CALCULATIONS

Sustainable Food Purchasing Index

The Sustainable Food Purchasing (SFP) Index is derived from questions SUS1_1 - SUS1_18 (18 total questions) subdivided into six components. The five-point scale on which these questions are answered was developed based on the Transtheoretical Model (TTM) of behavior change (see Tobler et al. 2011; Weller et al. 2014). The scale is coded 0 - 4 to indicate that the lowest score represents shopping habits that are not consistent with sustainability. A sub-score is generated for each sub-component for each respondent, and the overall score is an average of these six sub-scores. The mean scores rounded to the nearest whole number are reported.

To calculate an SFP Index sub-score, first determine the relative sub-score (X) by summing the responses to the respective three questions that comprise the sub-component (see below).
A perfect sub-score equals 12, thus divide the relative sub-score by 12 then multiply by 100 (a constant).

$$X_{NUTRITION} = SUS1\_1 + SUS1\_2 + SUS1\_3$$
$$X_{ENVIRONMENT} = SUS1\_4 + SUS1\_5 + SUS1\_6$$
$$X_{SOCIAL} = SUS1\_7 + SUS1\_8 + SUS1\_9$$
$$X_{ECONOMIC} = SUS1\_10 + SUS1\_11 + SUS1\_12$$
$$X_{SECURITY} = SUS1\_13 + SUS1\_14 + SUS1\_15$$
$$X_{TASTE} = SUS1\_16 + SUS1\_17 + SUS1\_18$$

$$SFP_{EXAMPLE} = \frac{X_{EXAMPLE}}{12} \times 100$$

$$SFP_{OVERALL} = \frac{SFP_{NUTRITION} + SFP_{ENVIRONEMNT} + SFP_{SOCIAL} + SFP_{ECONOMIC} + SFP_{SECURITY} + SFP_{TASTE}}{6}$$

Food Security: Six-item Module

This procedure replicates the "U.S. Household Food Security Survey Module: Six-Item Short Form" developed by the USDA Economic Research Service.

Responses of "often" or "sometimes" on questions SEC1 and SEC2 and "yes" on SEC3, SEC5, and SEC6 are coded as affirmative. Responses of three days or more on SEC4 are coded as affirmative. The sum of affirmative responses to these six questions is the household's raw score on the scale.

Food security status is assigned as follows:

- Raw score 0-1 — High or marginal food security
- Raw score 2-4 — Low food security
- Raw score 5-6 — Very low food security

The food security status of households with raw score 0-1 is described as food secure and the two categories "low food security" and "very low food security" in combination (raw score 2-6) are referred to as food insecure.

Screening: Respondents who reported an annual household income above 185% of the Federal poverty line were assigned a raw score of zero. 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.

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page 2 of 3

Other Indices and Scales

- Trustworthiness Index [January - September 2022, January 2023 - Present]

Question TRU1 is used to generate the Trustworthiness Index of Food-Related Information Sources. A list of 20 items—government agencies, news organizations, businesses, universities, people, etc.—was provided to respondents (the order randomly varied), and a score from -1 to 1 was created by calculating the proportion of times an item was ranked most trustworthy minus the proportion of times it was ranked least trustworthy. This score was then multiplied by 100 (a constant).

- Satisfaction Index [June 2022]

Question SAT6 is used to generate the Satisfaction Index of American Life. A list of 16 items—institutions, topics, and factors that may all affect one's quality of life—was provided to respondents (the order randomly varied), and a score from -1 to 1 was created by calculating the proportion of times an item was ranked most satisfied minus the proportion of times it was ranked most dissatisfied. This score was then multiplied by 100 (a constant).

- Budget Stress Index [August 2022]

Question SPN16 is used to generate the Consumer Budget Stress Index. A list of 12 items—typical consumer budget categories similar to those used by the Bureau of Labor Statistics—was provided to respondents (the order randomly varied), and a score from -1 to 1 was created by calculating the proportion of times an item was ranked most concerned minus the proportion of times it was ranked least concerned. This score was then multiplied by 100 (a constant).

- Best-Worst Scale for "Regenerative" [September 2022]

Questions SUS4 - SUS16 are used to generate a scale comparing 13 food and agriculture terms associated with "regenerative." Using a balanced incomplete block design, these 13 questions, each with a different set of 4 terms, showed each term 4 times and in combination with each other term once. Both the order of the terms and the order of the questions was randomized. A score of -1 to 1 was created by calculating the proportion of times an item was ranked most associated minus the proportion of times it was ranked least associated.

- Priorities Index [January 2023 & January 2024]

Question TND5 (2023) and AH4 (2024) is used to generate the Priorities Index for Changes to Eating Habits and Wellbeing in 2023 and 2024. A list of 12 items (16 in 2024)—various food consumption behaviors—was provided to respondents (the order randomly varied in 2023), and a score from -1 to 1 was created by calculating the proportion of times an item was ranked most prioritized minus the proportion of times it was ranked least prioritized. This score was then multiplied by 100 (a constant).

- Food Label Importance Index [March 2023]

Question FLB7 is used to generate the Index of Food Label Importance. A list of 14 items—various labels commonly found on food products—was shown to respondents (the order randomly varied), and a score from -1 to 1 was created by calculating the proportion of times an item was ranked most important minus the proportion of times it was ranked least important. This score was then multiplied by 100 (a constant).

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page 3 of 3