

ESTIMATED RETAIL VALUE OF THE AVERAGE FDPIR FOOD PACKAGE AS DELIVERED IN FISCAL YEAR 2009

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This report estimates the retail value of the average Food Distribution Program on Indian Reservations (FDPIR) food package delivered to FDPIR participants in fiscal year (FY) 2009. The estimated retail value of the average FDPIR food package as delivered in FY 2009 was \$78.44 per month per FDPIR participant. The report's retail price estimate probably understates the true retail value of the FDPIR food package because the cost of food from retailers located on or near Indian reservations is likely above national average retail food costs. The average SNAP benefit per person in FY 2009 was \$125.31 per month.

Background

The Food Distribution Program on Indian Reservations (FDPIR) is an alternative to the Supplemental Nutrition Assistance Program (SNAP) for low-income households on Indian reservations and low-income Indian households in designated service areas on or near reservations or in Oklahoma. FDPIR implements section 4(b) of the Food and Nutrition Act of 2008, as amended, to allow Indian Tribal Organizations (ITOs) to operate a food distribution program for households who prefer receiving USDA foods in lieu of SNAP benefits.

FDPIR Facts and Costs in Brief

In fiscal year (FY) 2009, five States and 99 ITOs administered 111 programs on 271 Indian reservations, pueblos, rancherias, and Alaska Native villages. Nutrition assistance was provided to an average of 95,000 persons (in 40,000 households) per month.

The total cost of FDPIR in FY 2009 was \$109.6 million; this figure includes all Federal and non-Federal outlays for food, administration, logistics, delivery, and nutrition education.

Estimated Retail Value of the Average FDPIR Food Package as Delivered in FY 2009

The estimated retail value of the average FDPIR food package as delivered in FY 2009 was \$78.44 per month per FDPIR participant. As explained below, these estimates probably underestimate the true retail value of the average FDPIR food package because the cost of food from retailers located on or near Indian reservations is likely above national average retail food costs. In contrast, the average SNAP benefit per person in FY 2009 was \$125.31 per month.¹

Note: These estimates include all FDPIR foods delivered in FY 2009, i.e., both entitlement and “bonus” foods (in FY 2009, the only bonus food delivered was frozen ham).

Methodology

The estimate of the retail value of the average FDPIR food package as delivered began with the quantities of USDA foods as delivered in FY 2009 reported in FDPIR administrative data. Using the FDPIR food fact sheets,² FNS constructed data mining programs that scanned the AC Nielsen Homescan Database for calendar year (CY) 2008 for foods purchased in retail stores that matched FDPIR food specifications as closely as possible (e.g., ingredients, salt/sugar/fat content, container type, flavors, package sizes, etc.), while still allowing for enough purchase observations to give a reliable average price per ounce (or fluid ounce) of the food item.³ For most foods, very close matches for FDPIR/USDA foods were available in the Homescan database. For a few foods, the Homescan data did not contain observations that matched FDPIR's size or container specifications but did match on all other characteristics. These close matches were used where needed.

The Homescan database relies on Universal Product Codes (UPC) to match prices paid with product descriptions. The database lacks detailed product information for non-UPC-coded items such as non-

² These fact sheets are online at USDA, “Commodity Fact Sheets,” <www.fns.usda.gov/fdd/programs/fdpir/cfs_fdpir.htm>.

³ FNS only used the purchases from low-income households in the database, defined for the purpose of this study as households at or below 185% of the poverty level. Using only households eligible for FDPIR did not leave enough observations in many foods to form reliable estimates of average food prices. FNS also used only undiscounted purchases (i.e., purchases that were not subject to a coupon, store special, etc.) in this analysis. A few foods did not have reliable pricing data available in Nielsen, so alternative data sources (such as the current lowest non-discounted price on supermarket websites or the prices of substitutable goods) were used for these foods.

¹ USDA, “SNAP: Average Monthly Benefit per Person,” <[http://www.fns.usda.gov/pd/18SNAPavg\\$PP.htm](http://www.fns.usda.gov/pd/18SNAPavg$PP.htm)>.

packaged fresh produce. For those items FNS computed average prices from websites for a geographically diverse sample of food retailers.⁴

Once FNS had a reliable estimate of the average price per ounce or fluid ounce of each USDA food, FNS calculated the average retail price per pound or pound equivalent for each food. FNS then calculated the retail value by food type of all foods distributed by FDPIR in FY 2009. The average monthly retail value of the average FDPIR food package was then calculated using FDPIR participation data. (A listing of all FDPIR foods issued to participants in FY 2009, categorized by food group, and total cost to USDA, is available on the FNS website at <http://www.fns.usda.gov/ora/MENU/Published/FoodDistribution/FDStudies.htm>.)

Methodological Advantages

This estimation approach has both advantages and disadvantages. One advantage is that this methodology mitigates the influence of seasonal variation by averaging both retail value and FDPIR food costs as delivered over an entire year. Another advantage is that it is based on a large number of observations of actual retail food purchase transactions, which should lead to relatively reliable average retail price estimates for the various foods.

Methodological Caveats

The greatest disadvantage of this approach is that these estimates almost certainly understate the true retail value of the average FDPIR food package as delivered if one were to purchase these foods where they are distributed. Many reservations are in isolated areas with limited access to retail food outlets, supermarkets, etc. The Homescan data, on the other hand, are nationally representative data, so the food prices generated from that data are national averages – not averages in areas on or near reservations. Therefore, FNS expects that the true retail value of the average FDPIR food package as delivered is higher than the estimate of \$78.44 per month per FDPIR participant. FNS expects that this estimate is too low because it does not take into account the unknown additional costs of logistics, transportation,

⁴ The prices for these items, a relatively small subset of foods in the FDPIR package, were collected in January 2011. The product prices for each retailer and city are averages of two prices, one from the beginning and one from the end of January. The prices used in the analysis are averages across all of the sampled retailers. They have not been adjusted and may differ from the prices that the same retailers charged in FY 2009.

storage, and distribution incurred by retailers located in areas where FDPIR food packages are distributed. Kaufman et al. (1997) support this conclusion; although they do not deal specifically with ITO areas, they estimate that food prices in non-metropolitan areas may be as much as six percent higher than in metropolitan locations.

Another potential problem is that the timeframes of the price data (CY 2008) and the food distribution data (FY 2009) do not line up exactly; this could cause error in the estimates if retail prices were significantly different in these two time periods.

Acknowledgements

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FDPIR participation and cost data are taken from routine monthly and yearly administrative reporting data provided by the States and ITOs that administer FDPIR in each State and ITO. Retail prices were taken primarily from the CY 2008 AC Nielsen Homescan (now called National Consumer Panel) dataset. Additional retail data were collected from a sample of food retailer Web sites.

References

- Kaufman et al. [1997], "Do the Poor Pay More for Food?," Agricultural Economics Report No. 759, <www.ers.usda.gov/publications/AER759/>.
- USDA, "Commodity Fact Sheets," <www.fns.usda.gov/fdd/programs/fdpir/cfs_fdpir.htm>.
- USDA, "SNAP: Average Monthly Benefit per Person," <[http://www.fns.usda.gov/pd/18SNAPavg\\$PP.htm](http://www.fns.usda.gov/pd/18SNAPavg$PP.htm)>.
- USDA/FNS, Administrative Data.

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