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CONSUMER FOOD INSIGHTS

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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.¹ Visit purdue.ag/CFDAS for more details.

In this issue, we look closer at how respondents with differing educational attainment have answered our survey. We aggregated seven months of data (Jan. - Jul. 2022) to compare consumer behaviors across four groups based on their education: high school degree or less (\leq HS), some college or 2-year college degree (\approx AA), four-year college degree (\approx BA), and graduate degree (Grad).² New questions this month also ask about the consumer response to higher food prices this summer. Interested in additional analysis? Contact cfdas@purdue.edu to learn how you can join our industry consortium.

KEY INSIGHTS FROM JULY

- The Sustainable Food Purchasing (SFP) Index has been unaffected by higher food prices.
- Weekly food spending has risen by 3% from June, showing no signs of falling.
- Consumer expectations for food price inflation have fallen slightly but remain elevated.
- More consumers are looking for sales and switching to generics compared to five months ago.
- Food insecurity in 2022 is highest among those without any college education.
- The most educated consumers report being most satisfied with their diets.
- The importance of nutrition increases as consumers complete more years of college.
- Gardening, vegetarianism, and recycling are most popular among those with a graduate degree.

SFP INDEX
69_{/100}

FOOD INSECURITY
16%

FOOD SPENDING
\$191_{/WEEK}

FOOD HAPPINESS
87%

SUSTAINABLE DIETS

Is American food purchasing sustainable?

The SFP Index remains in the high 60s, suggesting high inflation has neither increased nor decreased food sustainability (**Figure 1**). We see further that consumers with a college education score higher compared to those with only a high school degree or less (**Figure 2**). Completing just a couple years of college dramatically increases scores across every sub-indicator. But, completing additional years of college boosts only the Social, Environment, and Nutrition indicators while slightly increasing both the Security and Economic indicators.

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 overall SFP Index comprises of six components—Nutrition, Environment, Social, Economic, Security, and Taste—correlating with the different strategies for achieving food systems transformation. More information on these components and the SFP scoring procedure is described on the CFDAS [website](#).

Figure 1. Sustainable Food Purchasing Index, January - July 2022

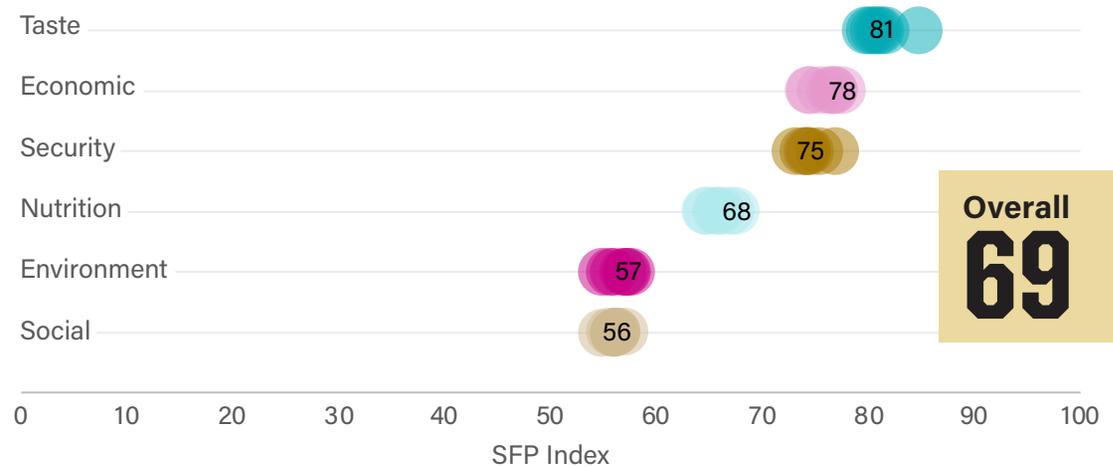
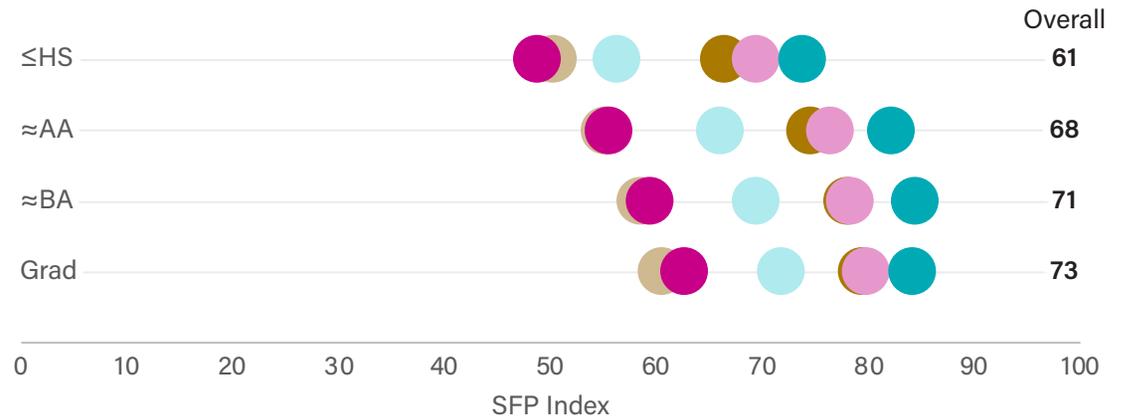


Figure 2. Sustainable Food Purchasing Index by Education Level, January - July 2022

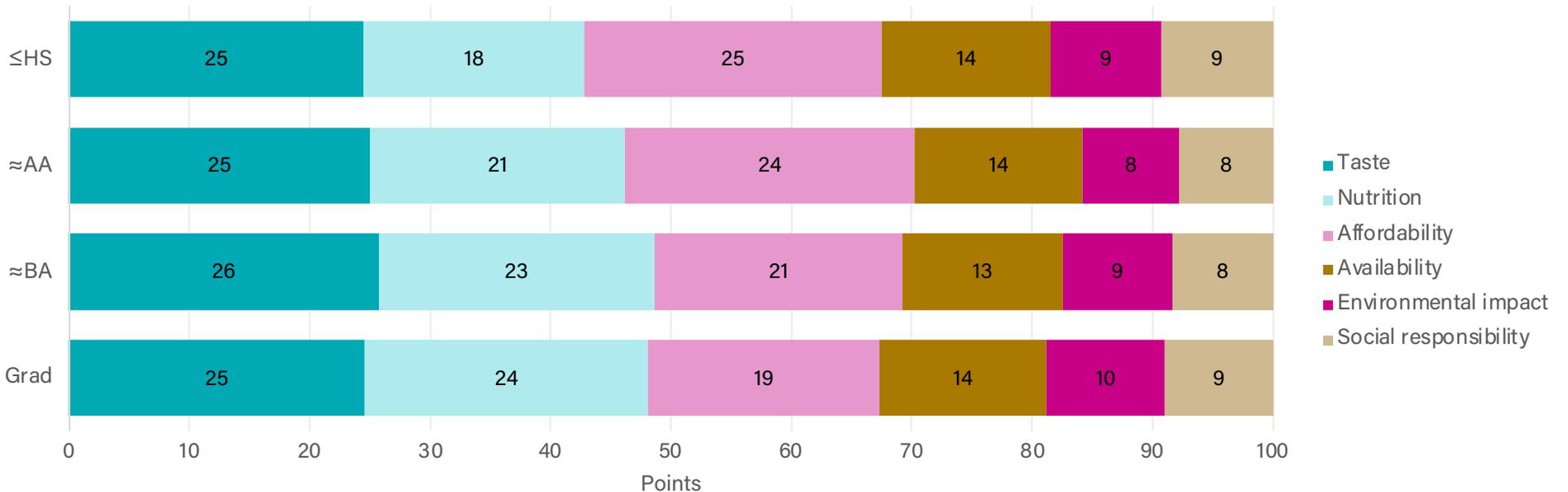


FOOD VALUES

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 shopping for food (**Figure 3**). These attributes closely reflect the components of the SFP Index. Similar to the Index, how much consumers value these sustainability components has remained stable from month to month. Looking closer at how these values break down across education levels, their distributions diverge moderately. On average, consumers with a college degree value nutrition more than those without a degree, and those with no or little college education value the affordability of their food more than those with a degree. Notably, the values assigned to taste, availability, environmental impact, and social responsibility are all relatively consistent across educational attainment.

Figure 3. Share of 100 Points Allocated to Food Attributes by Education Level, January - July 2022



FOOD EXPENDITURES

How much are Americans spending on their food?

Respondents were asked to estimate their weekly food spending (Figure 4). On average, consumers reported spending \$121/week on groceries (FAH) and \$70/week on restaurants and carryout meals (FAFH).³ In the context of high food inflation, FAH expenditures were rising from January to May but appear to leveling off, which indicates consumers may be adjusting their purchasing in response to higher prices. However, FAFH continues to inch up, which is consistent with other data that suggests Americans continue to spend at restaurants and bars despite higher prices. In addition, consumers estimates of annual food price inflation for both the past 12 months and next 12 months have dipped slightly (Figure 5).

Please note, our methodology for calculating consumer expectations for food price inflation (Figure 5) has been updated, resulting in higher monthly estimates but a similar trend line.

Figure 4. Weekly Household Food Expenditures, January - July 2022

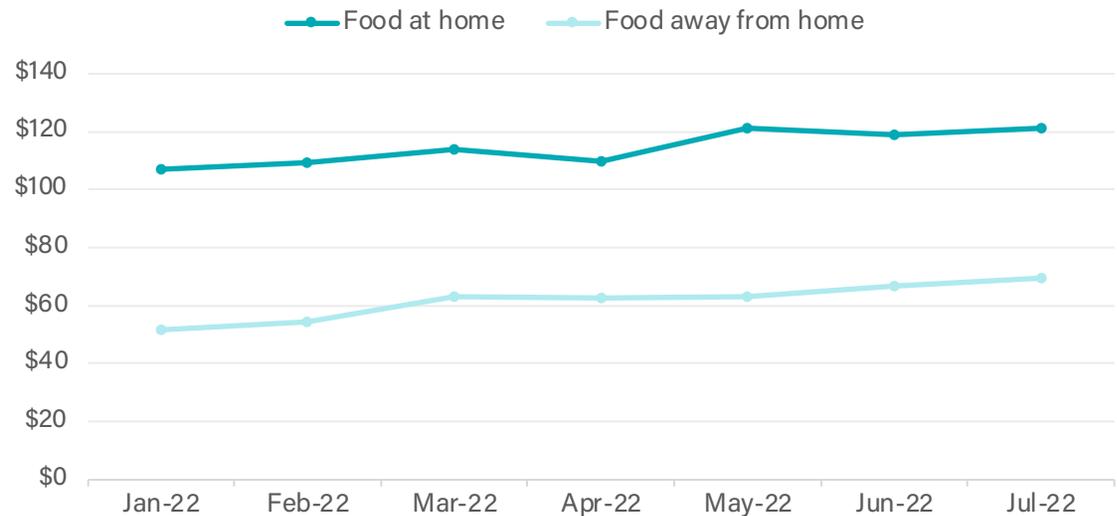
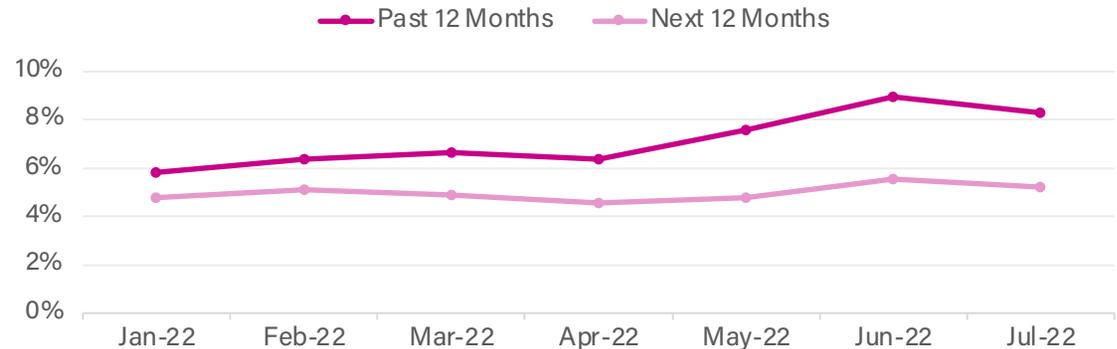


Figure 5. Consumer Estimates of Food Price Inflation, January - July 2022



FOOD EXPENDITURES

How are higher prices changing American spending behavior?

For most Americans, higher prices at the grocery store did not impact their Fourth of July cookout. About 1 in 5 consumers said they had to buy less food than usual for the holiday (**Figure 6**). Though, a majority of survey respondents (60%) said they are eating out less than they want to this summer, which suggests people are having to make trade offs (**Figure 7**). It is possible, however, that Americans would always prefer to eat out at restaurants more than they currently do.

In response to higher food prices, **Figure 8** further shows consumers are making new changes to their shopping compared to February. Five months ago, 31% of Americans had made no change compared to 22% today. The largest share of consumers (28%) now reports seeking out more sales and discounts, while more people are also switching to generic, using coupons, cutting out non-essentials, and shopping at cheaper stores. Importantly, a small share of people are buying more bulk foods which is good in the context of inflation.

Figure 6. Did you buy less food than you usually do for the 4th of July holiday?, July 2022

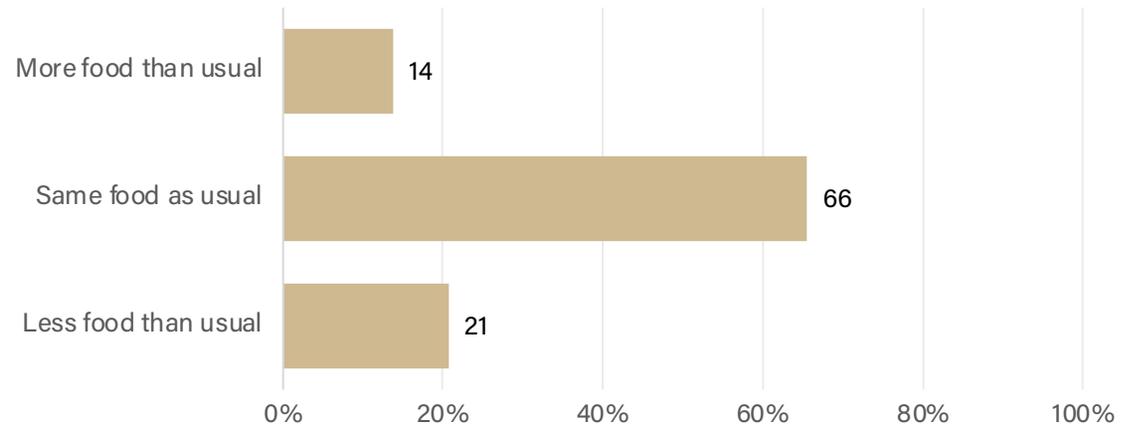
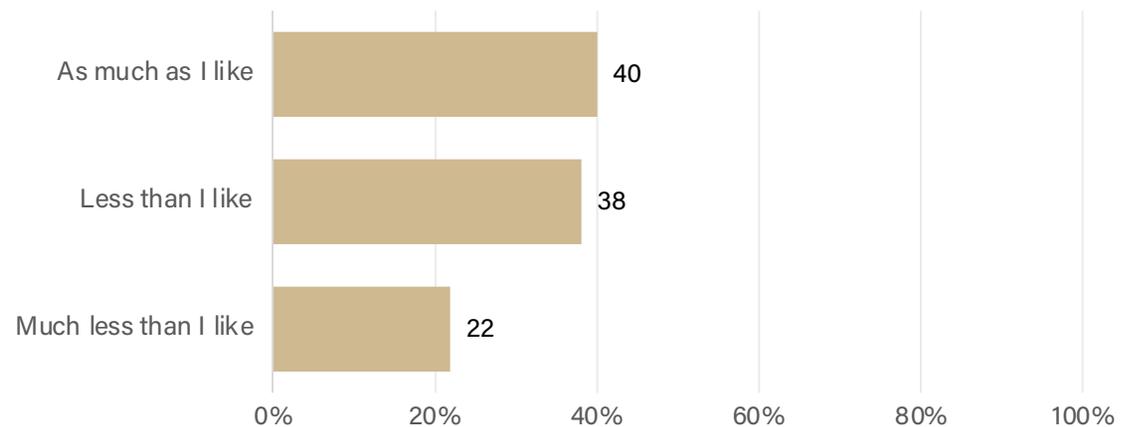


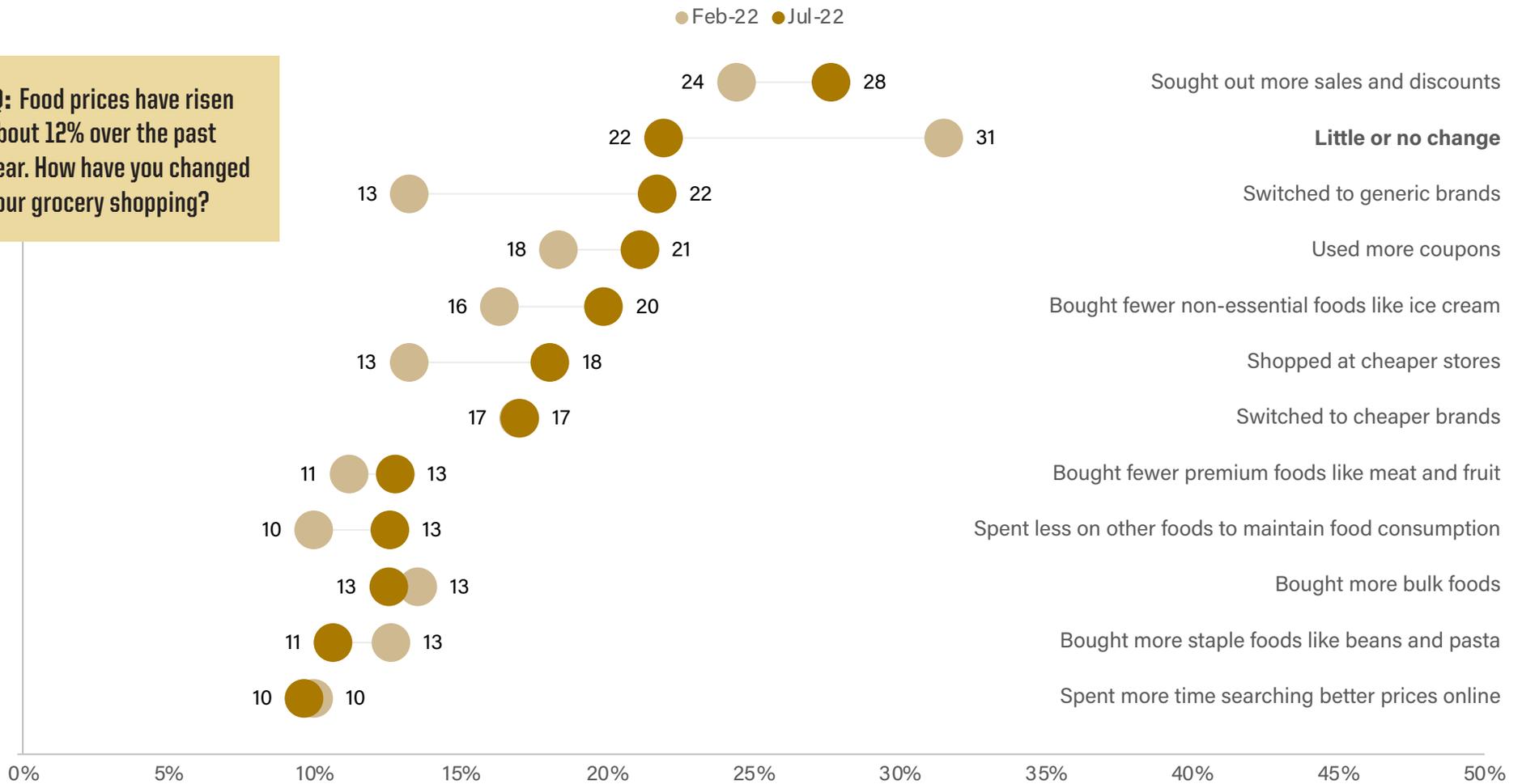
Figure 7. Have you eaten out as much as you would like to this summer?, July 2022



FOOD EXPENDITURES

Figure 8. Changes to Grocery Shopping in Response to Food Price Inflation, February & July 2022

Q: Food prices have risen about 12% over the past year. How have you changed your grocery shopping?



*Percentages add over 100% because respondents were allowed to choose up to three options.

FOOD SECURITY

Are Americans having trouble buying food for their families?

Based on responses to six standardized questions about food bought and eaten in the last 30 days, we estimate the national rate of food insecurity to be 16%.⁴ **Figure 9** shows this rate remains steady at the national level. However, significant disparities exist between groups based on educational attainment (**Figure 10**). Since January, over 30% of households without any college education have experienced or are experiencing food insecurity compared to just 4-6% of households with at least a 4-year degree. Because we know college graduation to be closely correlated with greater income and wealth, we can hypothesize this is the main intervening factor. We see that completing just a couple years of college (\approx AA) reduces food insecurity by over 10%.

Almost **50% of households without a college education** report waiting on their next paycheck to shop for groceries compared to less than **25% of those with at least a 4-year degree**.

Figure 9. Household Food Security According to USDA Survey Module: Six-Item Short Form, January - July 2022

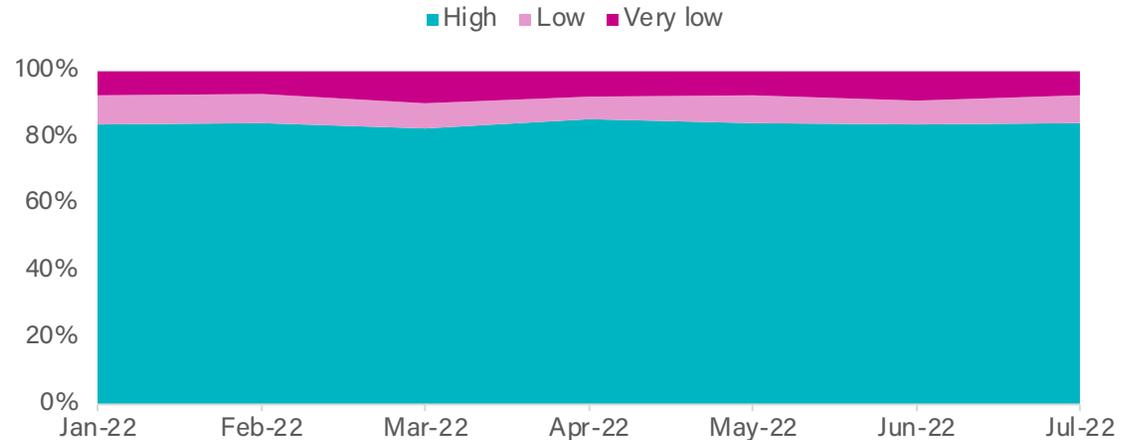
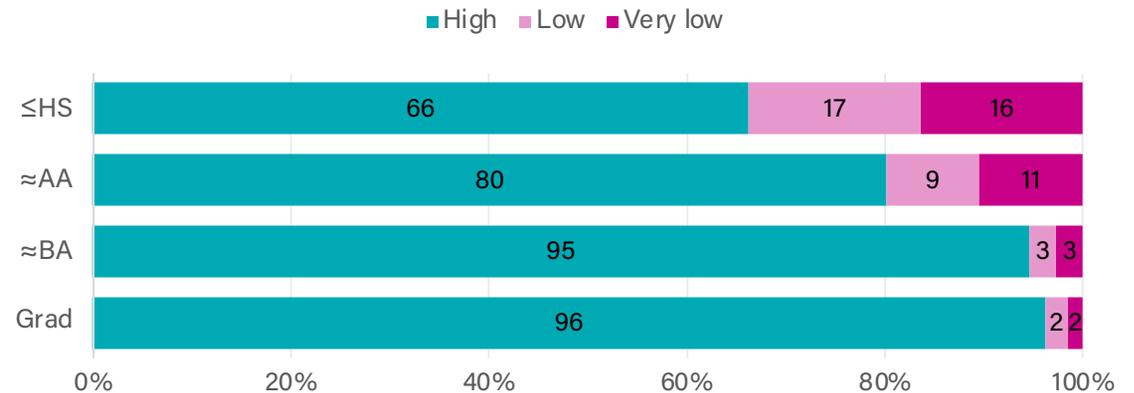


Figure 10. Household Food Security by Education Level, January - July 2022



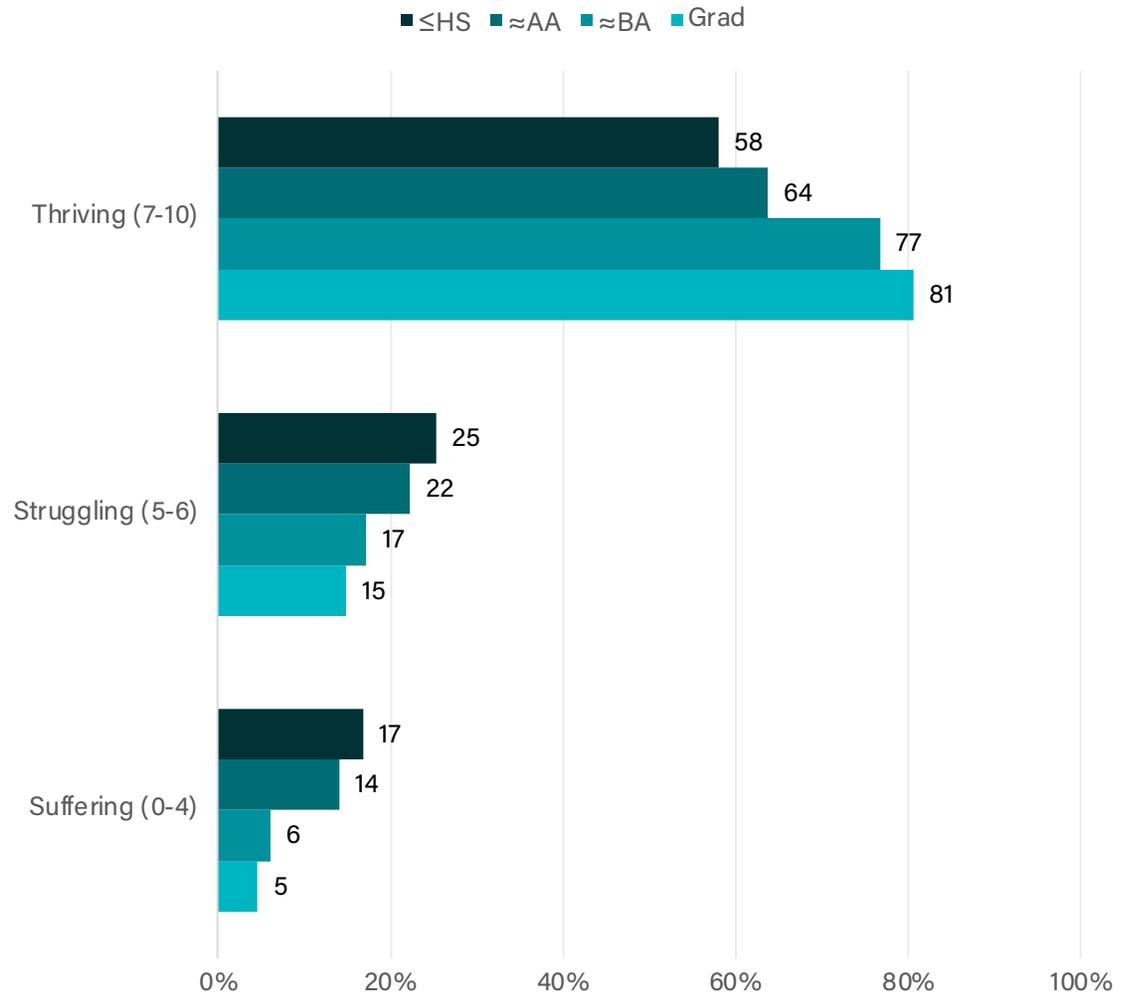
FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents were asked to score their own diet on a 0-10 scale, with top of the well-being scale representing their ideal diet.⁵ 81% of adults with a graduate degree rated their diet as a 7 or above compared to 58% of adults with only a high school degree or less (**Figure 11**). Like previously discussed results, more years of college education correlate with clear improvements in self-reported diet well-being. Similarly, **Figure 12** demonstrates the most educated groups are most happy with the food they bought in the last 30 days. Comparable results are found with regards to overall life happiness (**Figure 13**). However, this increase in happiness associated with higher educational attainment is primarily a result of moving from “rather happy” to “very happy.”

Monthly responses to these well-being and happiness questions are remarkably consistent. Despite a more expensive food environment, **Americans are as satisfied as ever with their food.**

Figure 11. Diet Well-Being Rating by Education Level, January - July 2022



FOOD SATISFACTION

Figure 12. Diet Happiness by Education Level, January - July 2022

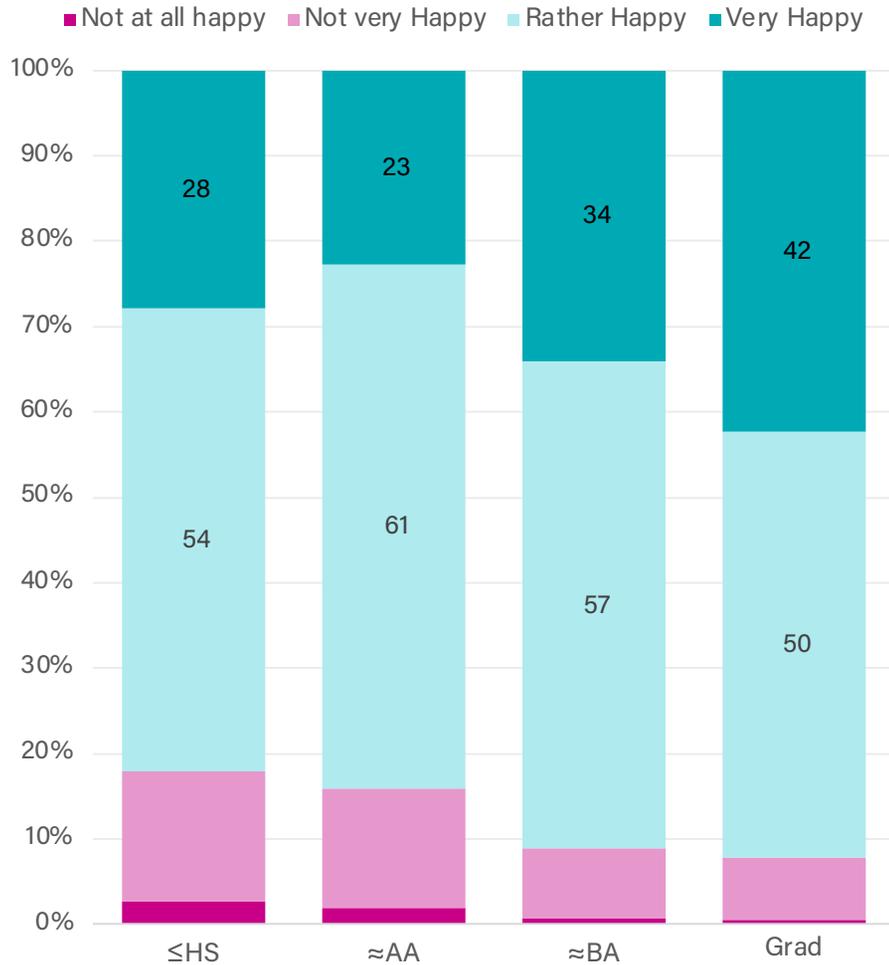
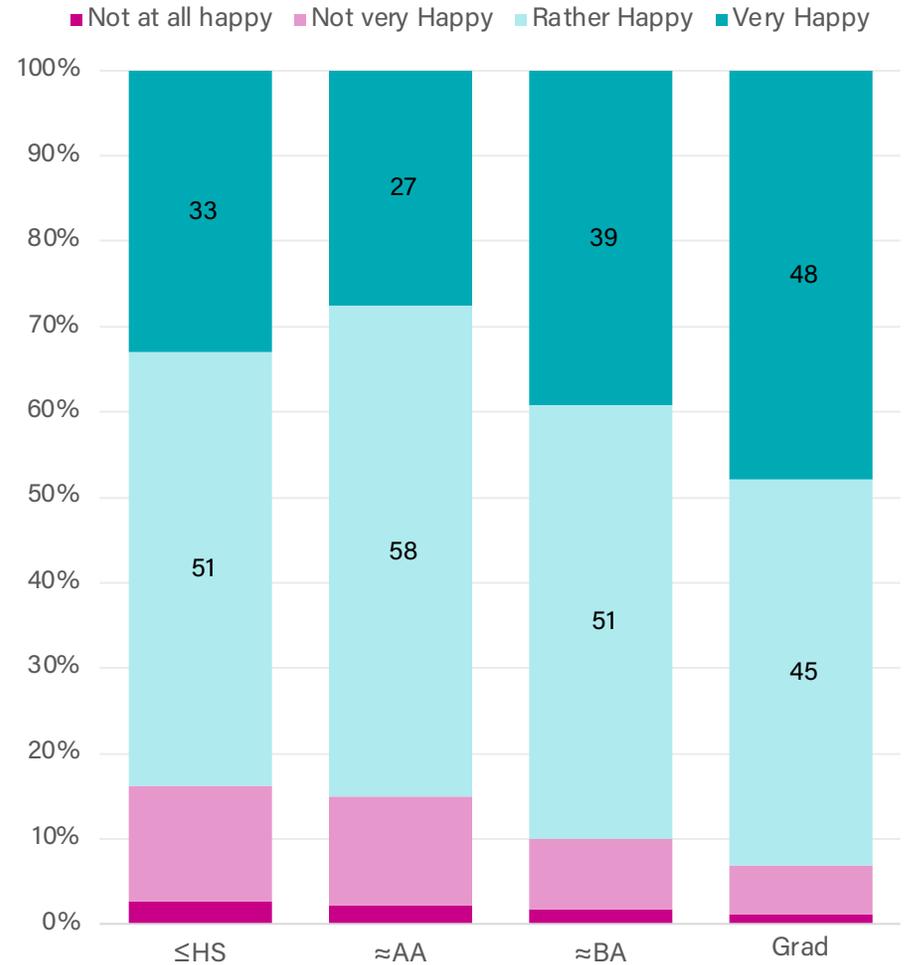


Figure 13. Life Happiness by Education Level, January - July 2022



CONSUMER BEHAVIORS

How are Americans navigating their food environment?

Public perception of home or community food gardening may sometimes evoke images of affluent households. **Figure 14** reveals that, while people with a graduate degree are most likely to garden, those without any college are just as likely as those with a 4-year degree to garden. With respect to vegetarianism and veganism, however, having a graduate degree more than doubles the likelihood of a one eating plant-based diet (**Figure 15**). Interestingly, this rate is the same for all other education levels.

Figure 16 further shows specific consumer food habits broken down by education level. Notably, we observe the most educated groups are more often choosing foods that are typically promoted as more ethical or sustainable (i.e., local foods, wild-caught fish, grass-fed beef, cage-free eggs, and organic foods). Similarly, these consumers with at least a college degree are checking food labeling like GMO ingredients and place of origin more often than those with only a high school degree or less. We see education play out in food waste too, as adults with additional years of college are more likely to take steps to reduce food and recycle food packaging. Behaviors that appear uncorrelated with education include buying generic foods, throwing away uneaten food, and eating unwashed food.

Figure 14. Share of Adults who Food Garden by Education Level, May - July 2022

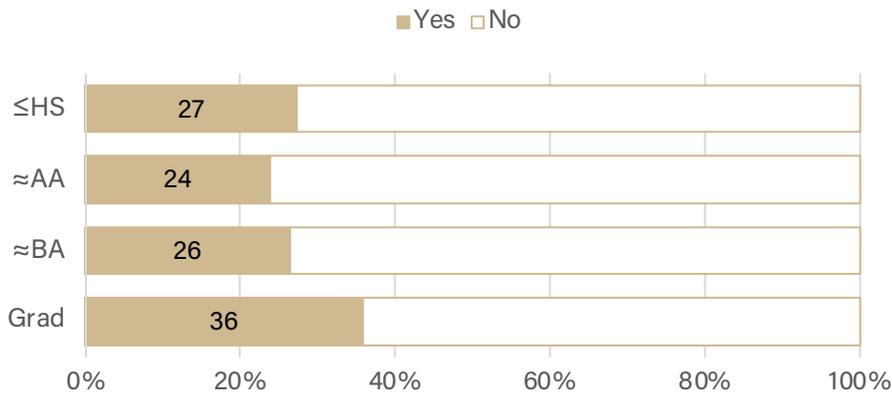
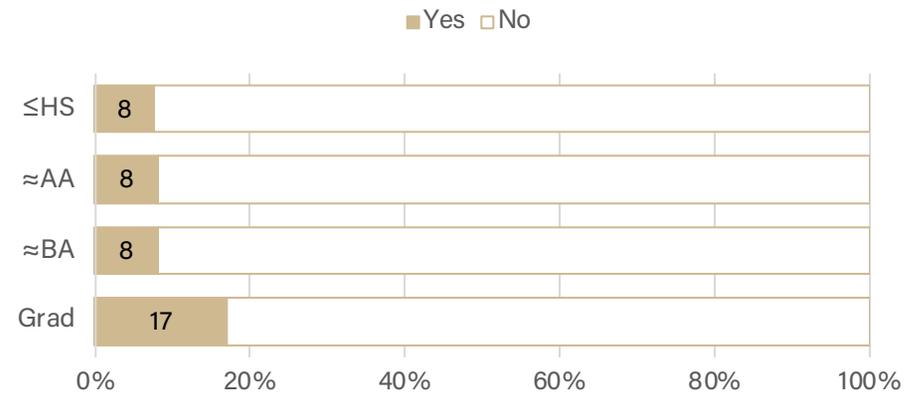


Figure 15. Share of Adults who Identify as Vegetarian/Vegan by Education Level, January - July 2022



CONSUMER BEHAVIORS

Figure 16. Consumer Shopping and Eating Habits by Education Level, January - July 2022

	≤HS	≈AA	≈BA	Grad	
Chose generic foods over brand name foods	3.3	3.4	3.3	3.4	
Chose local foods over non-local foods	3.0	3.1	3.2	3.3	
Chose wild-caught fish over farm-raised fish	2.7	2.9	3.1	3.2	
Chose grass-fed beef over conventional beef	2.8	2.8	3.0	3.1	
Chose organic foods over non-organic foods	2.5	2.6	2.9	3.0	
Chose cage-free eggs over conventional eggs	2.6	2.7	2.9	3.0	
Chose plant-based proteins over animal proteins	2.4	2.4	2.6	2.8	
Checked the use-by/sell-by date at the store	3.8	4.1	4.1	4.1	
Checked the nutrition label before buying new foods	3.1	3.4	3.5	3.7	
Checked for natural or clean labels	2.8	3.0	3.1	3.2	
Checked where my food originated	2.7	2.9	3.0	3.2	
Checked for food recalls	3.0	2.9	2.8	3.1	
Checked for GMO ingredients	2.6	2.7	2.9	3.0	
Checked how my food was produced	2.6	2.8	2.9	3.0	
Mean Score					
					5 Always
					4 Often
					3 Sometimes
					2 Rarely
					1 Never
Took steps to reduce food waste at home	3.5	3.8	3.8	3.9	
Recycled food packaging	3.1	3.4	3.7	3.8	
Threw away food past the use-by date	3.4	3.2	3.2	3.4	
Composted food scraps	2.4	2.4	2.4	2.6	
Ate fruits and vegetables without washing them	2.4	2.2	2.3	2.5	
Ate rare or undercooked meat	2.0	1.9	2.0	2.2	
Ate raw dough or batter	2.0	1.9	2.0	2.2	

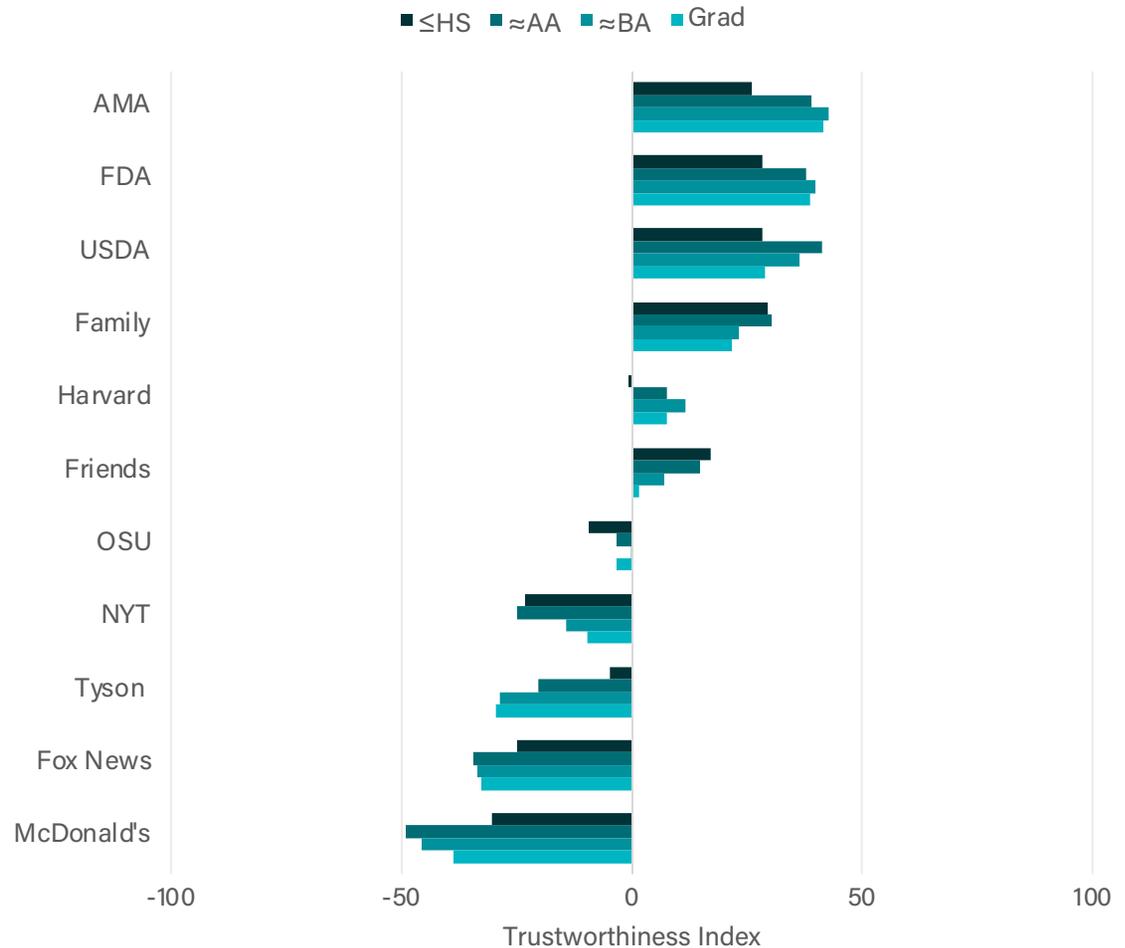
CONSUMER TRUST

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

We asked survey respondents to select their five most trusted and five least trust sources of food-related information and scored these sources on a Trustworthiness Index. When we disaggregate this index by education level, significant differences emerge (**Figure 17**). Specifically, consumers with more education compared to others generally trust institutions (AMA, FDA) more while consumers with less education compared to others tend to trust individuals (family, friends) more. People with a college education also distrust food companies (McDonald's, Tyson Foods) much more than those without any years of college. Interestingly, Harvard is also considered more trustwothy than Ohio State across education levels.

UPDATE: Trust in the **Food and Drug Administration** appears to have rebounded moderately from the past month, perhaps, because the agency has fallen out of news headlines.

Figure 17. Trustworthiness Index of Food-related Information Sources by Education Level, January - July 2022

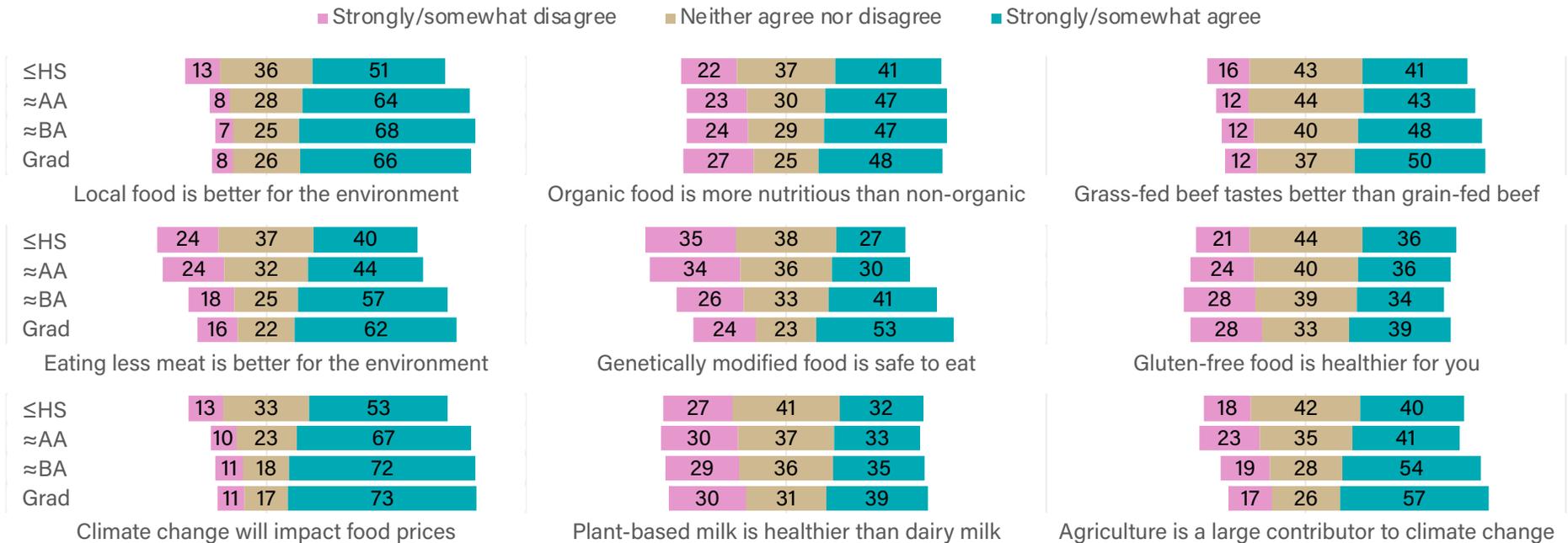


CONSUMER BELIEFS

What do Americans believe about their food and food system?

We observe differences in the beliefs that consumers with differing education levels have about their food (**Figure 18**). Notably, people without any college education are most likely to neither agree nor disagree with every surveyed statement compared to those with at least some college. With regards to climate change, a majority of all education levels agree that climate change will impact food prices. However, only those with at least a 4-year degree predominantly agree with critical concepts like agricultural is a large contributor to climate change, eating less meat is better for the environment, and genetically modified food is safe to eat. Responses are more uniform across education levels with regards to statements about health and nutrition.

Figure 18. Consumer Agreement with Claims about Food and Nutrition by Education Level, March - July 2022



FOOD POLICY

Where do Americans stand on food policy?

Most of the surveyed policies remain widely popular, and support for each policy is practically unchanged since this January. However, some policy preferences are associated with one's education level, as we observe more liberal political views are positively correlated with higher education. For example, adults with graduate degrees are the only consumers who support a sugar-sweetened beverage tax (**Figure 20**). More educated groups are also more likely to support more agricultural research funding, banning child advertising for junk foods, and carbon emissions taxation. Those with little or no college education most support expanding SNAP benefits. Support for citizenship for undocumented farmworkers, which nearly 2 in 3 people favor, is even across education levels and is particularly notable as the House-passed Farm Workforce Modernization Act is facing drawn out negotiations in the Senate that threaten its future.

Policy Questions:

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

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

Impose new regulations on the environmental claims food companies can make about their products, such as claims about water, soil, and air pollution.

Permanently extend and expand pandemic-related changes to SNAP that increase benefits and lower barriers to participation.

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

Place moratorium on new and expanding CAFOs, phase out the largest CAFOs, and pay farmers to transition out of operating CAFOs.

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

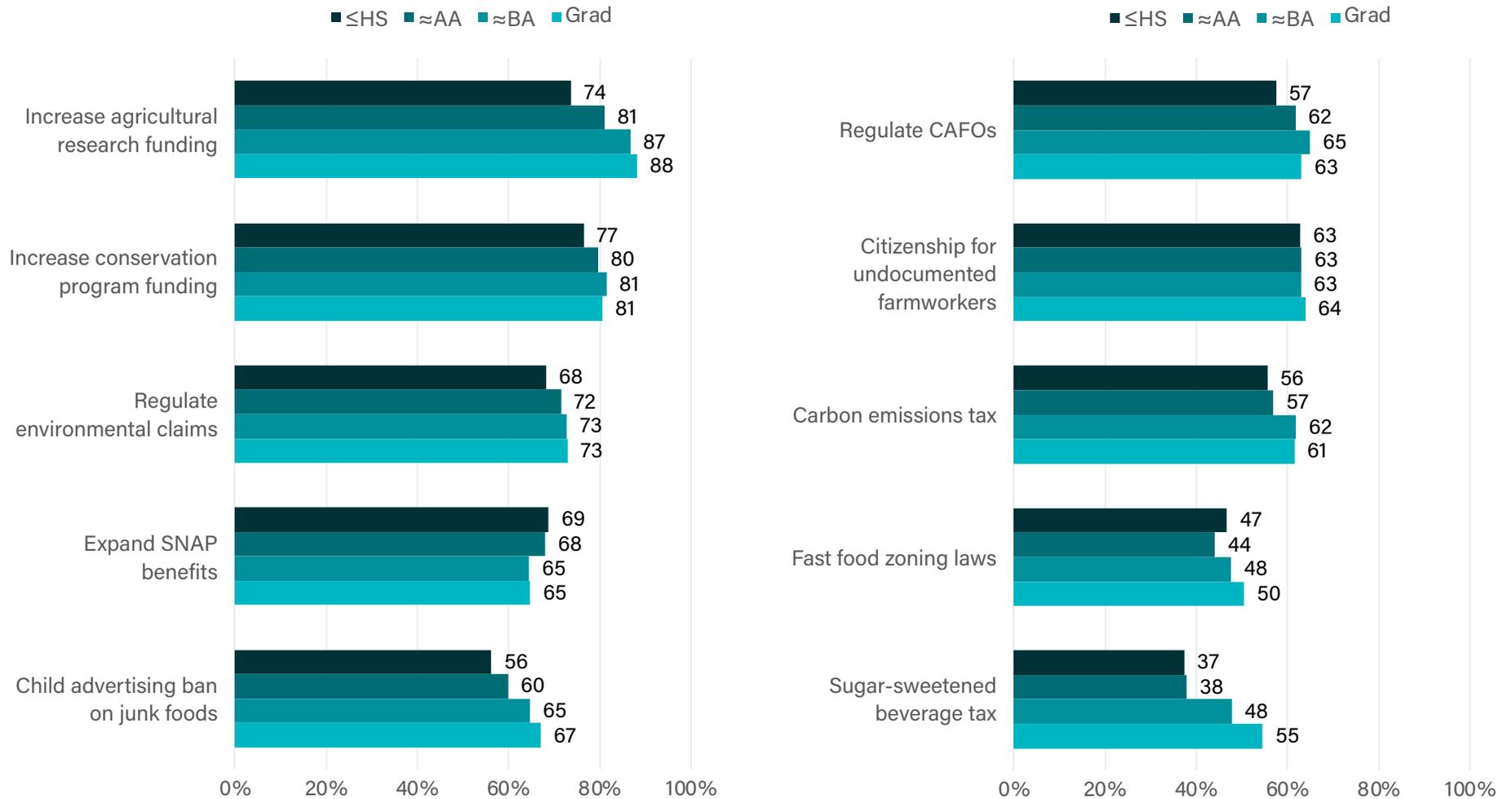
Impose a fee on all food producers according to the carbon footprint of their products unless they take clear action to reduce their greenhouse gas emissions.

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

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

FOOD POLICY

Figure 19. Favorable Support for Food and Agriculture Policies by Education Level, January - July 2022



ENDNOTES

1 Data were collected from an online panel maintained by the firm Dynata over a two-day period from July 18-19, 2022. 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 24% of June’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.

2 Sample sizes: ≤HS (n=2,075), ≈AA (n=2,634), ≈BA (n=2,391), and Grad (n=1,649).

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 High or marginal food security (i.e., food secure): 0-1 reported indications of food-access problems; little or no indication of change in diet or food intake. Respondents who reported an annual household income above 185% of the Federal poverty line were also screened as having high food security. This determination was made according to research by [Ahn et al. \(2020\)](#), which demonstrates that using a modified income-based screening procedure for internet surveys better approximates the government estimates of food insecurity. Low food security (i.e., food insecure): 2-4 reported indications of reduced quality, variety, or desirability of diet; little or no indication of reduced food intake. Low food security (i.e., food insecure): 2-4 reported indications of reduced quality, variety, or desirability of diet; little or no indication of reduced food intake.

5 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.