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

In this issue, we break down the CFI results according to Body Mass Index (BMI) groups using the Centers for Disease Control and Prevention's (CDC) classification of overweight (BMI ≥ 25) and non-overweight (BMI < 25).[2] We explore the last 25 months of data (Jan. 2022 - Jan. 2024). Additional questions included in the report describe consumers' diet-related plans and changes in food consumption in the new year.

KEY INSIGHTS FROM JANUARY

- 25% of consumers have set a food or nutrition-related resolution going into 2024.
- Cravings (46%) and cost (57%) are the primary obstacles consumers anticipate facing when consuming less or more, respectively.
- Consumers who are aware of the Dietary Guidelines for Americans (DGA) are more likely to report that their diet is healthy.
- Consumers self-classified as overweight (BMI ≥ 25) tend to be less food secure and less satisfied with their diets.
- The government CPI measure of food inflation dropped to 2.7% and appears to be slowly approaching the Fed's 2% target inflation rate.
- The rate of households receiving free food declined from 15% in December to 12% this month.

FOOD HAPPINESS	FOOD INSECURITY	FOOD SPENDING	GROCERY STOCKOUTS
81%	13%	$183/WEEK	11%

2024 DIET & NUTRITION

What plans do people have for their diet in the new year?

This month, we asked respondents if they had any 2024 New Year's resolutions related to food or nutrition. Of the 1,239 respondents, 25% (n=307) responded 'yes'. Breaking the responses down, we see that 29% of consumers self-classified as 'overweight' have a food or nutrition related resolution compared to 20% who are self-classified as 'non-overweight' (**Figure 1**). Of the share of consumers with a New Year's resolution related to food or nutrition, the top resolutions provided in an open-ended response largely concerned eating healthier – e.g., reducing or increasing the consumption of certain foods like sugar or protein – and losing weight (**Figure 2**). Words like 'weight', 'calories', 'lose' and 'intake' occured more frequently in the resolutions of consumers self-classified as overweight.

Figure 1. Share of Consumers Who Have Food or Nutrition-related New Year's Resolutions: Aggregated and by BMI Group, Jan. 2024

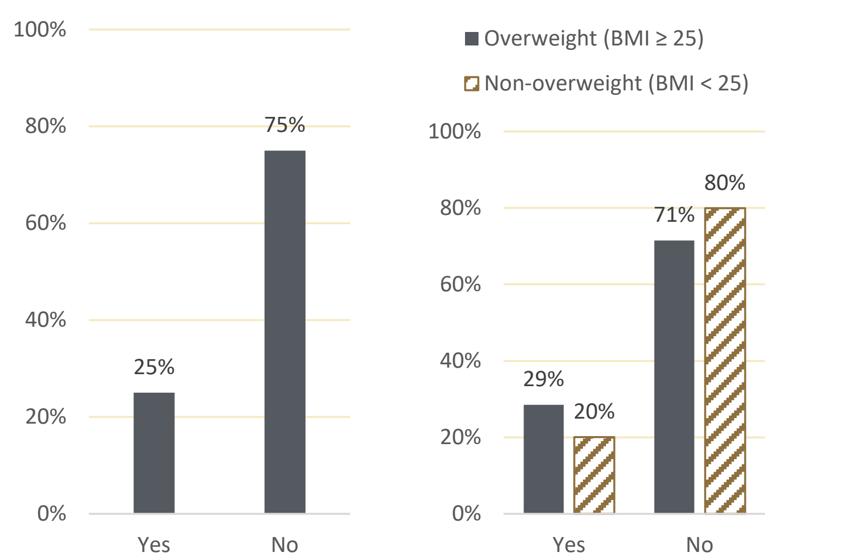
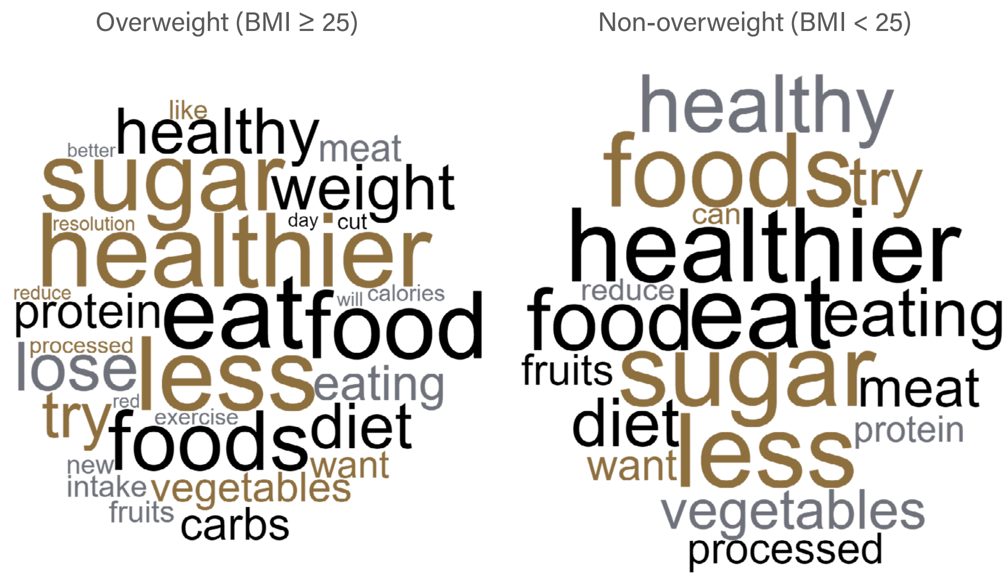


Figure 2. Top Words Included in Food-related New Year's Resolutions for 2024 by BMI Group (5+ occurances), Jan. 2024



2024 DIET & NUTRITION

What plans do people have for their diet in the new year?

Additionally, we asked respondents to indicate what the primary motivations behind their food or nutrition-related New Year's resolutions are, asking the respondent to select up to three. The top three motivations include improving current and long-term health and losing weight (**Figure 3**). We further break down the response distribution by BMI group (**Figure 4**). Looking at the biggest differences betwee the groups, we see that the majority of overweight consumers are motivated to lose weight or change their appearance (60%) while more non-overweight consumers will use muscle building as a primary motivator (36%).

Figure 3. Share of Consumers with Resolutions who Selected the Following Motivations, Jan. 2024

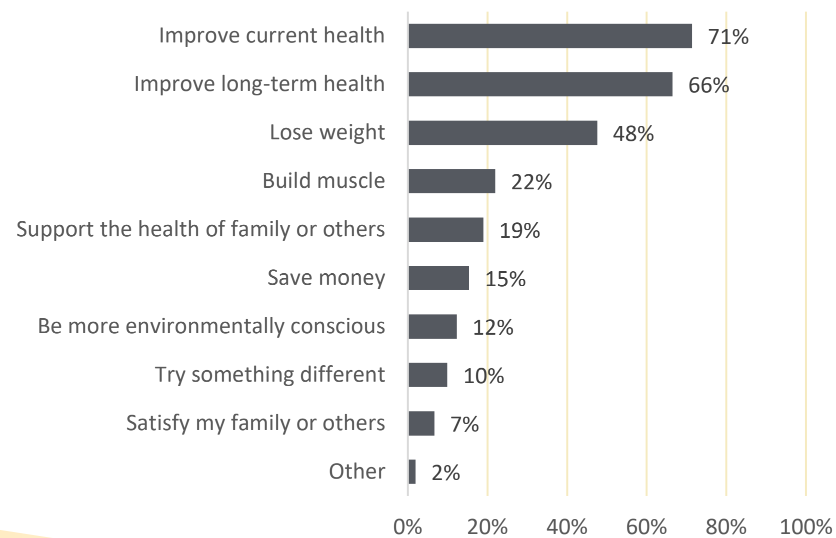
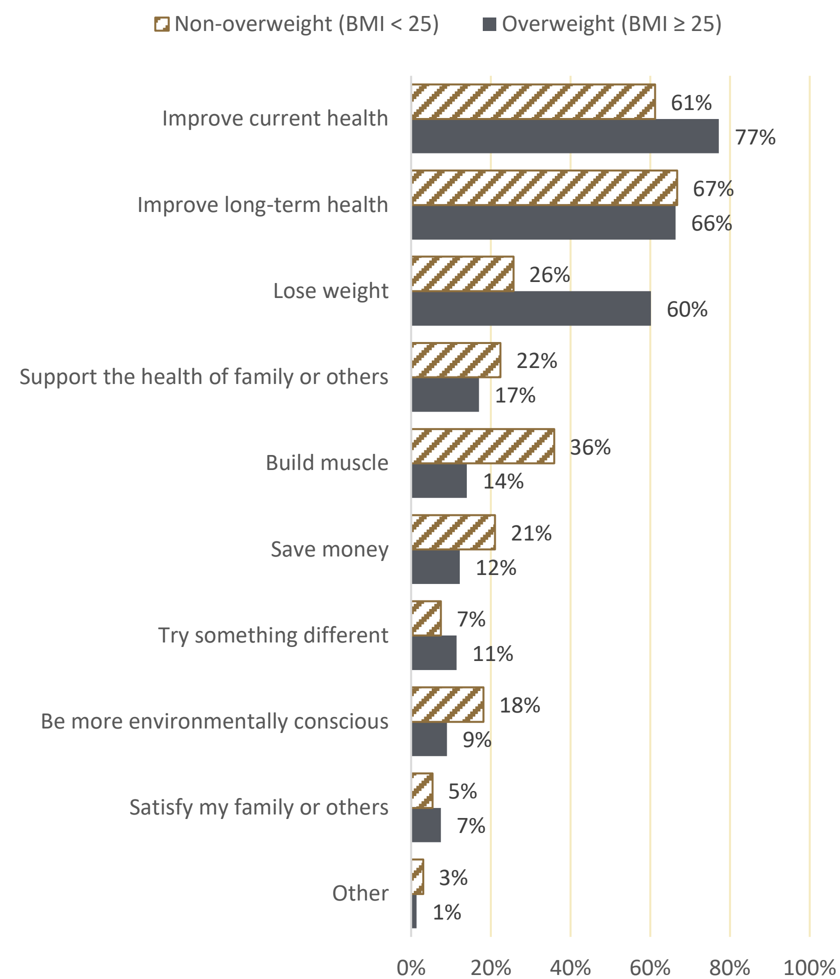


Figure 4. Share of Consumers with Resolutions who Selected the Following Motivations by BMI Group, Jan. 2024

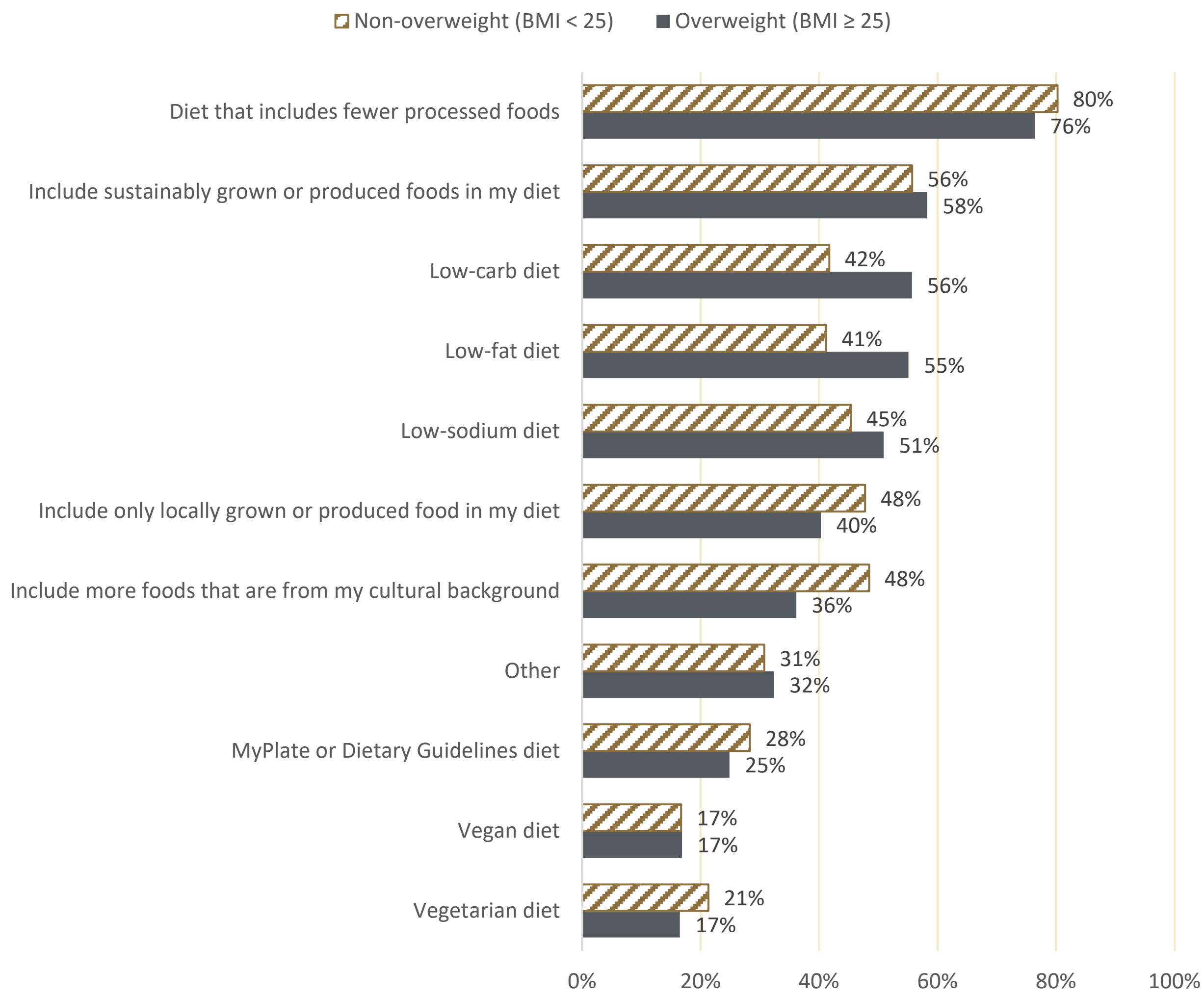


What specific diets do people plan to follow in the new year?

Figure 5 summarizes the proportion of consumers who plan to follow a specific diet in the new year by BMI group (**Figure 5**). The response summary focuses on those who had indicated they plan to make changes to their diet and health in the new year. We see that the majority of consumers plan to limit processed foods in their diets while fewer plan to follow more alternative diets, such as vegetarian and vegan.

A larger share of overweight consumers plan on following a low-carb or low-fat diet compared to non-overweight consumers. Given that weight loss is a motivator for many consumers that fall into the 'overweight' category compared to those in the 'non-overweight' category, the difference in the share of consumers planning to adhere to diets that limit the intake of nutrients commonly perceived to be associated with weight gain is unsurprising.

Figure 5. Share of Consumers who Plan to Follow a Specific Diet in 2024 by BMI Group, Jan. 2024

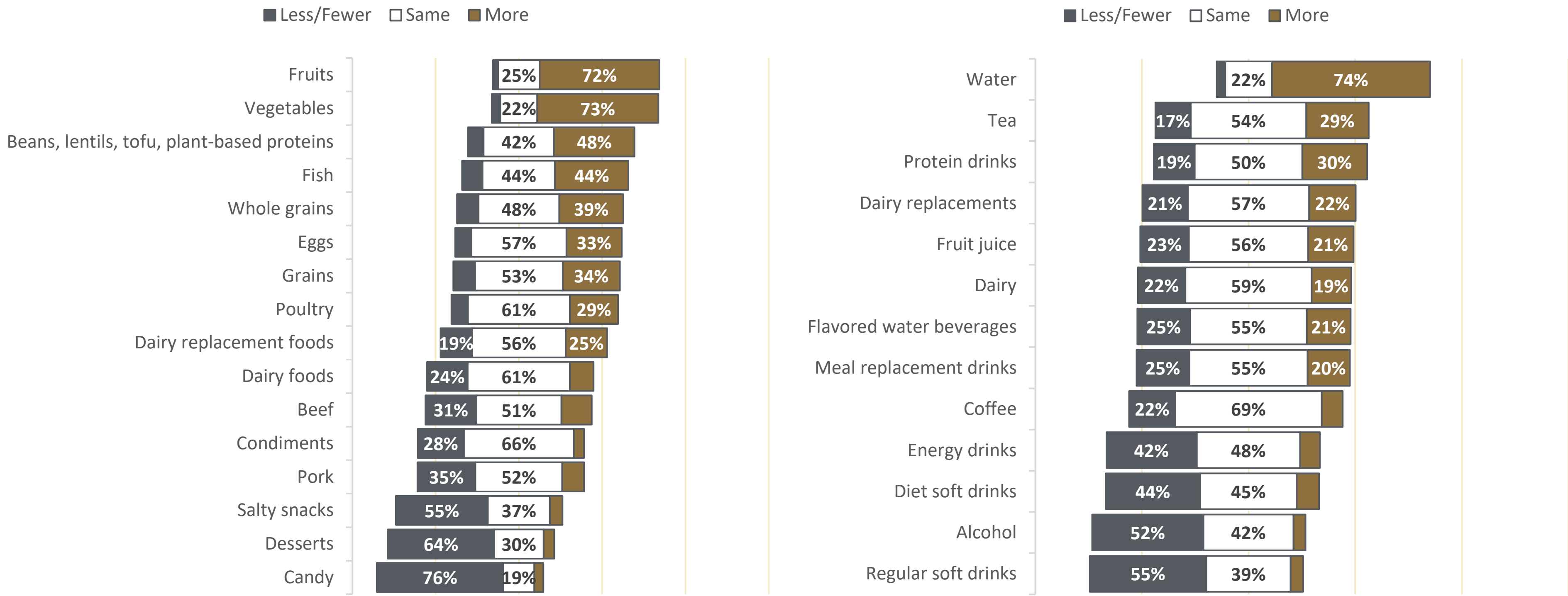


2024 DIET & NUTRITION

What specific diets do people plan to follow in the new year?

Additionally, we asked consumers if they planned to make and consumption changes for specific food items in the new year (more, less or the same). The response summary focuses on those who had indicated they plan to make changes to their diet and health in the new year. Consumers plan on eating more fruits and vegetables while limiting sugary foods and snacks. A significant proportion of consumers plan on drinking more water while limiting soft drink, energy drink and alcohol intake (**Figure 6**).

Figure 6. Share of Consumers who Plan to Change their Consumption of Specific Food/Beverage Items in 2024, Jan. 2024

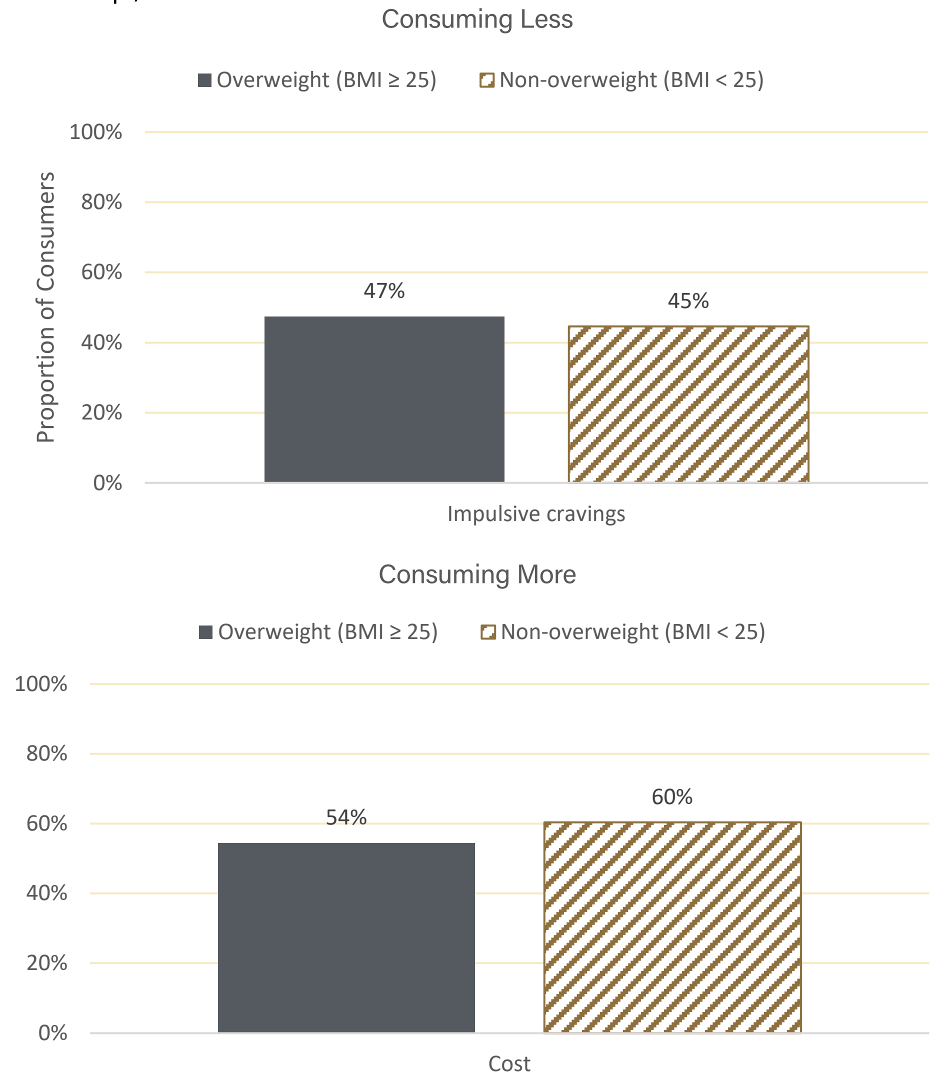


What obstacles do consumers anticipate facing when changing consumption?

As a follow-up to the previous questions, we asked respondents to indicate which obstacles they anticipate facing when attempting to make changes to their consumption of certain foods and beverages. **Figure 7** aggregates the results to summarize the obstacles most frequently anticipated by consumers for each type of consumption change and separates the response distribution by BMI group. Many consumers anticipate cravings as an obstacle when trying to consume less of a certain food or beverage, while cost is the most anticipated obstacle to consuming more.

This holds true for both BMI groups, though the cost of consuming more is slightly more of a concern among non-overweight consumers. These concerns are not unfounded, as some prior studies have shown the cost of eating healthier tends to be higher on average than the cost of eating unhealthier.[3] However, other studies suggest the cost of healthy vs. unhealthy eating is dependent on the price measurement, making the explanation behind this disparity between groups less clear.[4]

Figure 7. Share of Consumers who Anticipate Each Obstacle by Consumption Change and BMI Group , Jan. 2024



2024 DIET & NUTRITION

What do Americans think of the health of their diets?

Finally, we ask consumers to assess how healthy their overall diet is on a simple 5-point Likert scale from 'poor' to 'excellent'. This response summary reflects the entire January sample. Overall, we see that most consumers believe their diet is 'good' or better (**Figure 8**). We see an interesting correlation when separating consumers based on whether or not they have a 2024 food-related resolution (**Figure 9**). The worse a consumer perceives the health of their diet, the more likely they are to have set a resolution for 2024. However, a sizeable portion of those who already believe their diet is 'excellent' have also set a resolution for the new year. Notably, we see a positive correlation between awareness of the Dietary Guidelines for Americans (DGA) and diet perception, potentially showing the importance of the public promotion of this guidance to the health of American consumers (**Figure 10**).

Figure 9. New Year Dietary Resolution by Self-assessed Diet Health, Jan. 2024

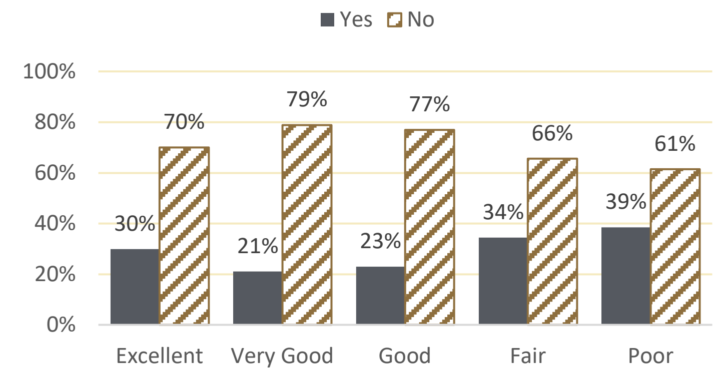


Figure 10. DGA Awareness by Self-assessed Diet Health, Jan. 2024

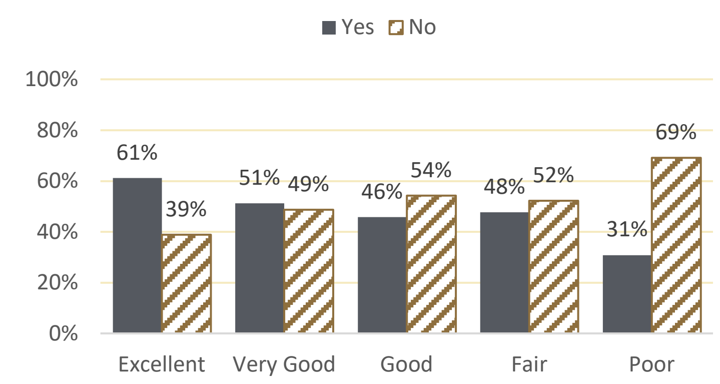
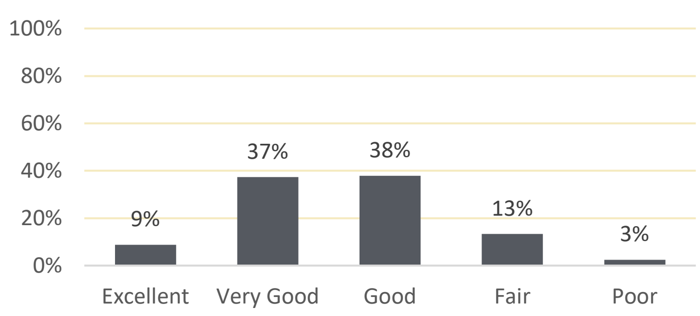


Figure 8. 'In general, how healthy is your overall diet? Would you say it is...' , Jan. 2024



FOOD EXPENDITURES

How much are American households spending on their food?

Each month, consumers report their household's weekly spending on food from the last 30 days (**Figure 11**). On average, consumers are spending about $124/week on groceries (FAH) and $67/week on restaurants and other carryout (FAFH)[5]. Total food spending is up 20% from January 2022, which is no surprise given the rise in food prices over the same period.

The consumer estimate of annual food inflation remained unchanged from December at 5.9% (**Figure 12**). The government CPI measure of food inflation dropped to 2.7% from 2.9% in December. Consumers' inflation expectation for the next 12 months also remained unchanged from last month (3.5%). The government CPI measure of food inflation appears to be leveling out as it approaches the Fed's 2% inflation target.

Figure 11. Weekly Household Food Expenditures, Jan. 2022 - Jan. 2024

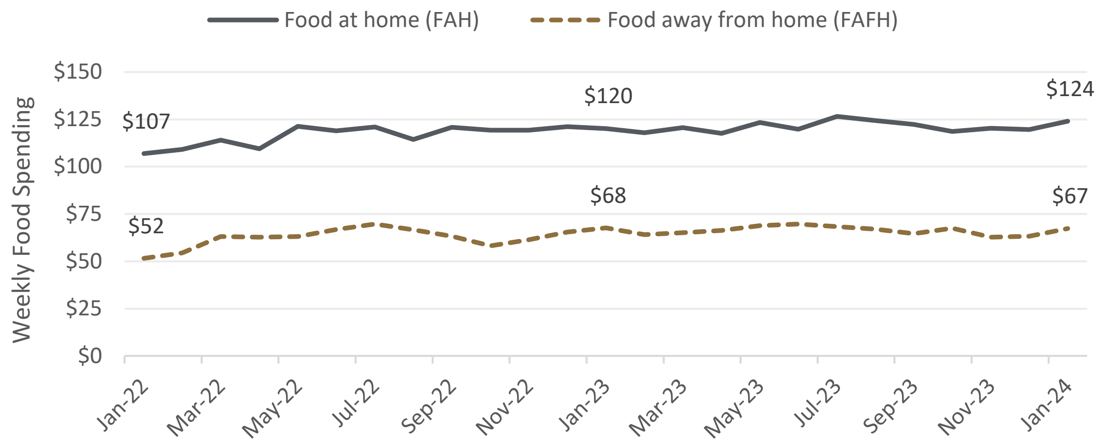
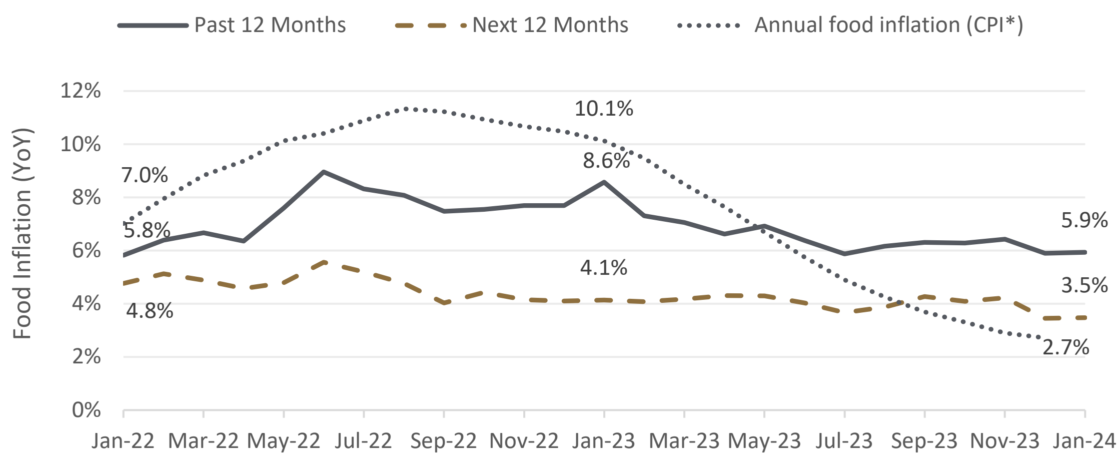


Figure 12. Consumer Estimates of Food Inflation Compared to Gov. Estimate, Jan. 2022 - Jan. 2024



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

FOOD SECURITY

Which Americans are having trouble buying food for their families?

Based on a set of six standard questions about food purchased and eaten in the past 30 days, we estimate national food insecurity to be about 13.2%.[6] This rate is below the 2023 average (14%) (**Figure 13**). The average food insecurity rate in 2023 was 14%, down from the 15% average in 2022. Food insecurity has consistently hovered around 13% since September 2023.

However, we have seen a small decline in the rate of households receiving free food from 15% in December to 12% in January (**Figure 14**). The average annual rate of households receiving free food also declined from 19% in 2022 to 16% in 2023. We will watch to see if the current rate reverts closer to the 2023 average or continues to decline. With food inflation slowing, consumers may be seeing some relief on their wallets, leading to less reliance on free food to supplement their food purchases.

Figure 13. Rate of Household Food Insecurity in the Last 30 Days, Jan. 2022 - Jan. 2024

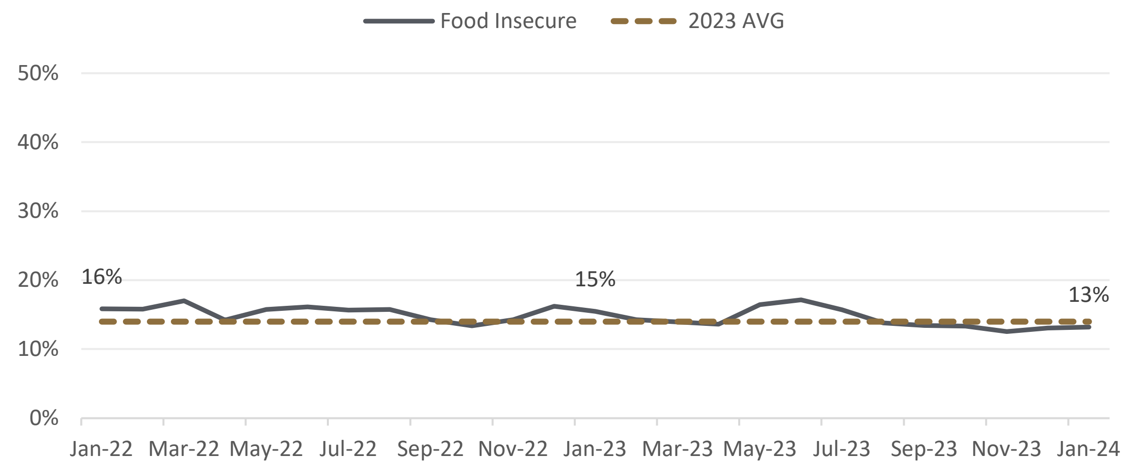
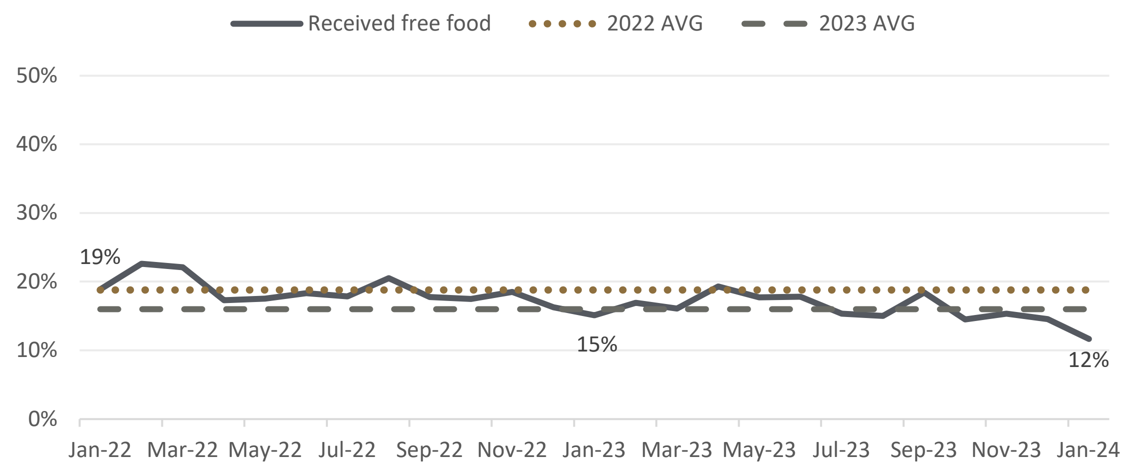


Figure 14. Rate of Households Receiving Free Food in Last 30 Days, Jan. 2022 - Jan. 2024



FOOD SECURITY

Which Americans are having trouble buying food for their families?

Figure 15 reveals a difference in the rate of food insecurity based on BMI group. Those who self-classified under the CDC's definition of 'overweight' tend to be more food insecure than those who are not. This relationship between food insecurity and obesity has been previously shown and represents a complex situation that is not fully understood.[7] SNAP participation also tends to be higher among overweight consumers (**Figure 16**), which is likely a result of more consumers within this group falling in lower-income categories (**Figure 17**). At lower-income levels, consumers may need to rely on SNAP benefits to supplement their diets.

Figure 15. Rate of Household Food Insecurity in the Last 30 Days by BMI Group, Jan. 2022 - Jan. 2024

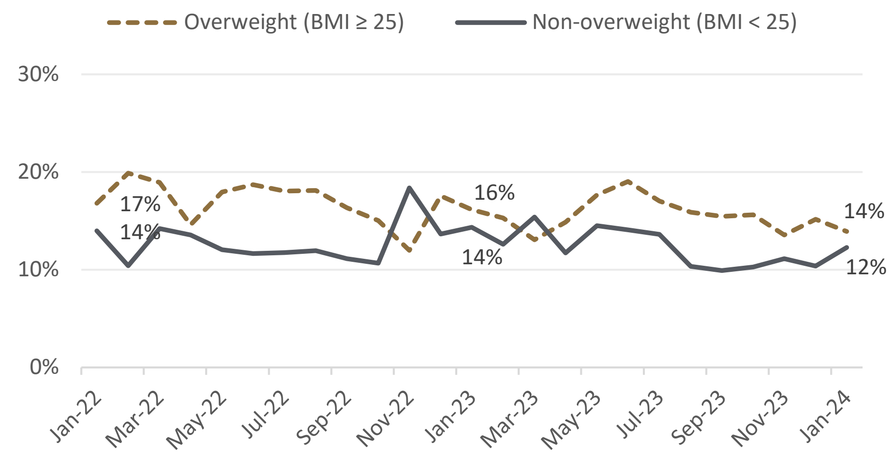


Figure 16. Household SNAP Participation Rate in the Last 30 Days by BMI Group, Jan. 2022 - Jan. 2024

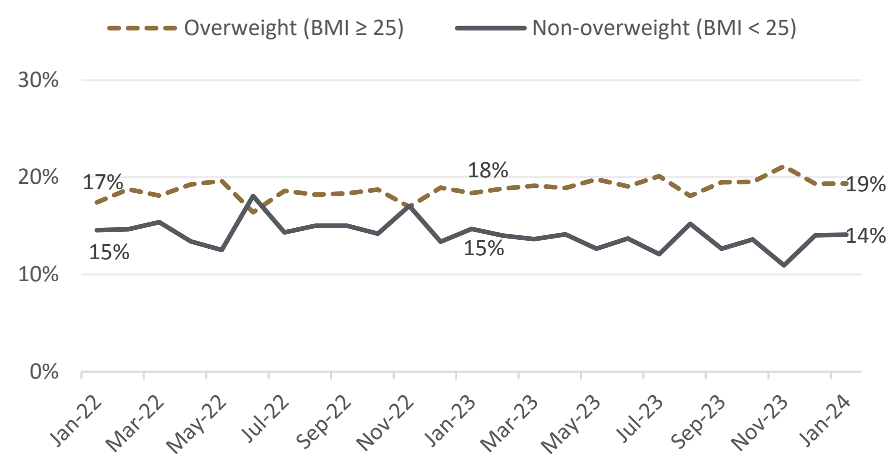
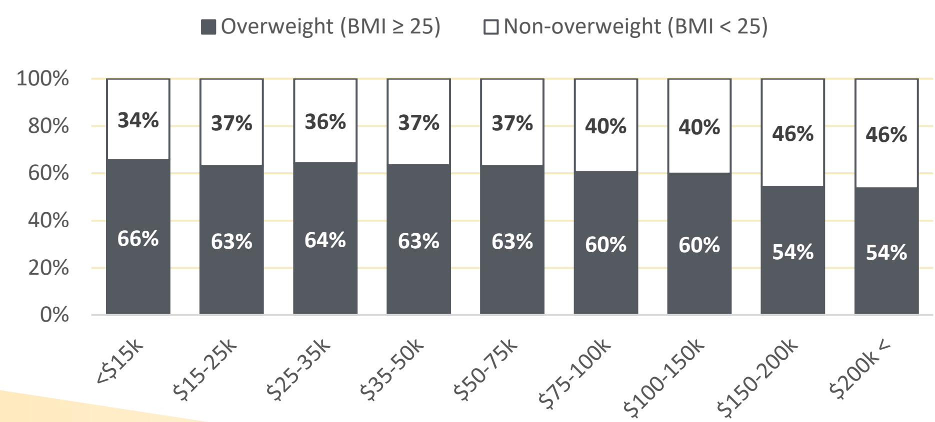


Figure 17. BMI Classification by Annual Household Income, Jan. 2022 - Jan. 2024



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FOOD SATISFACTION

Are Americans satisfied with their diets?

Respondents score their own diet on a 0-10 scale, with the top of that scale (10) representing their ideal diet.[8] Scores are categorized as thriving (7-10), struggling (5-6) or suffering (0-4). A majority of Americans (63%) continue to report thriving on this Diet Well-Being Index, though this proportion is lower than the 2022 (70%) and 2023 (69%) averages (**Figure 18**). Similarly, we see slightly fewer consumers report being 'Very happy' with their current diet this month relative to the averages over the last two years (**Figure 19**), and a slightly smaller proportion report being happy with their lives (**Figure 20**).

Figure 19. Rate of Consumer Diet Happiness, Jan. 2024

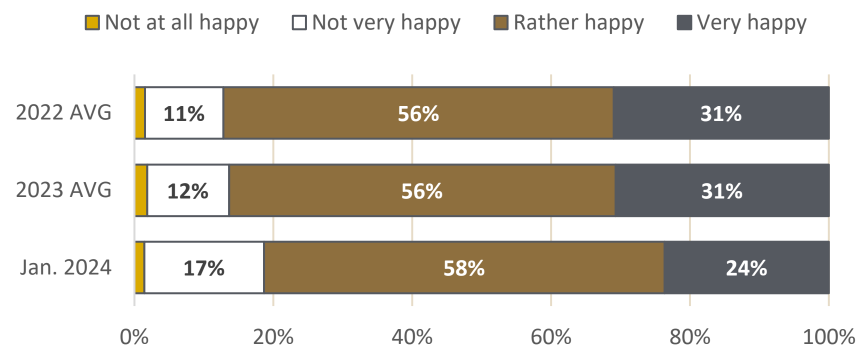


Figure 18. Diet Well-Being Index (0-10 Scale), Jan 2022 - Jan. 2024

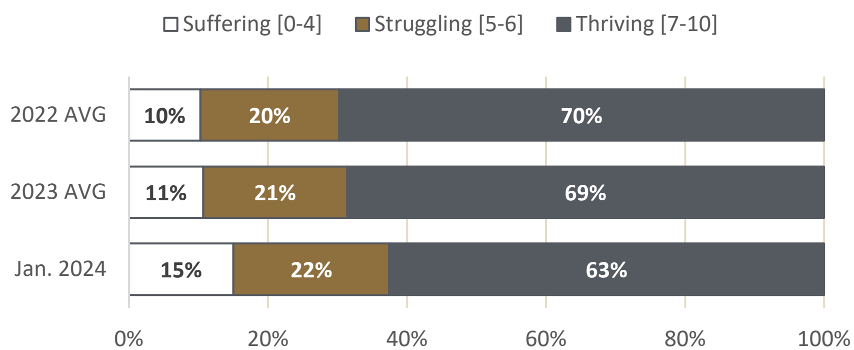
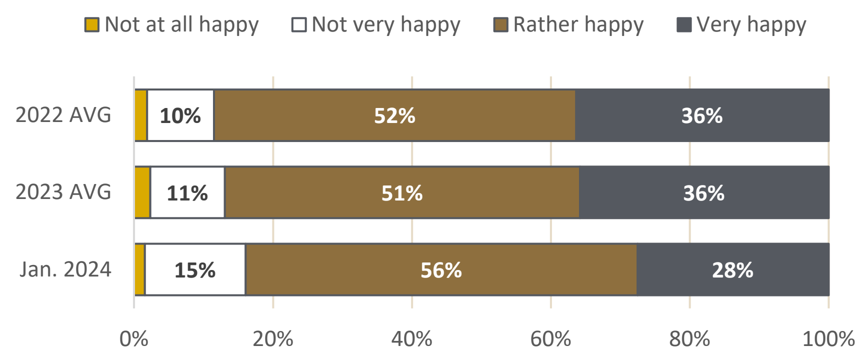


Figure 20. Rate of Life Happiness, Jan. 2024



FOOD SATISFACTION

Are Americans satisfied with their diets?

Figure 21 shows a smaller share of overweight consumers classified as 'thriving' on the diet well-being index. The disparity in food insecurity between the BMI groups may be contributing to this difference, if overweight consumers are unable to achieve their ideal diet due to limited accessibility to quality foods. We see a similar difference in diet happiness (**Figure 22**), though it should be noted that the majority of consumers in both groups remain happy with their diets.

Life happiness is consistent across both groups, showing that a majority of consumers are able to find enjoyment and happiness in their lives overall, regardless of weight (**Figure 23**).

Figure 21. Diet Well-Being Index (0-10 Scale) by BMI Group, Jan 2022 - Jan. 2024

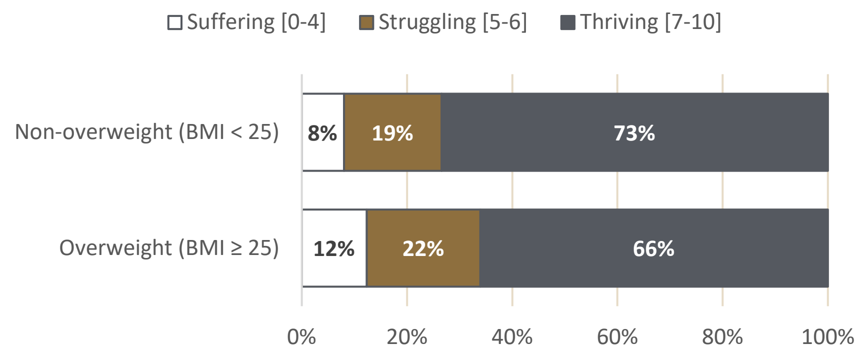


Figure 22. Rate of Consumer Diet Happiness by BMI Group, Jan. 2024

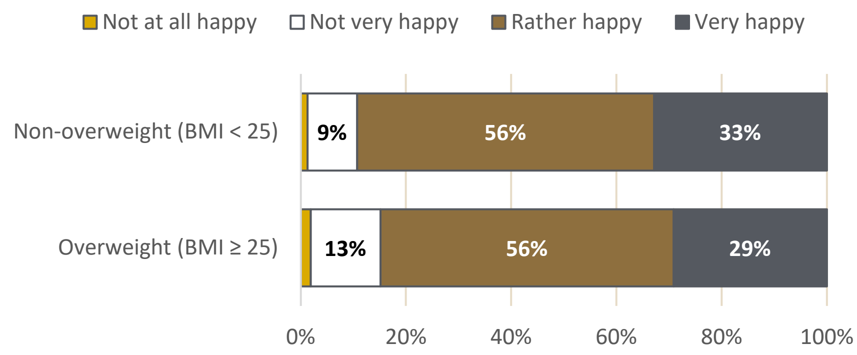
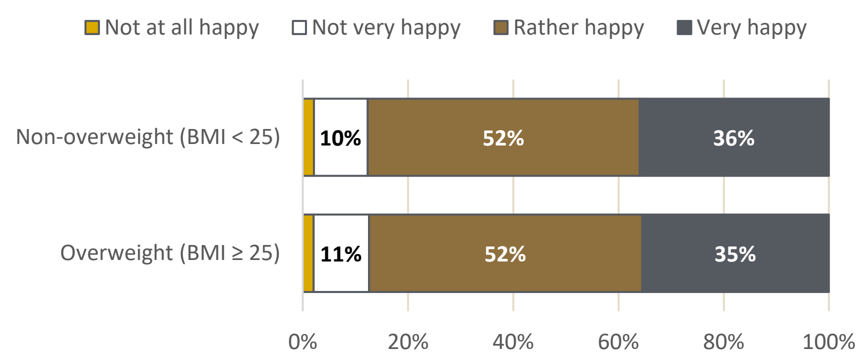


Figure 23. Rate of Consumer Diet Happiness by BMI Group, Jan. 2024



CONSUMER BEHAVIORS

How are Americans navigating their food environment?

We present consumers with common shopping and eating habits to see how frequently the statement applied to them in the last 30 days (**Figure 24** and **25**). We see a slight decrease in the average frequency consumers chose generic foods, local foods, wild-caught fish, grass-fed beef, cage-free eggs, organic foods and plant-based proteins between 2022 and 2023. Similarly, consumers reported checking food labels for things like food recalls, GMO ingedients and how their food was produced less frequently this month compared to the 2022 and 2023 averages. Consumers also appear less willing to eat "risky" foods, such as rare meat, unwashed vegetables and raw dough relative to previous years.

We see subtle differences in food behaviors between overweight and non-overweight consumers when aggregating the last 25 months of data. Non-overweight consumers report checking food labels more often than overwight consumers for things like nutrition, natural or clean labels and the origin of their food. They also are more likely to choose plant-based proteins over animal proteins.

Figure 24. Frequency of Consumer Shopping and Eating Habits: Aggregate and by BMI Group, Jan. 2022 - Jan. 2024

	2022 AVG	2023 AVG	Jan. 2024	Overweight (BMI ≥ 25)	Non-overweight (BMI < 25)
Chose generic foods over brand-name foods	3.3	3.2	3.2	3.3	3.3
Chose local foods over non-local foods	3.1	3.0	2.9	3.1	3.1
Chose wild-caught fish over farm-raised fish	2.9	2.9	2.7	2.9	3.0
Chose grass-fed beef over conventional beef	2.9	2.8	2.6	2.8	2.9
Chose cage-free eggs over conventional eggs	2.8	2.8	2.6	2.8	2.8
Chose organic foods over non-organic foods	2.7	2.7	2.5	2.7	2.7
Chose plant-based proteins over animal proteins	2.5	2.3	2.0	2.3	2.5
	Aggregate			BMI Group, Jan. 2022 - Jan. 2024	

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

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CONSUMER BEHAVIORS

Figure 25. Frequency of Consumer Shopping and Eating Habits: Aggregate and by BMI Group (continued), Jan. 2022 - Jan. 2024

	2022 AVG	2023 AVG	Jan. 2024	Overweight (BMI ≥ 25)	Non-overweight (BMI < 25)
Checked the Use-By/sell-by date at the store	4.0	4.0	4.0	4.0	4.1
Checked the nutrition label before buying new foods	3.4	3.4	3.3	3.3	3.5
Checked for natural or clean labels	3.0	2.9	2.8	2.9	3.1
Checked where my food originated	2.9	2.8	2.7	2.8	3.0
Checked for food recalls	2.9	2.8	2.5	2.8	2.8
Checked for GMO ingredients	2.8	2.7	2.5	2.7	2.9
Checked how my food was produced	2.8	2.8	2.5	2.7	2.8
Took steps to reduce food waste at home	3.7	3.8	3.7	3.7	3.8
Recycled food packaging	3.5	3.5	3.4	3.4	3.6
Threw away food past the Use-By date	3.2	3.2	3.2	3.2	3.2
Composted food scraps	2.4	2.3	2.2	2.3	2.5
Ate fruits and vegetables without washing them	2.3	2.2	2.1	2.3	2.2
Ate rare or undercooked meat	2.0	1.9	1.8	2.0	1.9
Ate raw dough or batter	2.0	1.9	1.8	2.0	1.9

Aggregate

BMI Group, Jan. 2022 - Jan. 2024

Mean Score

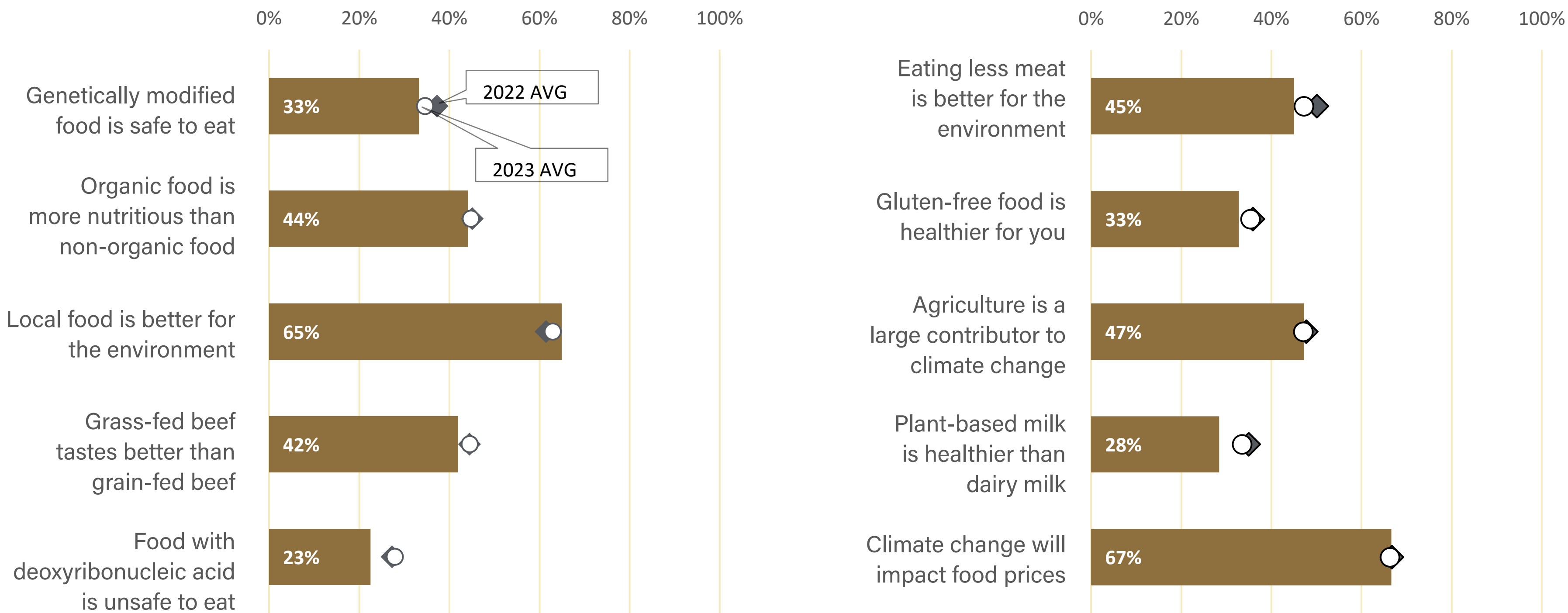
Score	
5	Always
4	Often
3	Sometimes
2	Rarely
1	Never

CONSUMER BELIEFS

What do Americans believe about their food and food system?

In **Figure 26**, we compare agreement with statements about food and nutrition. Agreement about the health benefits of plant-based milk and gluten-free food is lower this month compared to the averages from the last two years of data. Similarly, agreement with the claims about the safety of GMO foods and the environmental impact of meat consumption have declined slightly since 2022. Yet, the majority of consumers continue to agree that 'climate change will impact food prices' and that 'local food is better for the environment.'

Figure 26. Share of Consumers who *'Somewhat Agree'* or *'Strongly Agree'* with Claims about Food and Nutrition, Jan. 2024



CONSUMER TRUST

Who do Americans trust on topics of food?

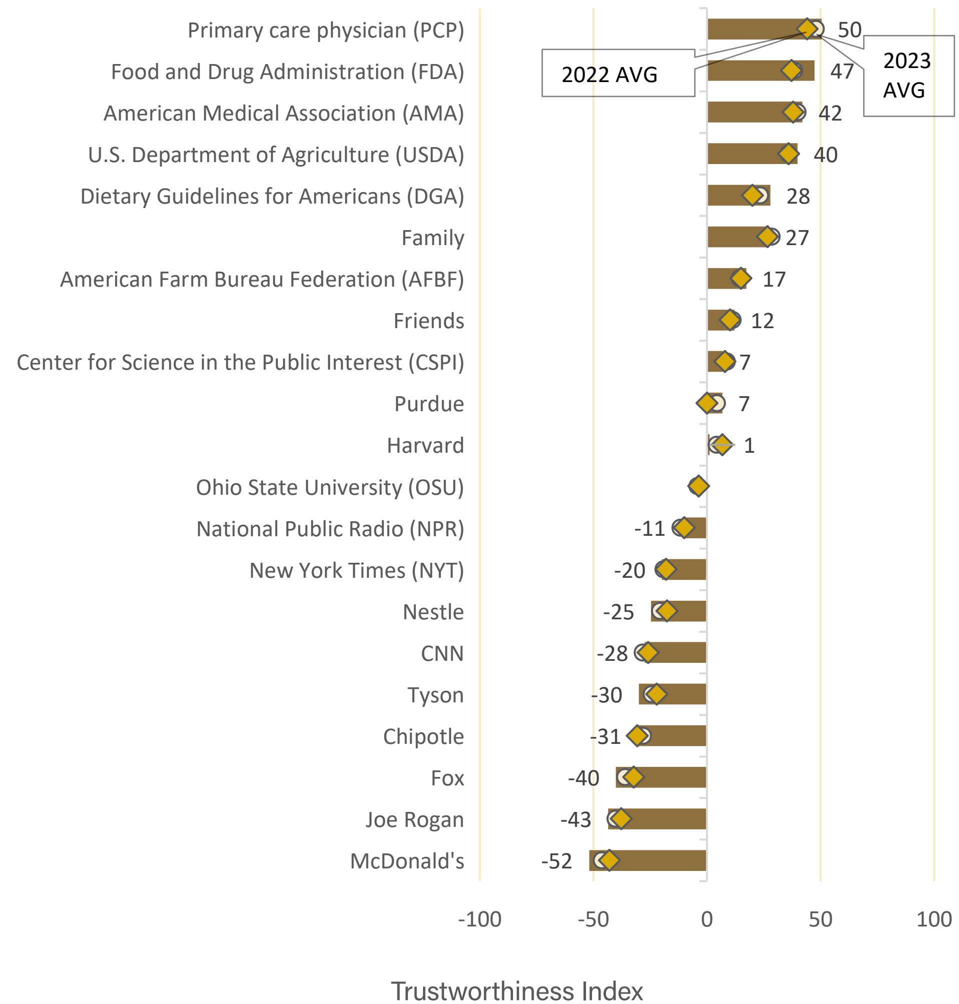
Respondents select their most trusted and least trusted sources of information about healthy and sustainable food, which are scored on a Trust Index from -100 (least trusted) to 100 (most trusted) (**Figure 27**).[9]

Compared to the 2022 average, consumer trust in professionals and federal organizations tasked with protecting public health and our food system, such as primary care providers, the Food and Drug Administration (FDA), U.S. Department of Agriculture (USDA) and Dietary Guidelines for Americans (DGA), has increased.

Conversely, large food corporations, entertainers and news companies have been consistently selected as many consumers' least trusted sources of healthy and sustainable food-related information the past two years.

It will be interesting to see how/if trust in the DGA changes as the DGA Advisory Committee develops the new 2025-2030 guidelines.

Figure 27. Trust Index of Food-Related Information Sources, Jan. 2024



ENDNOTES

1 Data were collected from an online panel maintained by the company Dynata over a six-day period from December 18-23, 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. Population proportions have been updated to reflect the most recent complete year of ACS Census data (2022). Every respondent from the previous month was re-contacted and asked to take the survey again. About 63% of December'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 Centers for Disease Control and Prevention. (2022). *Defining Adult Overweight & Obesity*. U.S. Department of Health and Human Services. https://www.cdc.gov/obesity/basics/adult-defining.html

Consumers self-report their height (in.) and weight (lbs.) which is used to calculate BMI: [weight / (height^2)] * 703

Sample size Jan. 2022 - Dec. 2022:	Overweight (BMI ≥ 25) (n=9,560); Non-overweight (BMI < 25) (n=5,417)
Sample size Jan. 2023 - Dec. 2023:	Overweight (BMI ≥ 25) (n=9,591); Non-overweight (BMI < 25) (n=5,630)
Sample size Jan. 2024:	Overweight (BMI ≥ 25) (n=705); Non-overweight (BMI < 25) (n=534)

3 Rao M, Afshin A, Singh G, Mozaffarian D. *Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis*. BMJ Open. 2013 Dec 5;3(12):e004277. doi: 10.1136/bmjopen-2013-004277. PMID: 24309174; PMCID: PMC3855594

4 Carlson, Andrea, and Elizabeth Frazão. *Are Healthy Foods Really More Expensive? It depends on How You Measure the Price*, EIB-96, U.S. Department of Agriculture, Economic Research Service, May 2012. https://www.ers.usda.gov/publications/pub-details/?pubid=44679

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.

ENDNOTES

6 High or marginal food security (i.e., food secure): 0-1 reported indications of food-access problems; little indication of change in diet or food intake. Respondents who reported an U.S. Census Region above 185% of the Federal poverty line were also screened as having high food security. This determination was made according to research by Ahn et al. (2020), which shows that using a modified income-based screening procedure for internet surveys better approximates government estimates of food insecurity. Low food security (i.e., food insecure): 2-4 reported indications of reduced quality, variety, or desirability of diet; little indication of reduced food intake. Very low food security (i.e., food insecure): 5-6 reported indications of disrupted eating patterns, changes in diet, and reduced food intake.

7 Franklin B, Jones A, Love D, Puckett S, Macklin J, White-Means S. Exploring mediators of food insecurity and obesity: a review of recent literature. J Community Health. 2012 Feb;37(1):253-64. doi: 10.1007/s10900-011-9420-4. PMID: 21644024; PMCID: PMC3334290.

8 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.

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