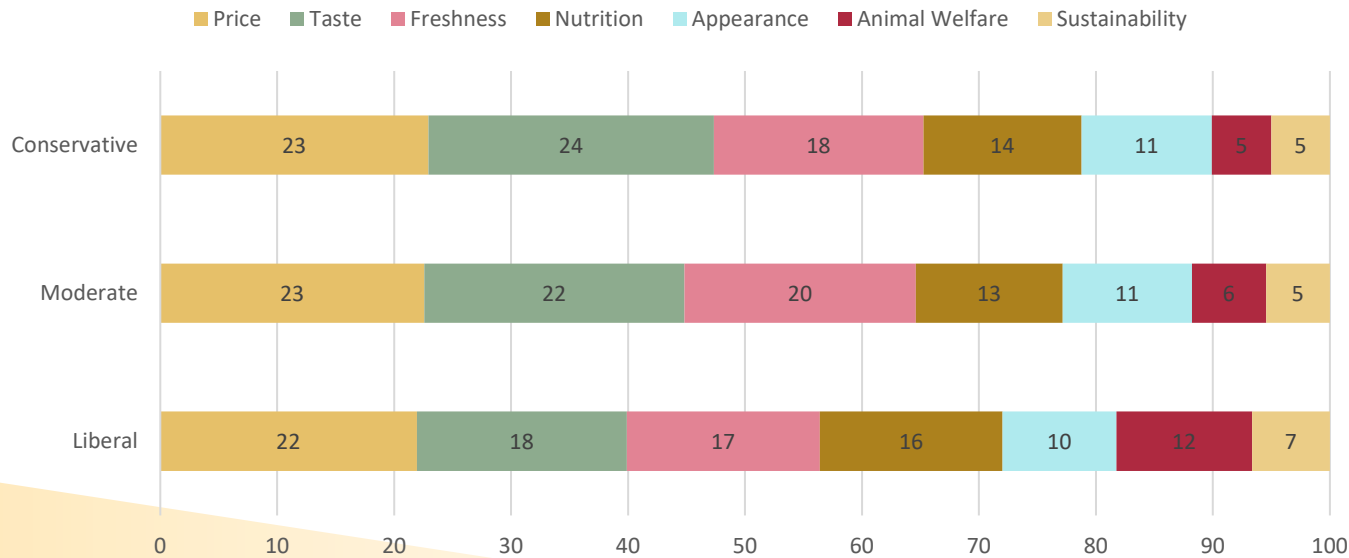


Figure 28. Share of 100 Points Allocated to Pork Attributes by Political Ideology, Aug. 2023

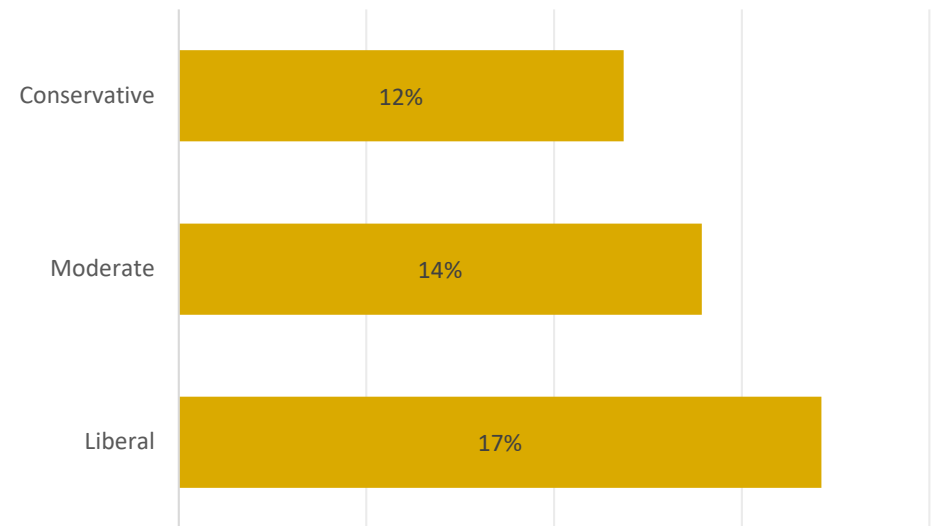
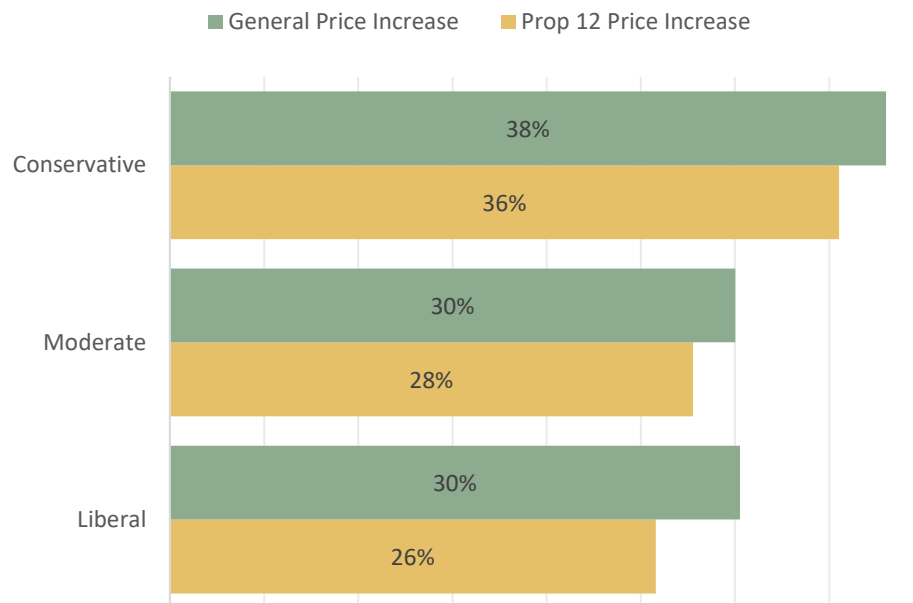


ANIMAL WELFARE REGULATION

Figure 29 shows a smaller proportion of consumers decreasing their pork consumption when the animal welfare regulation is the cause of the price increase, regardless of political ideology. However, this change is greater among those who identify as liberal. **Figure 29** shows a larger proportion of liberals indicating that Proposition 12 would cause them to increase their spending on pork products if prices remain unchanged compared to other political groups. This implies that some consumers might be limiting their pork purchases due to perceived animal welfare issues. Again, these results suggest animal welfare is more important to those who identify as liberal when deciding to purchase pork products.

Figure 29. Share of Consumers Who Would Decrease Pork Consumption Based on Price Change by Political Ideology, Aug. 2023.

Figure 30. Share of Consumers Who Would Increase spending on Pork Under Proposition 12 by Political Ideology, Aug. 2023.



ENDNOTES

1 Data were collected from an online panel maintained by the company Dynata over a five-day period from August 21-25, 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 50% of July'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 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.

3 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 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.

4 Socio-Economic and Demographic Characteristics of Liberal, Moderate, and Conservative Ideological Groups (%)

ENDNOTES

Demographic Summary by Political Ideology (%), Jan. 2022 - Aug. 2023

Category		Liberal	Moderate	Conservative	U.S. Census
Age	18-34 years old	37	31	21	30
	35-54 years old	33	35	30	33
	55 years or older	30	35	49	37
Race	White	46	47	67	58
	Black	14	11	6	12
	Asian	6	7	4	6
	Hispanic	26	23	16	19
	Other	8	11	8	5
	Transgender or other	1	<1	<1	<1
Sex	Male	44	49	55	49
	Female	55	51	45	51
	Transgender or other	1	<1	<1	<1
Geography	Northwest	19	17	15	17
	Midwest	20	21	23	21
	South	37	37	41	38
	West	25	25	21	24
Income	<\$50,000/year	36	43	32	26
	\$50,000-\$100,000/year	28	28	32	41
	>\$100,000/year	35	28	36	33

N = 25,039

ENDNOTES

5 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.

6 More information on *Proposition 12, Farm Animal Confinement* can be found on the California Department of Food and Agriculture's [website](https://www.cdfa.ca.gov/AHFSS/AnimalCare/). State of California, California Department of Food and Agriculture (2023). *Animal Care Program*. California Department of Food and Agriculture. <https://www.cdfa.ca.gov/AHFSS/AnimalCare/>