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Consumer Food Insights

Center for Food Demand Analysis and Sustainability (CFDAS)
College of Agriculture, Purdue University
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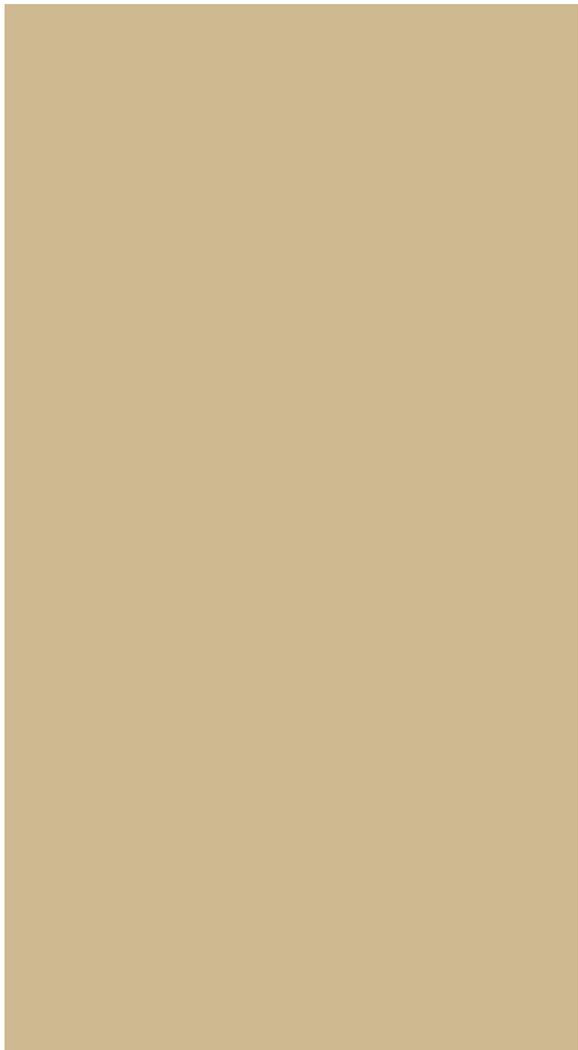
INTRODUCTION

Consumer Food Insights is a monthly survey of more than 1,200 Americans from across the country produced and run by the Center for Food Demand Analysis and Sustainability (CFDAS) at Purdue University to track trends and changes in consumer food demand and food sustainability behaviors.[i] The U.S. food system continues to confront challenges brought on by COVID-19, climate change, and economic volatility. Current data on the activities affected by these events is essential to appropriately respond and develop actionable policies. We seek to better understand our national food environment and help businesses navigate their supply chains. Consumer Food Insights reveals where, how, and what food U.S. consumers bought and ate, with a focus on the implications for food systems at the national scale (visit purdue.ag/CFDAS for more details).

SUSTAINABLE FOOD PURCHASING INDEX

67/100

KEY INSIGHTS FROM JANUARY

- **21%** of respondents purchased their last groceries online
- **32%** of respondents are waiting for their next paycheck to buy groceries again
- **46%** of respondents ate home-cooked meals 4-6 times per week
- **11%** of respondents identified as a vegetarian or vegan
- **51%** of respondents blamed COVID-related shutdowns for the rise in meat prices
- **25%** of respondents were unable to find a specific food product at the grocery store, including top items like chicken, beef, dairy, and bread products

See also...

- **SUSTAINABLE DIETS** for more on the Sustainable Food Purchasing (SFP) Index
- **FOOD EXPENDITURES** for more on household food spending and inflation
- **FOOD SATISFACTION** for more on consumer happiness with their diets
- **CONSUMER TRUST** for more on consumer trust in food-related information

FOOD INSECURITY

16%

of respondents face food insecurity

FOOD SPENDING

$158

per week at grocery stores & restaurants

FOOD HAPPINESS

87%

of respondents are happy with their diet

SUSTAINABLE DIETS

Are Americans purchasing sustainable food?

The Sustainable Food Purchasing (SFP) Index is a self-reported measure of food purchasing designed to assess how well consumer shopping habits correspond with healthy diets from sustainable food systems, as described by the EAT-*Lancet* Commission on Food, Planet, Health.

The SFP scores range from 0 to 100. 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 overall SFP Index comprises of six components—Nutrition, Environment, Social, Economic, Security, and Taste—correlating with the different strategies for achieving food systems transformation. Consumers answer three questions for each sub-component on a five-point scale, with the top of the scale being most consistent with sustainability. More information on these components and the SFP scoring procedure is described on the CFDAS website.

Figure 1. Sustainable Food Purchasing Index
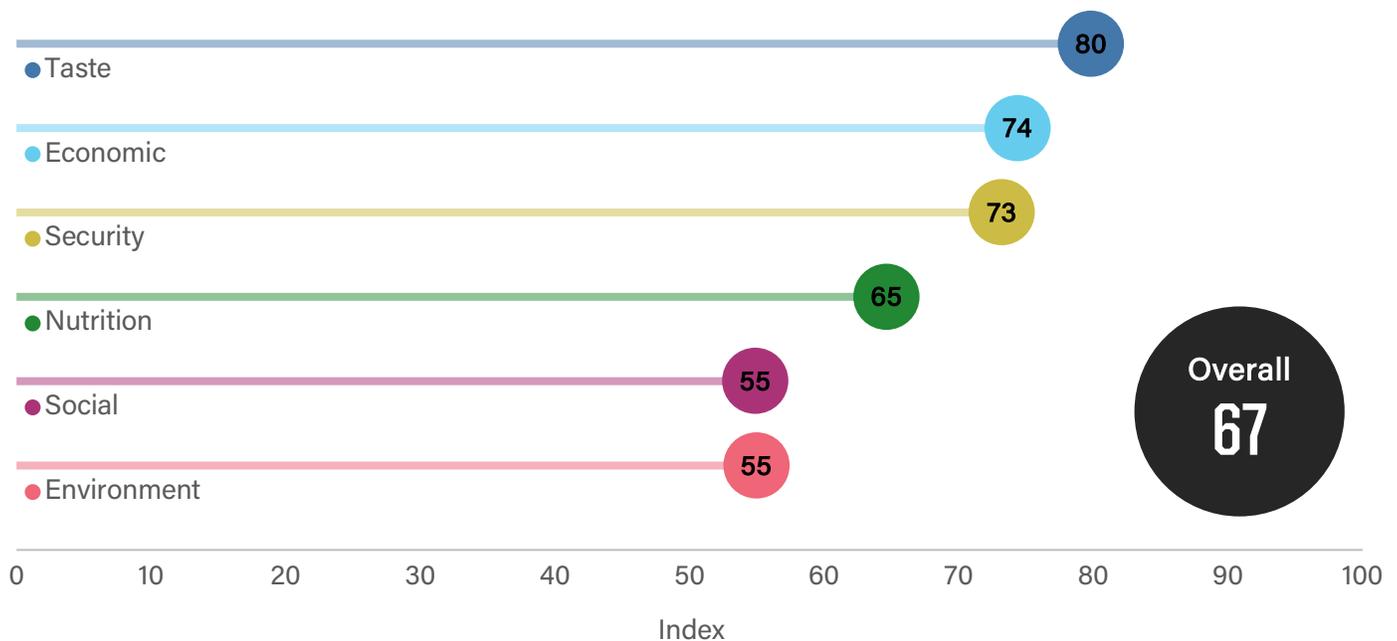
Respondents scored highest on the *taste* indicator (80) while scoring lowest on the *social* and *environment* indictors (55). These scores demonstrate that consumers are largely buying foods that meet their taste needs, make them feel good, or are visually appealing. Furthermore, consumers are buying fewer foods that are good for the environment or society, such as food that is produced with a lower land, water, and greenhouse gas footprint or produced humanely for both animals and workers. Because the SFP Index is designed to track changes in behaviors, subsequent surveys will reveal whether consumers are increasingly or decreasingly purchasing food based on sustainability components like environmental or social well-being.

What attributes do Americans most value when purchasing food?

Respondents were asked to allocate 100 points to six different attributes based on their importance when purchasing food. These different attributes closely reflect the six components of the SFP Index. Respondents most valued *taste*, which reflects the high *taste* score on the SFP Index. Respondents least valued *environmental impact* and *social responsibility*, which similarly tracks with the relatively low *environment* and *social* scores on the SFP Index. However, *nutrition* appears to be valued moderately high by respondents while it scores comparatively lower on the SFP Index.

Figure 2. Share of Points Allocated to Food Attributes
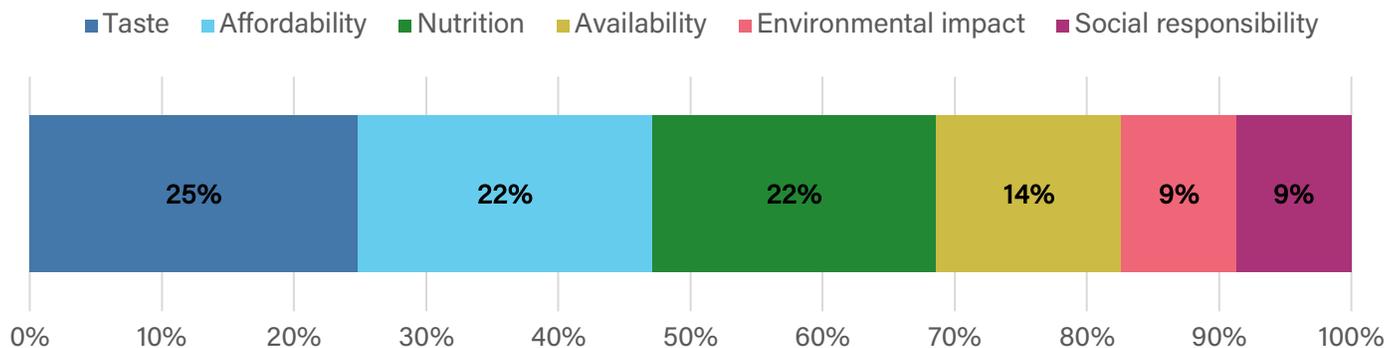
Nutrition
Amount and type of fat, protein, vitamins, etc. are healthy and nourishing
Environmental impact
Production and consumption improve rather than damage environment
Social responsibility
Farmers, processors, retailers, workers, animals and consumers all benefit
Affordability
Food prices are reasonable, fit within your budget, and allow you lots of choices
Availability
Enough safe and desirable food is easy to find and physically accessible
Taste
Flavor and texture in your mouth are pleasing and high quality

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FOOD EXPEDITURES

How much are Americans spending on food?

Respondents were asked to estimate their weekly food spending (**Figure 3**). On average, consumers reported spending about $107/week on groceries (FAH) and about $52/week on restaurants and other carryout meals (FAFH). These expenses are about 12-13% higher than the food spending data issued by the Bureau of Labor (BLS) for 2020. As expected, total food spending as a share of household income falls as income increases (**Figure 4**).

Additionally, respondents were asked to estimate inflation of food prices at the grocery store over the last year and predict its rate over the next year. Consumers do not anticipate food price inflation to slow by much through the beginning of 2023. On average, respondents estimated that food prices have increased by nearly 5% compared to January 2021 and predicted food prices will be around 4% higher at this time next January (**Figure 5**).

Figure 3. Weekly Household Food Expenditures

	Food at home (FAH)[ii]	Food away from home (FAFH)[iii]
2020 (year)[*]	$95.04	$45.67
Jan. 2022	$106.83	$51.59

[*]Data collected from the USDL Bureau of Labor Statistics: "Consumer Expenditures – 2020"

Figure 4. Total Food Expenditures as a Share of Income by Annual Household Income

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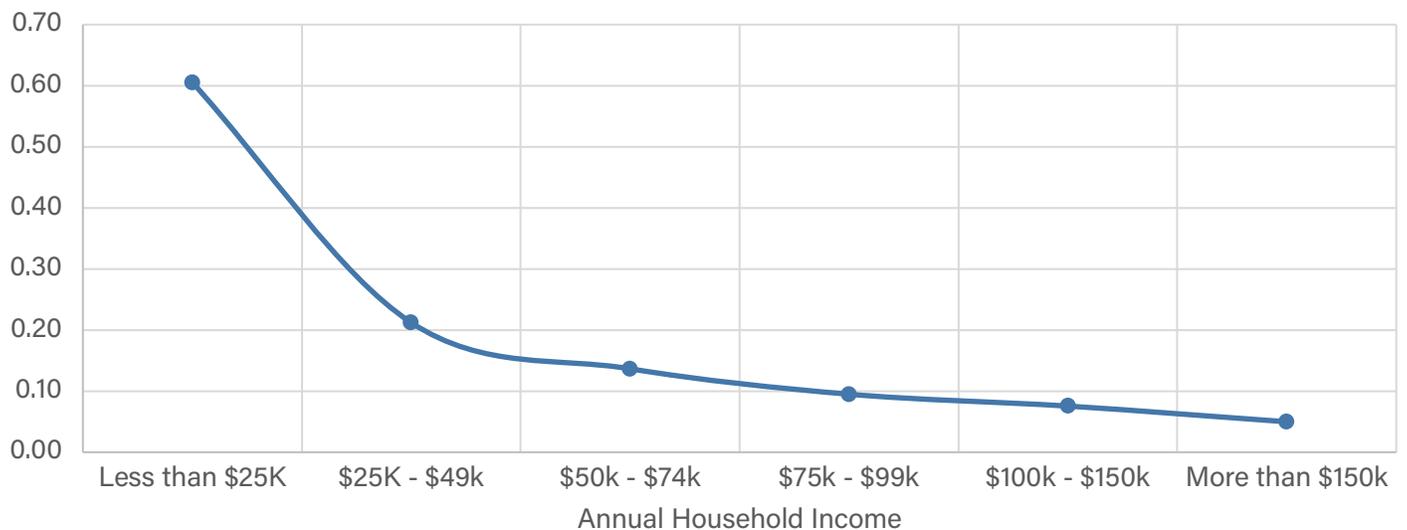
Figure 5. Consumer Estimates of Food Price Inflation

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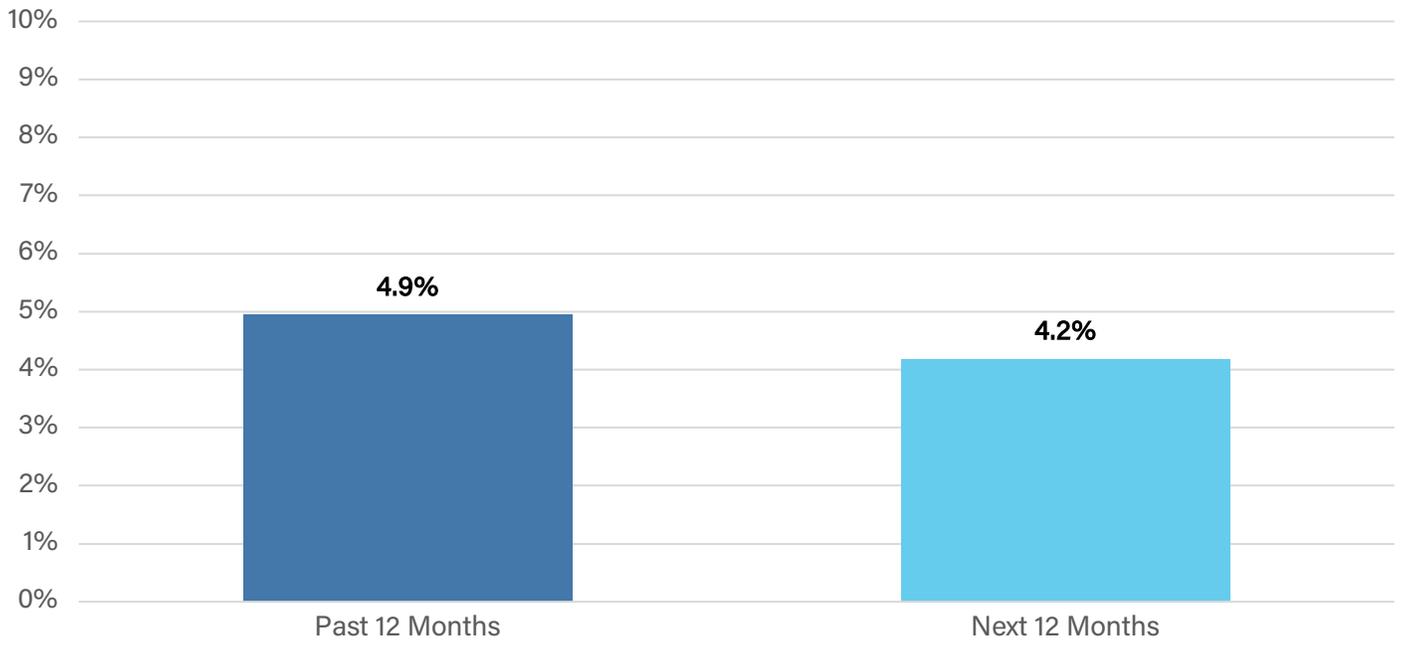
FOOD SECURITY

Are Americans having trouble buying food?

Based on responses to six standardized questions about food eaten in the last 30 days, 15.8% of respondent households were classified as food insecure (**Figure 6**). This rate is 5.3% higher than the annual rate reported by the Department of Agriculture (USDA) for 2020. The rate of very low food security among respondents is responsible for a majority of this difference and is 3.4% higher than the rate reported by the USDA. Additionally, respondents whose households currently receives SNAP benefits were asked how long they been relying on the program. The results show a majority (55%) of these households receiving benefits for less than six months (**Figure 7**).

Figure 6. Household Food Security According to USDA Survey Module: Six-Item Short Form

Food security level	Food secure	Food insecure		
	High[iv]	Low[v]	Very low[vi]	Total
2020 (year)*	89.5%	6.6%	3.9%	10.5%
Jan. 2022	84.2%	8.5%	7.3%	15.8%

*Data collected from the USDA Economic Research Service: "Household Food Security in the United States in 2020"

**Figure 7.** Length of Time Receiving SNAP Benefits

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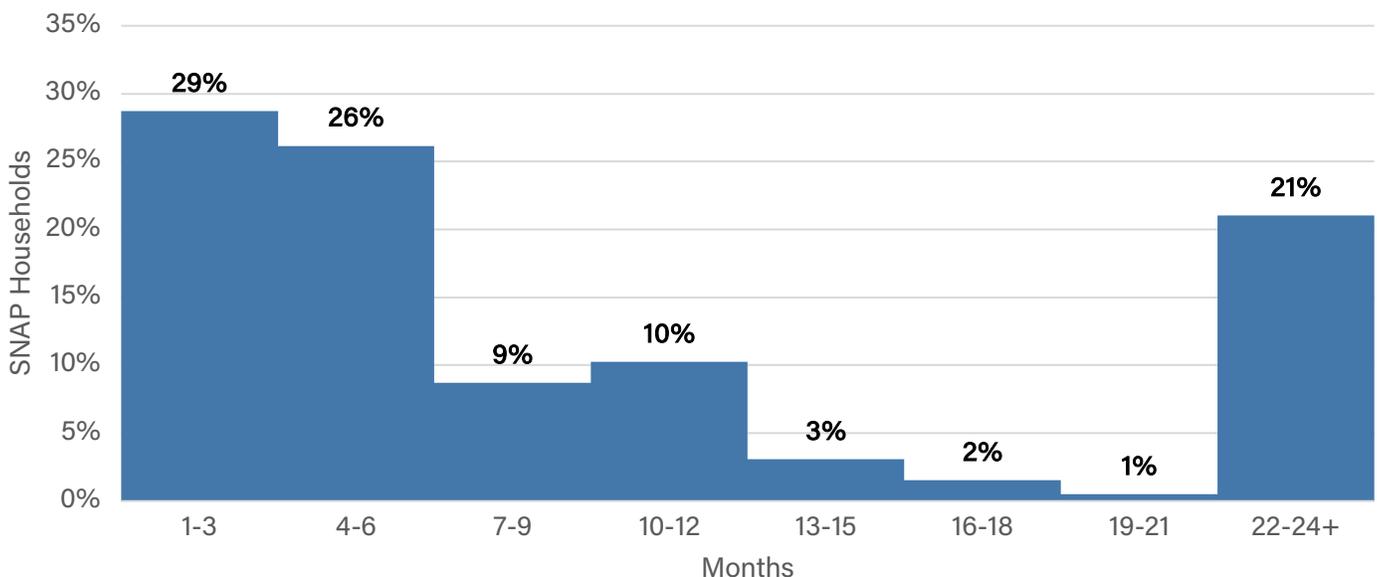
FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents were asked to rate their current diet on a 0-10 scale, with top of the scale representing the ideal diet.[vii] A plurality of respondents (25%) rated their diet as an 8 (**Figure 8**). 70% of respondents were categorized as *thriving* (7-10 on the scale), while only 10% of respondents were categorized as *suffering* (0-4 on the scale). When disaggregated according to food security status, 72% of food secure respondents proved to be *thriving*, while 57% of food insecure respondents were *thriving* (**Figure 9**). A large share of respondents also reported being *rather happy* (55%) and *very happy* (32%) with their diet (**Figure 10**), which is similar to the proportion who said they are *rather happy* (50%) and *very happy* (38%) with their lives (**Figure 11**).

Figure 8. Diet Evaluation Well-Being Rating over the Last 30 Days
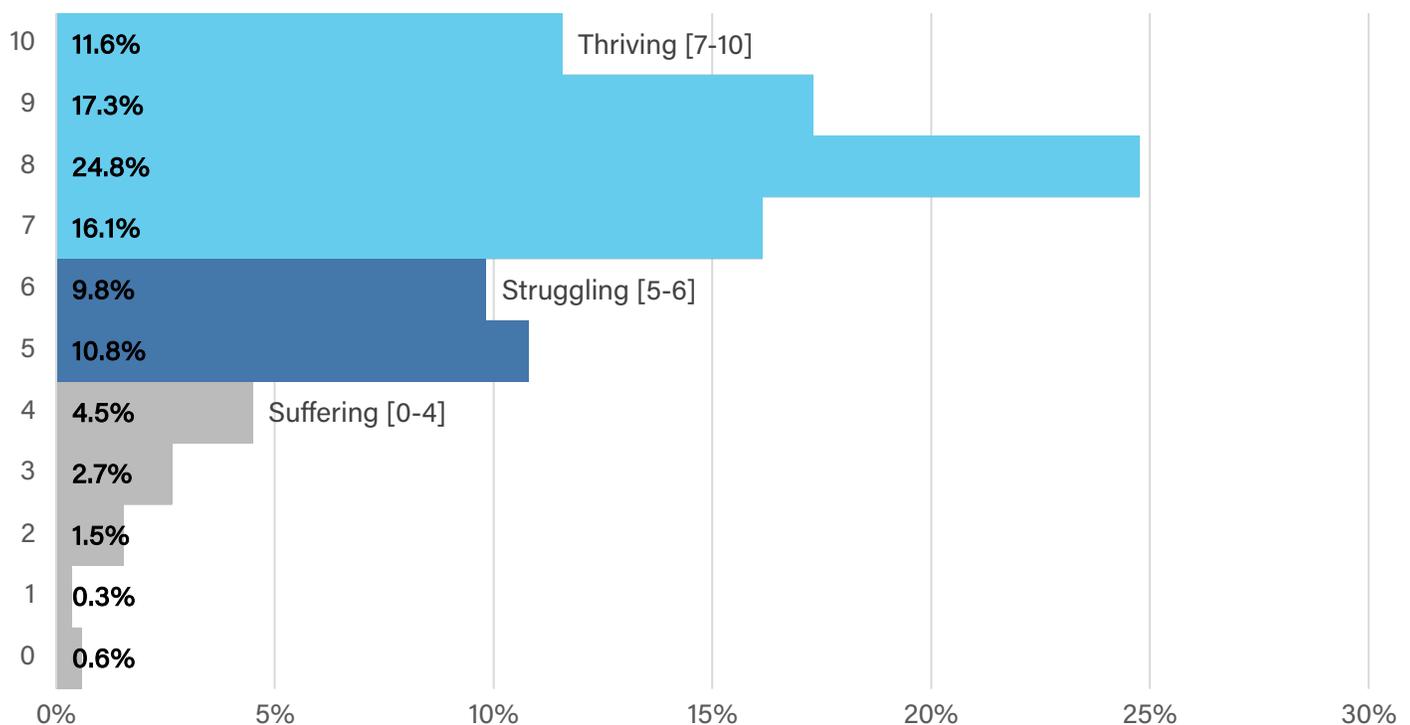
Question: Imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible diet for you and the bottom of the ladder represents the worst possible diet for you. Thinking about the food you bought and ate over the LAST 30 DAYS, on which step of the ladder would you say you personally feel you stand at this time?

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Figure 9. Diet Evaluation Well-Being Rating according to Food Security Status

Legend: ■ Thriving ■ Struggling ■ Suffering

Food Security Status	Thriving	Struggling	Suffering
Food Secure	72%	20%	8%
Food Insecure	57%	26%	16%

(x-axis: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%)
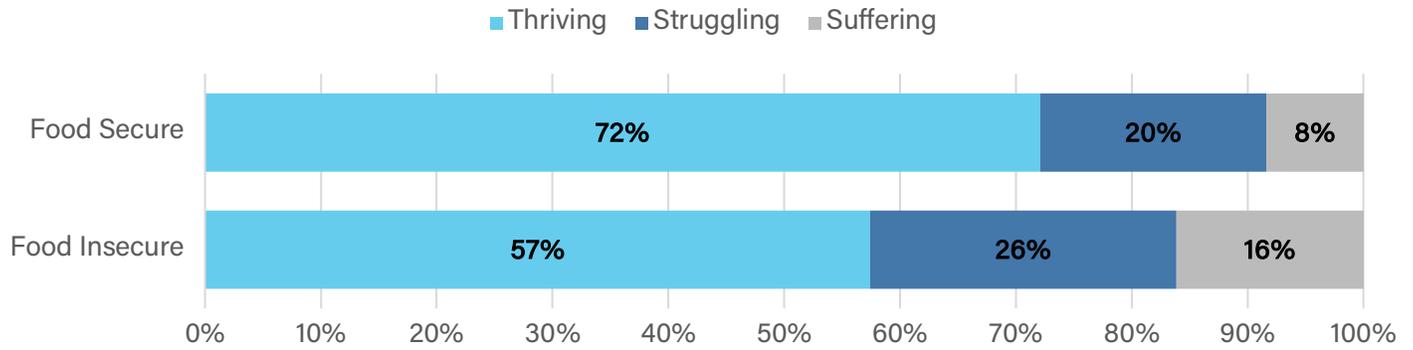
Figure 10. Diet Happiness over the Last 30 Days

Category	Percentage
Not at all happy	2%
Not very happy	11%
Rather happy	55%
Very happy	32%
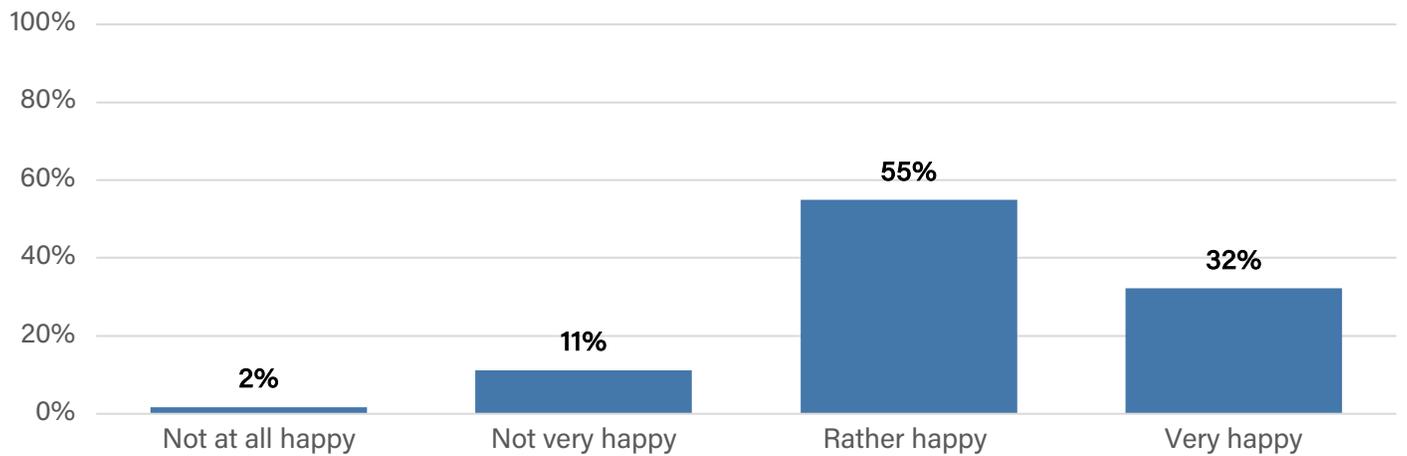
Figure 11. Life Happiness over the Last 30 days

Category	Percentage
Not at all happy	2%
Not very happy	10%
Rather happy	50%
Very happy	38%

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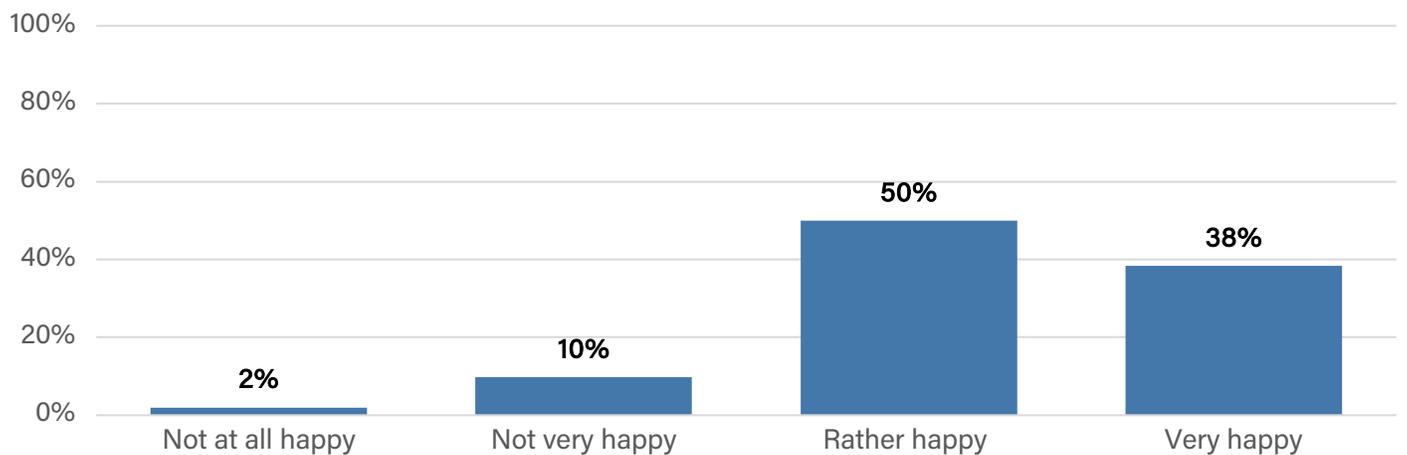
CONSUMER BEHAVIORS

How are Americans navigating their food environment?

A minority of respondents said they always or often select foods that are commonly promoted as more ethical or sustainable (i.e., local foods, wild-caught fish, grass-fed beef, cage-free eggs, organic foods, and plant-based proteins). A majority of respondents reported always or often checking the use-by/sell-by dates or the nutrition labels before buying new foods. Notably, 62% said they always or often took steps to reduce food waste at home, while 54% still reported throwing away food past the use-by date. A majority of respondents also agreed that they never or rarely practice unsafe food consumption (i.e., eating unwashed fruits or vegetables, rare meat, or raw dough).

Figure 12. Consumer Shopping and Eating Habits During the Last 30 Days


Legend: ■ Does not apply ■ Never/Rarely ■ Sometimes ■ Always/Often

Item	Does not apply	Never/Rarely	Sometimes	Always/Often
Chose generic foods over brand name foods	2	25	32	41
Chose local foods over non-local foods	4	23	39	34
Chose wild-caught fish over farm-raised fish	11	33	23	33
Chose grass-fed beef over conventional beef	9	34	26	31
Chose cage-free eggs over conventional eggs	6	40	24	29
Chose organic foods over non-organic foods	3	42	30	26
Chose plant-based proteins over animal proteins	6	48	20	27
Checked the use-by/sell-by date at the store	2	12	15	71
Checked the nutrition label before buying new foods	2	23	25	51
Checked for natural or clean labels	3	35	25	37
Checked for food recalls	3	36	23	37
Checked where my food originated	3	36	28	34
Checked how my food was produced	2	41	25	32
Checked for and avoided GMO ingredients	3	42	23	32
Took steps to reduce food waste at home	3	12	23	62
Threw away food past the use-by date	4	24	20	54
Recycled food packaging	2	28	28	41
Composted food scraps	5	54	17	25
Ate fruits and vegetables without washing them	1	57	20	22
Ate rare or undercooked meat	4	66	12	18
Ate raw dough or batter	4	65	15	17

Who do Americans trust to inform them about healthy and sustainable food?

The sources of information that respondents most trust on issues of healthy and sustainable food are also the sources to which respondents pay the most attention (**Figure 13**). Government agencies such as the Department of Agriculture (USDA) and the Food and Drug Administration (FDA) and medical professionals like primary care physicians (PCP) and the American Medical Association (AMA) scored highest on trustworthiness and relevance. Food corporations such as McDonald's and Chipotle and conservative news sources like Fox News and Joe Rogan scored lowest on both trustworthiness and relevance. Additionally, across demographic categories—i.e., sex, age, income, political party, and education—party affiliation (Republican vs. Democrat) demonstrated the largest gap in overall trust in food-related information sources (**Figure 14**).

Figure 13. Trustworthiness and Relevance Index of Food-Related Information Sources
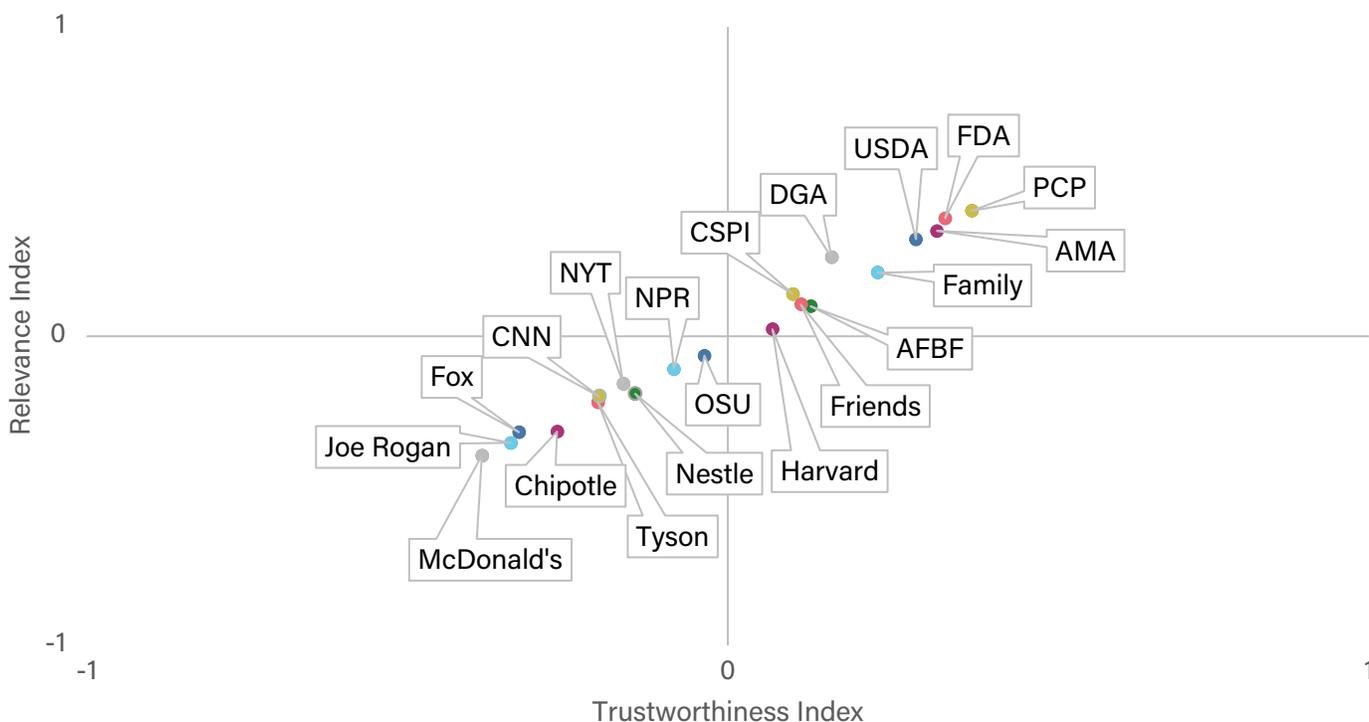
Question 1: How much do you <u>trust</u> information about healthy and sustainable food from the following sources? Select the 5 most trusted sources and 5 least trusted sources.

Question 2: How much do you <u>pay attention to</u> information about healthy and sustainable food from the following sources? Select the 5 most relevant sources and 5 least relevant sources.

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Figure 14. Overall Trust in Food-related Information Sources by Demographic Category

Sex	Female ⬤—⬤ Male	
Age	40 or older ⬤⬤ Younger than 40	
Household income	Less than $75k ⬤—⬤ $75k or more	
Political party	Republican ⬤——⬤ Democrat	
Education	No college ⬤—⬤ College	

1　　　　　　2　　　　　　3　　　　　　4　　　　　　5

Mean (1 = Do not trust at all; 5 = Completely trust)
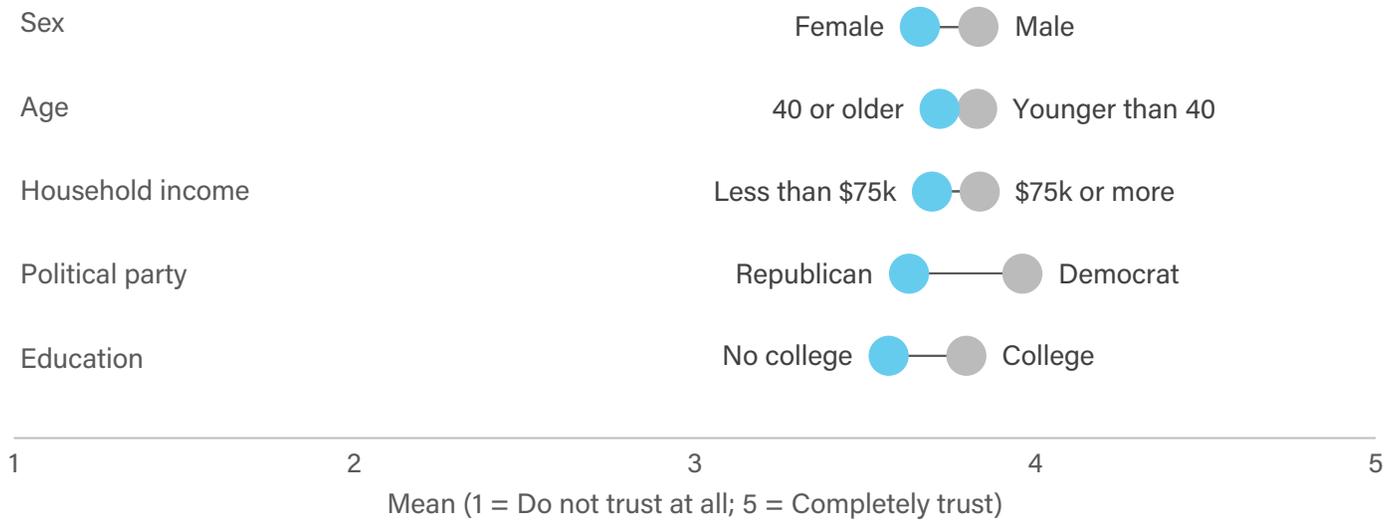
Question: Thinking about where you usually get your information on food and nutrition, how much do you trust these sources overall?

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FOOD POLICY

Where do Americans stand on food policy?

Increases in agricultural research funding and conservation program funding shared large support among both Democrat and Republican respondents (**Figure 16**). In contrast, zoning regulations restricting where fast food restaurants can be located and a 25% tax on beverages with added sugar were the only policies that a majority of respondents opposed (**Figure 15**). Compared to Republicans, Democrat respondents favored every policy by at least 13 points, but expanding SNAP benefits had the largest gap in favorable support between Democrats and Republicans. See **Figure 17** on the next page for more details on the exact policies posed to respondents.

Figure 15. Support for Food and Agriculture Policies
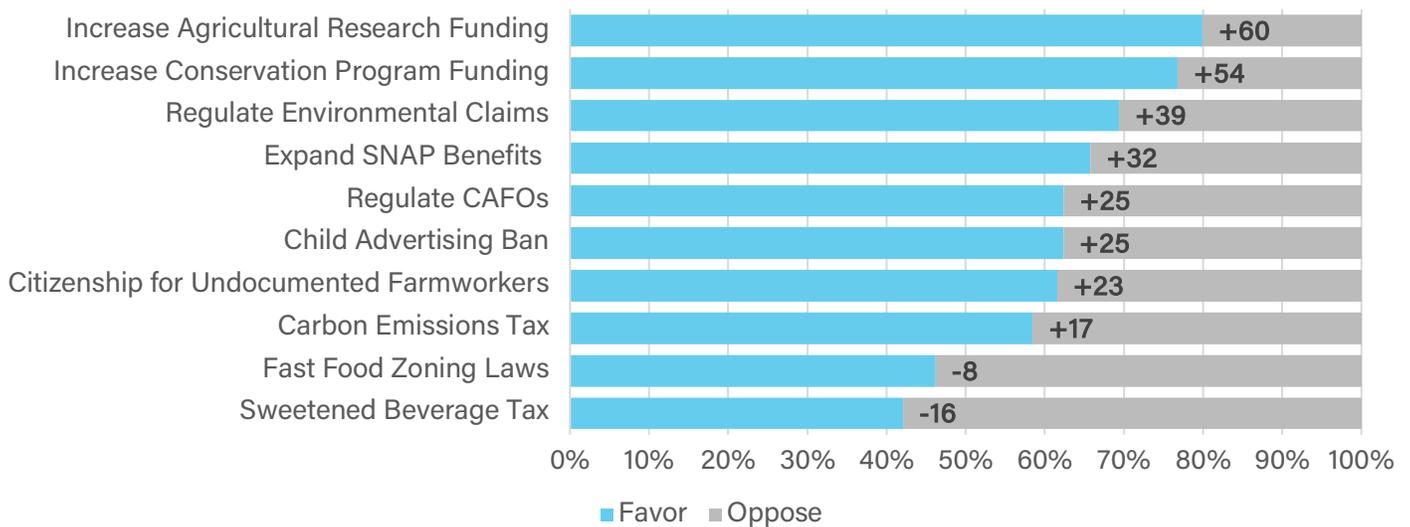
Figure 16. Favorable Support for Food and Agriculture Policies by Political Party Identification

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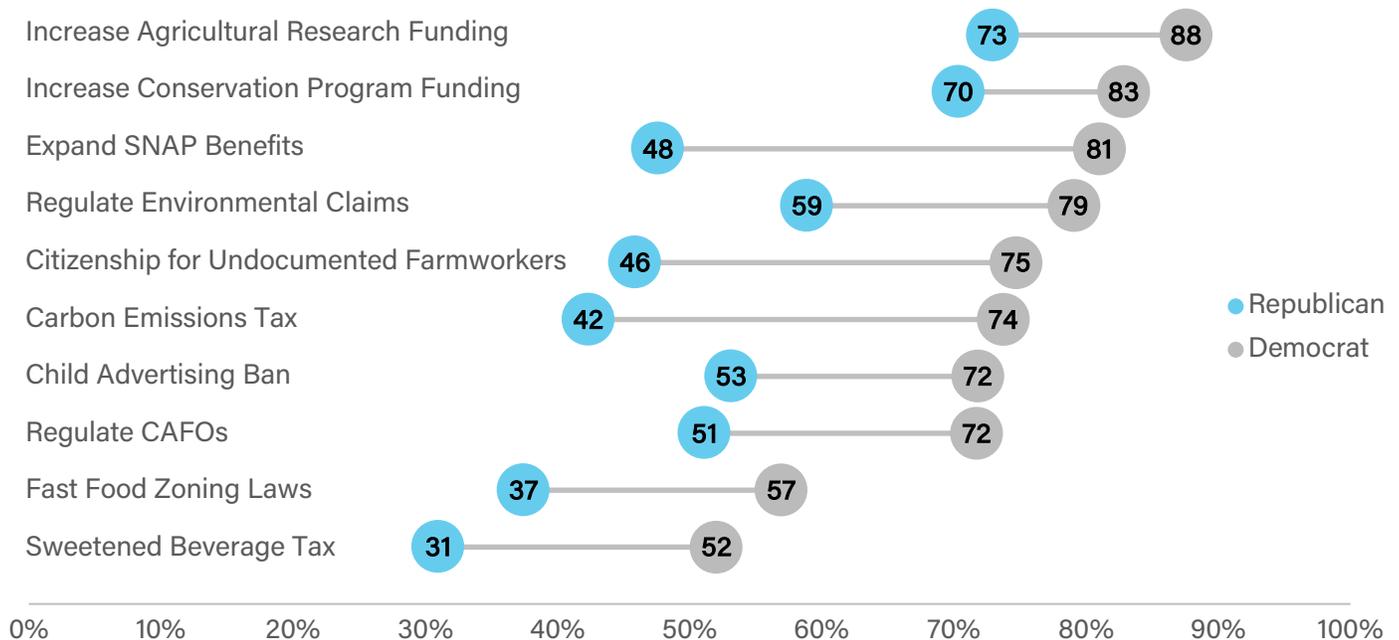
Figure 17. List of Food and Agriculture Policies Asked of Respondents

Agricultural Research Funding
Increase agricultural research funding to develop crops more resistant to heat, drought, and flooding through plant breeding and biotechnologies.

Conservation Programs Funding
Increase conservation program funding to pay farmers and ranchers to adopt climate-smart practices and help improve environmental outcomes.

Citizenship for Undocumented Farmworkers
Enable undocumented farmworkers and their immediate family members to obtain lawful immigration status and a pathway to citizenship.

Carbon Emissions Tax
Impose a fee on all food producers according to the carbon footprint of their products unless they take clear action to reduce their greenhouse gas emissions.

Expand Supplemental Nutrition Assistance Program
Permanently extend and expand pandemic-related changes to SNAP that increase benefits and lower barriers to participation.

Sweetened Beverages Tax
Increase the prices of drinks with added sugar by 25%. Examples of affected beverages include carbonated soft drinks (soda), sports drinks, and energy drinks.

Child Advertising Ban
Prohibit marketing on TV, via online video streams, etc. of unhealthy food and beverage products such as junk foods and sodas to children.

Regulate Environmental Claims
Impose new regulations on the environmental claims food companies can make about their products. Examples include claims about water, soil, and air pollution.

Fast Food Zoning Laws
Implement zoning regulations to restrict the number of fast food outlets and drive-through facilities near schools, parks, hospitals, and other public areas.

Regulate Confined Animal Feeding Operations
Place moratorium on new and expanding CAFOs, phase out the largest CAFOs, and pay farmers to transition out of operating CAFOs.

Data Quality Check
Please select Favor to demonstrate that you are reading each question. Thank you again for helping us ensure that we are collecting quality data.

Why are retail meat prices rising?

A majority of respondents (51%) blamed COVID-related shutdowns for the dramatic increase in meat prices over the last year, but the top five causes also included labor shortages across supply chains, higher prices for animal feed, higher energy prices, and higher wages across supply chains (**Figure 18**). Of note, market concentration in the meat packing industry has received national media attention in recent months. The Biden administration argues that industry consolidation is partly responsible for climbing grocery prices, yet a relatively small percentage of respondents attributed high prices at the store to concentration and market power.

Figure 18. Causes of Meat Price Inflation as Chosen by Respondents*
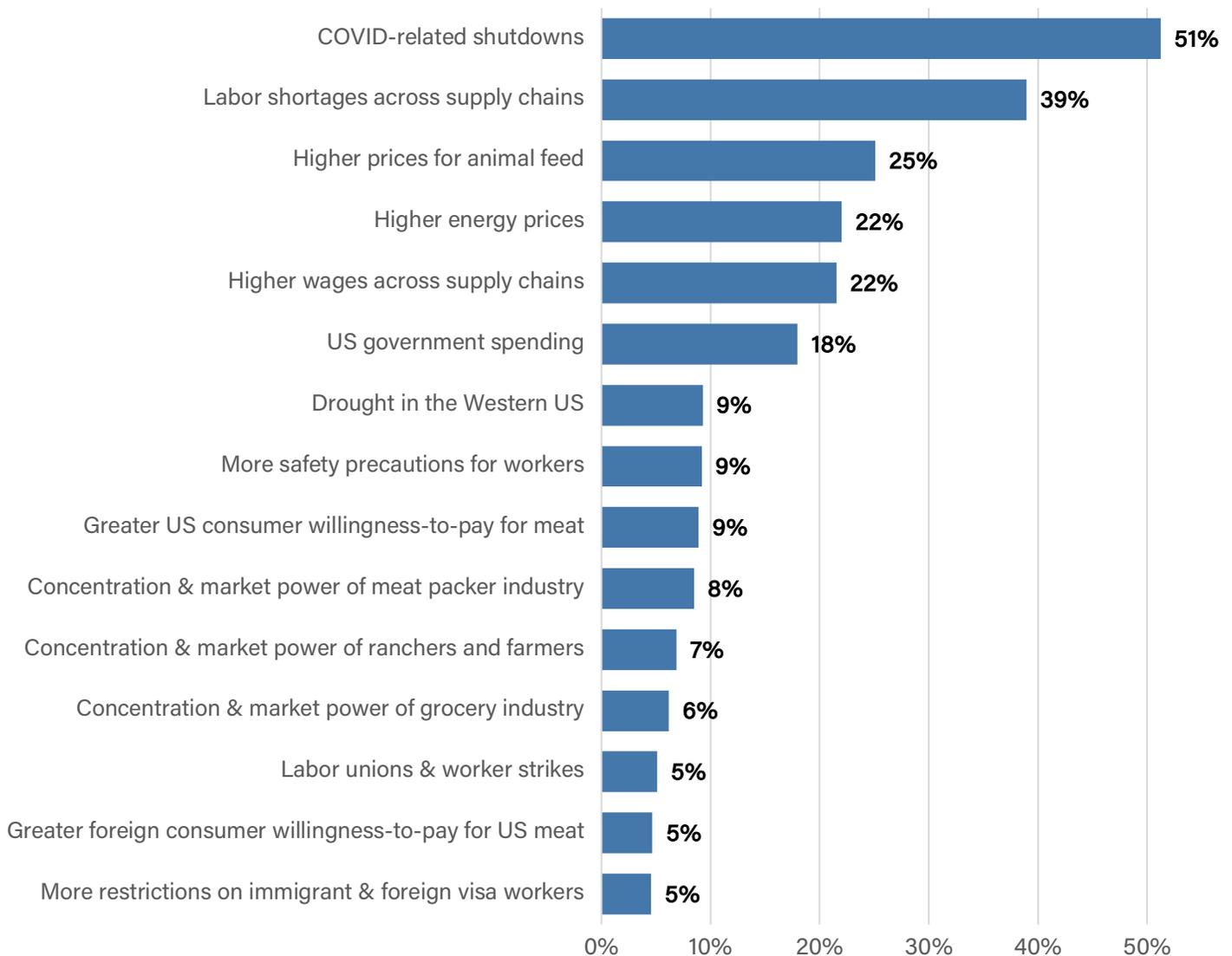
*Percentages add up over 100% because respondents were allowed to choose up to three options

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ENDNOTES

[i] The market research firm Dynata conducted the survey data collection online over a three-day period from January 18-20, 2022. The eligible population included U.S. adults ages 18+. A combination of quotas and survey weights were used to ensure a demographically balanced sample by age, sex, race, census region, income, and SNAP participation. In subsequent surveys, every respondent from the previous month will be recontacted. Assuming a retention rate of <30%, the rest of the sample will be filled in with a new pool of respondents. Data collection for every survey will begin on the third Monday of each month, unless otherwise dictated by holidays or extenuating circumstances.

[ii] 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.

[iii] 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.

[iv] 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.

[v] 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.

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

[vii] 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.

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