Enriching Analysis by Linking Data: The National Household Food Acquisition and Purchase Survey (FoodAPS)

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Economic Research Service

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Integrating Data

FoodAPS

Nutrition

Administrative

Store Location and Characteristics

Food Item Descriptions

Food Environment
Food Item Descriptions

Proprietary Scanner Data from IRI

– Consumer household purchases
  • Retail food purchase data from 120,000+ households

– Retail sales
  • Weekly food sales data from 48,000+ stores

– Product information
  • Item-level product descriptions and attributes
  • 300+ product characteristics for over 1 million UPCs
### Weekly household spending by food group

*adjusted for household size and composition*

<table>
<thead>
<tr>
<th>Household type</th>
<th>Food group</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNAP</td>
<td>Grains</td>
</tr>
<tr>
<td></td>
<td>Vegetables</td>
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<tr>
<td></td>
<td>Fruits</td>
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<tr>
<td></td>
<td>Milk, yogurt, and cheese</td>
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<td></td>
<td>Meats and beans</td>
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<tr>
<td></td>
<td>Prepared meals</td>
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<td></td>
<td>Oils, dressings, and other table fats</td>
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<td></td>
<td>Beverages</td>
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<tr>
<td></td>
<td>Desserts and snacks</td>
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<tr>
<td></td>
<td>Vitamins, baby food, and formula</td>
</tr>
<tr>
<td></td>
<td>Not coded</td>
</tr>
<tr>
<td>Eligible non-SNP</td>
<td>Grains</td>
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<td></td>
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**Source:** USDA, ERS (ers.usda.gov/foodaps)
Nutrition

Nutrient data:
- Micro- and macro-nutrient content
- Food Pattern Equivalent (FPE) values

Sourced from USDA Nutrient Databases:
- National Nutrient Database for Standard Reference (SR)
- Food and Nutrient Database for Dietary Studies (FNDDS)
- Food Patterns Equivalent Database
- Food Patterns Ingredients Database
- Fourth School Nutrition Dietary Assessment Study
- What We Eat in America (WWEIA) Food Categories
Healthy Eating Index-2010 scores, by nutrition information use

<table>
<thead>
<tr>
<th>Score</th>
<th>Food at home</th>
<th>Food away from home</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households</td>
<td>51.6</td>
<td>42.6</td>
</tr>
<tr>
<td>Low</td>
<td>47.3</td>
<td>41.4</td>
</tr>
<tr>
<td>Medium</td>
<td>53.9</td>
<td>43.1</td>
</tr>
<tr>
<td>High</td>
<td>55.7</td>
<td>43.9</td>
</tr>
</tbody>
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Note: The Healthy Eating Index-2010 score measures how closely a person’s diet conforms to the 2010 Dietary Guidelines for Americans. Scores range from 0 to 100, with a score of 100 indicating full conformance to these guidelines.

Source: Zeballos and Anekwe (2018)
Weekly calories and food spending by household type, 2012

**Weekly calories per adult equivalent**

- SNAP households: 16,331 At home, 5,067 Away from home
- Non-SNAP households, income <= 185 percent of FPG: 15,464 At home, 4,147 Away from home
- Non-SNAP households, income > 185 percent of FPG: 16,709 At home, 5,772 Away from home

**Weekly expenditures per adult equivalent (dollars)**

- SNAP households: 44.43 At home, 11.84 Away from home
- Non-SNAP households, income <= 185 percent of FPG: 46.75 At home, 18.35*** Away from home
- Non-SNAP households, income > 185 percent of FPG: 60.53*** At home, 33.55*** Away from home

Notes: SNAP = Supplemental Nutrition Assistance Program. FPG = Federal poverty guideline. *** = statistically different from SNAP households with p < 0.01.
Source: USDA, Economic Research Service estimates using USDA’s National Household Food Acquisition and Purchase Survey data.

Source: Mancino and Guthrie (2018)
Store Locations and Characteristics

Store data:

- Location
- Standardized names
- Standardized categorization

Sourced from:

- FNS Store Tracking and Redemption System (STARS)
- InfoUSA
- Nielsen TDLinx
Share of household calories by food source

- Large grocery stores, 65.4%
- Restaurants and eating places, 17.1%
- Schools, 2.3%
- Small and specialty food stores, 2.8%
- Convenience, dollar, and other stores, 6.5%
- Other, 2.1%
- Family, friends, and social gatherings, 3.8%

Note: "Other" includes food from work, food banks, Meals on Wheels, and own production (gardening, hunting, and fishing).
Source: USDA, Economic Research Service estimates using data from USDA’s 2012-13 National Household Food Acquisition and Purchase Survey (FoodAPS).
Food Environment

Geography component:
- Location and density of different types of retailers
- Measures of access to these retailers
- Measures of food prices at different retailers
- Area demographics and food-related policies

Sourced from:
- 2010 US Census and American Community Survey
- County Business Patterns
- Nielsen TDLinx
- InfoUSA Restaurant Database
- Farmers Market Directory
- Emergency Food System Data from Feeding America
- ERS Food Access Research Atlas
- ERS SNAP Policy Database
Distances from households to food stores for selected FoodAPS respondents

SNAP = Supplemental Nutrition Assistance Program.
WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.
Note: Non-poor households have incomes above 185 percent of the Federal poverty line.
Source: USDA, Economic Research Service using data from the National Household Food Acquisition and Purchase Survey (FoodAPS), collected April 2012 to January 2013.

### Share of weekly food expenditures by place type

<table>
<thead>
<tr>
<th>Place Type</th>
<th>Access</th>
<th>Access Burdened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large grocery stores</td>
<td>Sufficient</td>
<td>N/A</td>
</tr>
<tr>
<td>Small grocery, ethnic, and specialty food stores</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Convenience, dollar, drug, and other stores</td>
<td>5%</td>
<td>11%*</td>
</tr>
<tr>
<td>Eating places</td>
<td>33%</td>
<td>26%*</td>
</tr>
</tbody>
</table>

**Sufficient access**
Households that live within 0.5 of a mile of the nearest SNAP-authorized supermarket or superstore or have their own vehicle.

**Access burdened**
Households that live more than 0.5 of a mile from the nearest SNAP-authorized supermarket or superstore and do not have their own vehicle.

Note: SNAP = Supplemental Nutrition Assistance Program. Low-income households include households participating in SNAP and households with incomes equal to or below 185 percent of the Federal poverty line. Asterisk indicates the access burdened estimate is statistically different from the sufficient access estimate with p < 0.10.


Source: Larimore and Ver Ploeg (2018)
Concluding Thoughts

FoodAPS

- Administrative
- Nutrition
- Store Location and Characteristics
- Food Item Descriptions
- Food Environment
Thank You

Contact information:
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For more information, visit:
www.ers.usda.gov/foodaps