

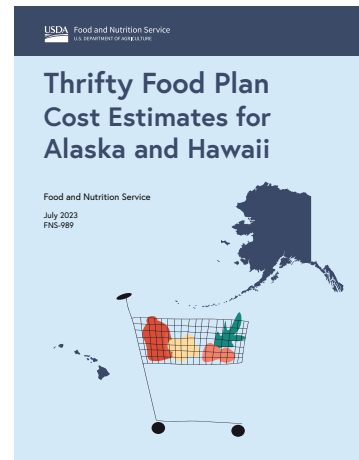
Thrifty Food Plan Cost Estimates for Alaska and Hawaii

Introduction

The U.S. Department of Agriculture (USDA), Food and Nutrition Service, Center for Nutrition Policy and Promotion conducted a formal, comprehensive, and independent peer review of the “Thrifty Food Plan Cost Estimates for Alaska and Hawaii” report. USDA identified eight experts with demonstrated knowledge and expertise in price indexes, scanner data, food prices in Alaska and Hawaii, and the Thrifty Food Plan (TFP) to review a draft of the report. Six of the eight experts agreed to participate in the review and returned signed nondisclosure agreements. One expert located in Hawaii declined to participate due to time constraints and provided a suggestion for an alternate reviewer who also declined due to time constraints. An expert located in Alaska did not respond to USDA’s requests. USDA sent the six experts who agreed to participate the draft report on December 1, 2022, and received all their feedback by the December 15, 2022 deadline.

This document summarizes the major feedback USDA received from the expert reviewers and discusses how USDA incorporated their feedback into the final report. This document is a summary and does not identify individual reviewers nor include an exhaustive compilation of all feedback provided by the reviewers. Namely, it does not include the reviewers’ editorial suggestions, which were nearly all incorporated into the final report.

USDA received feedback from the six peer reviewers in three forms: email correspondence, standalone documents, and margin comments within the draft report. Many of the peer reviewers’ suggestions were editorial or related to organization (e.g., moving a section to an appendix, adding a flowchart). There were also suggestions related to core components of the methodology, which are the primary focus of this document. The following sections break the reviewers’ comments down by theme and discuss how USDA incorporated the feedback into the final report.



General agreement with methodological decisions

Five of the reviewers provided an overarching statement in reaction to the report; one reviewer did not provide an overarching statement. All of these comments were positive and suggested that the methodology used to calculate TFP costs for Alaska and Hawaii did not require any major changes. These statements are included below:

- One reviewer found "[...] the methodology to be theoretically sound, the implementation to be practical, and the results reasonable."
- "Overall, this report provides clear guidance on how the TFP will be set differently in these states."
- "Overall, I found this report easy to follow and came away convinced that proposed data source and methodology were the best option from an analytic/empirical perspective and responsive to the statutory and regulatory requirements related to the TFP."
- "The overall approach [...] is basically sound. The report seems well-written, informative, and thoughtful."
- "The analysis is done thoroughly and study is designed very carefully."

Praise of sensitivity analyses

Four of the reviewers provided comments regarding the sensitivity analysis section; two of the reviewers did not provide comments on the sensitivity analysis section. These comments were all positive and indicated that the sensitivity analysis section was effective. These statements are included below:

- “Excellent.”
- “I particularly want to praise the authors for considering various alternative approaches to calculating the TFP in these states. By considering an array of alternatives, they provide a compelling case for the choices they did make. Similarly, their inclusion of sensitivity analyses provides policymakers and program administrators with even more confidence in the results of this report.”
- “I appreciated USDA’s extensive sensitivity analyses.”
- “The sensitivity analysis is comprehensive.”

Fixed versus variable Market Basket

USDA’s method for constructing the price-of-food adjustments for Anchorage and Honolulu used a fixed-basket approach weighted to reflect the TFP, 2021 Market Basket for the reference family of four. As discussed in detail in the final report, the rationale for using the fixed-basket approach was to align with regulations that stipulate the costs of the TFP in Alaska and Hawaii are to be based on cost of the TFP in the 48 States and the District of Columbia (hereafter referred to as the “mainland United States”) and adjusted for the price of food in Anchorage and Honolulu, respectively (7 CFR 273.10(e)(4)(i)). USDA’s interpretation of this regulation is that the TFP Market Baskets for Anchorage and Honolulu are intended to be identical to that of the mainland United States.

Four of the six reviewers commented on this topic. One reviewer agreed with USDA’s interpretation when this point was discussed in the draft report while three reviewers disagreed with USDA’s interpretation. The first of these three argued that “You can have the best possible price index while still deciding freely to keep just one national TFP food bundle,” and the second argued that holding the Market Basket constant at the Universal Product Code (UPC)-level could be problematic because it provides a degree of false precision and reduces the sample size of UPCs on which the index can be based. The third reviewer

was also skeptical that the implicit creation of Market Baskets for the purpose of calculating price indexes could conflict with regulations, but they did not elaborate further on how to address this or how they would interpret the regulations. USDA maintains that a price index that holds cost shares of individual UPCs constant across locations is the approach that best aligns with regulations. USDA bolstered this discussion in the final report to address the points raised by the three reviewers who disagreed. Specifically, the final report includes a section titled “Unit of Analysis” that provides a detailed discussion of the rationale for using UPCs as the unit of analysis.

An important point raised by two reviewers is that the fixed-basket approach based on nationwide purchasing patterns leads to higher estimates of the cost of the TFP in Alaska and Hawaii compared to other methods such as fixed-basket approaches based on purchasing patterns in Anchorage or Honolulu, as well as compared to variable-basket approaches. One of these reviewers elaborated, saying “Broadly, there is an issue of justice in not overstating price differentials in SNAP policy; if one did overstate price differentials, the upshot would be to shift resources from places with lower prices and higher poverty to places with higher prices and lower poverty. HI [Hawaii] and AK [Alaska] have low poverty rates.” This reviewer suggested that USDA bolster the discussion of the fixed-basket approach and its implications compared to alternatives, as well as include sensitivity analyses of alternative fixed-basket weighting schemes. USDA addressed these comments in the final report in three ways: (1) by clarifying that the sales shares used in the price index reflect the nationwide spending distribution, not the mainland United States spending distribution as was erroneously implied in the draft report; (2) by expanding the discussion of UPC sales shares in the final report; and (3) by including a sensitivity analysis that used location-specific (i.e., Anchorage, Honolulu, and mainland United States) sales shares of UPCs to calculate a price index instead of sales shares derived from the nationwide data as were used in the main analysis.

Another reviewer suggested that USDA consider other approaches that are fixed at a higher aggregate category of foods (than UPCs) while allowing substitution between UPCs within the aggregate category, as this is most similar to current practice at the Bureau of Labor Statistics (BLS) within the U.S. Department of Labor. USDA considered

this alternative approach but ultimately did not pursue it because using a higher aggregate unit of analysis (than UPC) would have implicitly created new TFP Market Baskets in Alaska and Hawaii, thereby conflicting with regulations. USDA did not address this suggestion via a sensitivity analysis because it would have reflected an entirely different approach to index construction compared to the main analysis, whereas the sensitivity analysis section of the report was intended to examine the effects of individual methodological decisions and assumptions on the results of the analysis.

Controlling for regional differences in store type

USDA's approach for estimating price-of-food adjustments controlled for differences in local food choices and local food retail environments, in part by incorporating store type weights into the calculation of average unit prices for each UPC. Several reviewers commented in detail on this topic. One reviewer elaborated that controlling for regional differences in the relative importance of store types is important when constructing a cost-of-living index, but it is not as important when constructing a cost-of-goods index, "which is only concerned with the cost of food, not whether the food is sold at a nice store vs. a run-down store." The distinctions between cost-of-living and cost-of-goods indexes are a topic explored in a report by the National Academies of Sciences, Engineering, and Medicine (NASEM) that one reviewer recommended USDA review and cite throughout the report.¹ In response to this suggestion, USDA expanded the discussion around the difference between the availability of data for different store types versus the presence of store types in different locations and included and cited information from the recommended NASEM report.

Geometric versus arithmetic means

As outlined in equations 6 and 7 in Appendix C of the report, average unit prices by UPC are calculated using arithmetic means weighted to reflect the relative importance of

different store types and the relative importance of each store within its respective type. One reviewer raised an alternative to this approach and suggested that USDA consider instead employing an unweighted geometric mean, as doing so would be consistent with current BLS practice and is generally preferred in index number construction. In response to this suggestion, USDA added a sensitivity analysis that calculated the index using an unweighted geometric mean rather than a weighted arithmetic mean.

Additional tabulations and reproducibility

The draft report reviewed by the six experts included minimal results tabulations, in part because the results of the analysis are simple: one index number for each of Anchorage and Honolulu. However, one reviewer recommended adding additional data points to provide transparency on how the analysis was conducted and to enable the public to reproduce the results. Specifically, the reviewer recommended expanding table 4 to include details on the cost share of each TFP Market Basket Category and to produce an additional table that presents price differentials and cost shares at a lower level of aggregation. In response to this suggestion, USDA added information on cost shares to table 4 in the final report and prepared an online supplement that includes price differentials at a lower level of aggregation, as well as cost share weights that enable the public to reproduce the analysis.

Summary

USDA incorporated feedback provided by the six reviewers into the final report by (1) making editorial and organizational changes to the report where appropriate, (2) clarifying and expanding explanations in the report text on issues that reviewers raised, (3) conducting new sensitivity analyses in response to feedback, and (4) preparing an online supplement that enables users to reproduce the main results of the analysis.

¹ National Research Council. *At What Price?: Conceptualizing and Measuring Cost-of-Living and Price Indexes*. Washington, DC: The National Academies Press; 2002. Available at: <https://nap.nationalacademies.org/catalog/10131/at-what-price-conceptualizing-and-measuring-cost-of-living-and>. Accessed January 4, 2023.

Appendix

Charge to the Quality of Information Act Peer Reviewers *Estimating Costs of the Thrifty Food Plan in Alaska and Hawaii*

The Thrifty Food Plan (TFP), published by the U.S. Department of Agriculture (USDA) represents a nutritious, practical, and cost-effective diet. The foundation of the TFP is a set of Market Baskets applicable to various age-sex groups that outline nutrient-dense foods and beverages, their amounts, and associated costs that can be purchased on a limited budget to support a healthy diet through nutritious meals and snacks at home. The TFP informs Supplemental Nutrition Assistance Program (SNAP) benefits and is a critical element in supporting the Department's commitment to improve food security and nutrition security. As directed by Congress in the 2018 Farm Bill to reevaluate the TFP based on current food prices, food-composition data, consumption patterns, and dietary guidance by 2022 and every 5 years thereafter, the U.S. Department of Agriculture (USDA) conducted an evidence-driven reevaluation of the TFP for the mainland United States in 2021. Importantly, the 2021 reevaluation that determined the costs of the TFP in the mainland United States was used, along with a temporary adjustment, to set interim costs of the TFP in Alaska and Hawaii, which were later inflation-adjusted to reflect June 2022 price levels.

This report notes relevant statutory and regulatory language, discusses the current basis of the costs of the TFP in Alaska and Hawaii, outlines USDA's evaluation of existing price indexes and food price data sources, identifies the most appropriate data source from these options, and describes USDA's approach for using this data source to estimate alternative June 2022 TFP costs for Alaska and Hawaii.

Your charge is to independently review the draft *Estimating Costs of the Thrifty Food Plan in Alaska and Hawaii* for clarity and technical accuracy. To yield an estimated cost of the TFP in Hawaii and the base cost of the TFP in Alaska, food price adjustments were developed and applied to the June 2022 cost of the TFP in the mainland United States. Thus, the Market Baskets developed as part of the 2021 reevaluation of the TFP for the mainland United States serve as the foundation of the TFPs in Alaska and Hawaii. Using a food price adjustment-based approach aligns with Federal regulations (7 C.F.R. § 273.10(e)(4)) which specify that the respective TFPs for Alaska and Hawaii are to be adjusted for the price of food in Anchorage and Honolulu relative to the 48 States and DC. A full report describing the reevaluation of the development of the TFP for the mainland United States may be a helpful reference and can be found at: <https://www.fns.usda.gov/resource/thrifty-food-plan-2021-0>.

Please note that this report is confidential and pre-decisional. Please do not share this report or its findings. Formal USDA clearance of the report will occur after the completion of this peer review.

USDA/FNS/CNPP thanks you for participating in the review of the draft *Estimating Costs of the Thrifty Food Plan in Alaska and Hawaii*.