About the WAFOOD Surveys

The Washington State (WA) Food Security Surveys (WAFOOD) first launched in the summer of 2020 as an effort to track impacts of the COVID-19 pandemic on the health, economic well-being, and food needs of Washingtonians. A 2nd survey was conducted from December 2020 to January 2021, a 3rd from July to August 2021, and a 4th from December 2022 to January 2023. The WAFOOD surveys intentionally oversample households with lower incomes and those using food assistance, to provide deeper insights on food insecurity throughout the state. This research brief reports on the 5,052 responses to the 4th survey (WAFOOD4) and focuses on food access, food consumption, food expenditures, and economic shocks. Additional findings from WAFOOD4 are available in Research Brief 12.

Key Findings

1. Many respondents reported difficulty accessing certain foods, especially animal proteins and fresh produce.
2. Compared to food secure households, households experiencing food insecurity reported much greater difficulty accessing all types of food.
3. Households experiencing food insecurity also reported less frequent consumption of fruits, vegetables, and animal proteins than those who were food secure.
4. Over half of households experiencing food insecurity reported they were unable to put any money whatsoever into savings in the past year.
5. Over one third of households experiencing food insecurity reported some recent loss of income in the past month.
6. Households experiencing food insecurity were five times more likely than food secure households to experience eviction or foreclosure.

Nutrient-Rich and Perishable Foods Reported as More Difficult to Access

- Almost one third of all respondents reported difficulty accessing red meat (Figure 1).
- Fresh vegetables and fruits were reported as difficult to access by almost a quarter of all respondents.
- Eggs and dairy products were also commonly reported as difficult to access (by 20% and 18% of respondents, respectively).

![Bar Chart]

Figure 1. Food items reported as difficult-to-access in the past 30 days by WAFOOD4 households
Households Experiencing Food Insecurity Reported More Difficulty Accessing All Food Types

- Among food insecure households, almost half reported difficulty accessing red meat; over one-third reported difficulty accessing chicken, fresh vegetables, and fresh fruit; and over a quarter reported difficulty accessing eggs or dairy in the past 30 days (Figure 2).\(^a\)
- Most respondents in food secure households did not report difficulty accessing foods.

![Figure 2. Food items reported as difficult to access in the past 30 days by WAFOOD4 households, by household food security status\(^b\)](image)

Households Experiencing Food Insecurity Reported Less Frequent Consumption of Animal Proteins, Vegetables, and Fruit

- Less than half of respondents in households experiencing food insecurity reported daily (or more frequent) consumption of vegetables (Figure 3b).\(^a\)
- Daily (or more frequent) consumption of animal proteins and fruit was also less common among households experiencing food insecurity (Figures 3a-b).

![Figures 3a-c. Reported typical food consumption (times per day) by food category, in the past 30 days among (a) food secure households, (b) households experiencing food insecurity, and (c) WAFOOD households overall](image)

On Average, Households Experiencing Food Insecurity Spent Less on Groceries and Eating Out Than Food Secure Households

- Across all households, the bulk of food spending was on groceries (average of $250 per person per month) rather than eating out (average of $84 per person per month) (Figure 4).
- In comparison to food secure households, respondents in households experiencing food insecurity spent less on groceries and eating out.
- Households with annual incomes <$35K had similar spendings regardless of food security status. At higher income levels, households experiencing food insecurity spent less on both groceries and eating out than food secure households.
Income Loss and Eviction More Common Among Households Experiencing Food Insecurity

- Over half of households experiencing food insecurity (53%) reported they were unable to put any money into savings over the past year, compared to 19% of food secure households (Figure 5).
- Over one third of households experiencing food insecurity (38%) had a member of their household face a loss of income in the past 30 days, compared to 12% of food secure households.
- While few WAFOOD4 households experienced an eviction or foreclosure in the past 30 days, those experiencing food insecurity were five times (5% vs. 1%) as likely to experience this event than households that were food secure.

Over Half of Households Experiencing Food Insecurity Were Never Able to Put Money Into Savings in the Past Year

- While 42% of food secure households were able to put money into savings almost every month in the past year, this was reported by only 4% of households experiencing food insecurity (Figure 6).
- Among all WAFOOD4 households, 35% were never able to put money into savings in the past year.

WAFOOD4 State Coverage

- The WAFOOD4 survey included 5,052 unique respondents from all counties in WA (Figure 7).
- Over half (54%) of survey responses were from King, Spokane, Pierce, Snohomish, Clark, and Kitsap counties.
Respondent Characteristics

- Compared to Washington State overall, the WAFOOD4 sample had more 35-54-year-olds, women, college graduates, and households with annual incomes <$35,000 (Table 1).
- Compared to prior WAFOOD survey waves, the WAFOOD4 sample had a relatively high proportion of households with annual incomes <$35,000.5

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>WAFOOD4</th>
<th>Washington State</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 34</td>
<td>24%</td>
<td>31%</td>
</tr>
<tr>
<td>35 to 54</td>
<td>41%</td>
<td>33%</td>
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<td>55 and older</td>
<td>34%</td>
<td>36%</td>
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<tr>
<td>Gender identity</td>
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<tr>
<td>Woman</td>
<td>77%</td>
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<tr>
<td>Man</td>
<td>19%</td>
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<td>Race and/or ethnicity</td>
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<tr>
<td>Non-Hispanic White</td>
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<td>67%</td>
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<td>5%</td>
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<tr>
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<td>13%</td>
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<tr>
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<td>4%</td>
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<tr>
<td>AI/AN, NH/OPI, or self-described</td>
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<td>11%</td>
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<tr>
<td>Educational Attainment</td>
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<tr>
<td>Some college or less</td>
<td>56%</td>
<td>63%</td>
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<tr>
<td>Bachelor’s degree or higher</td>
<td>43%</td>
<td>37%</td>
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<tr>
<td>Annual household income</td>
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<tr>
<td>&lt;$35,000</td>
<td>40%</td>
<td>20%</td>
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<td>$35,000 to $74,999</td>
<td>30%</td>
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<td>$75,000+</td>
<td>24%</td>
<td>52%</td>
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<tr>
<td>Married</td>
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<td>50%</td>
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<td>Children in household</td>
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<tr>
<td>One or more children</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>No children</td>
<td>54%</td>
<td>70%</td>
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</table>

1US Census Bureau 2019 American Community Survey 1-year estimates.
2AI/AN=American Indian or Alaskan Native, NH/OPI=Native Hawaiian or Other Pacific Islander.

How to Interpret These Findings

The WAFOOD surveys intentionally oversampled households with lower incomes and those using food assistance, in order to provide deeper insights on food insecurity throughout the state. All survey waves used a mix of convenience and recontact sampling. For the convenience sample, the research team, together with a diverse network of partner organizations across WA, recruited new respondents via social media, email, and text. For the recontact sample, the research team asked individuals who completed prior surveys and agreed to be recontacted to participate in newer waves directly via email. All four WAFOOD surveys were conducted online.

The limitations of convenience sampling and an online survey mean that some groups of Washingtonians could have been overrepresented, underrepresented, or in some cases—such as those without access to computers, tablets, smart phones, or the internet—missed entirely. In interpreting these findings, it is important to remember that WAFOOD data reflect those who responded to the surveys, but do not necessarily represent WA’s population as a whole; Table 1 shows how respondent demographics compared to the state overall. Nevertheless, WAFOOD data enable an important examination of economic and food needs among WA residents.
Technical Notes

a. "Vegetables" includes the total consumption of "other vegetables" and "salad" from the Behavioral Risk Factor Surveillance System (BRFSS).

b. In this brief, food security is always presented in aggregate and refers to high food security and marginal food security. Food insecurity, where presented in aggregate, is the sum of low food security and very low food security. The USDA food security scale categories, based on the USDA 18-item food security scale, are:
   - High food security: no reported indications of food-access problems or limitations.
   - Marginal food security: one or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.
   - Low food security: reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
   - Very low food security: reports of multiple indications of disrupted eating patterns and reduced food intake.

c. Proportion of low-income households and food insecurity in prior WAFOOD waves:
   - WAFOOD1 (ending July 2020): 30% of sample <$35,000, 30% food insecure
   - WAFOOD2 (ending Jan 2021): 32% of sample <$35,000, 27% food insecure
   - WAFOOD3 (ending Aug 2021): 41% of sample <$35,000, 45% food insecure

Acknowledgements

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Further Information

For more information and prior WAFOOD briefs:
- The WAFOOD project page: https://nutr.uw.edu/cphn/wafood/
- The Washington State Food System Assessment: https://nutr.uw.edu/cphn_project/washington-state-food-systems-assessment/

About the WAFOOD Team

The WAFOOD survey is a joint effort between the University of Washington (UW) and Washington State University (WSU). The WAFOOD4 team comprises Jennifer J. Otten, Associate Professor, Nutritional Sciences Program (NSP) and DEOHS at the UW School of Public Health (SPH); Marie L. Spiker, Assistant Professor, NSP, Epidemiology, and DEOHS at UWSPH; Jane Dai, PhD Student, Health Systems and Population Health at UWSPH; Ashley S. Tseng, PhD Candidate, Epidemiology at UWSPH; James H. Buszkiewicz, Research Investigator, Epidemiology at University of Michigan SPH; Shawna Beese, Assistant Professor of Rural Health Promotion at WSU Health Sciences; Sarah M. Collier, Assistant Professor, NSP and DEOHS at UWSPH; and Alan Ismach, Research Coordinator, DEOHS at UWSPH.

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