FORMULAS & 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).

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

$$
\text{SFP}_{\text{EXAMPLE}} = \frac{X_{EXAMPLE}}{12} \times 100
$$

$$
\text{SFP}_{\text{OVERALL}} = \frac{\text{SFP}_{NUTRITION} + \text{SFP}_{ENVIRONEMNT} + \text{SFP}_{SOCIAL} + \text{SFP}_{ECONOMIC} + \text{SFP}_{SECURITY} + \text{SFP}_{TASTE}}{6}
$$

Trustworthiness Index

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

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.