

Spotlight Series Brief: Comparing Food Insecure and Food Secure Washington State Households During the COVID-19 Pandemic

June to July 2020, Research Brief 7

About the WAFOOD Survey

The Washington (WA) State Food Security Survey (WAFOOD) was deployed from June 18th to July 31st, 2020. The goal was to understand the impacts of the COVID-19 pandemic on economic and food security among WA State residents. A total of 2,616 responses from 38 of 39 WA State counties were received.

The United States Department of Agriculture (USDA) defines food insecurity as a household-level economic and social condition of limited or uncertain access to food. This spotlight series brief focuses on the 784 (30%) respondent households who were food insecure during the pandemic and contrasts their experience with the 1,730 food secure households. We examine how the pandemic impacted employment, income and food assistance, economic security, food shopping patterns, diet, health, and mental wellbeing.

Key Findings

1. Food insecurity prevalence was estimated at 30% over the first 3-4 months of the pandemic.
2. Very low food security was reported by 17% of households and low food security by 13%.
3. Half of those newly unemployed were food insecure.
4. Rising food costs was the most frequently cited barrier to healthier diets for the food insecure.
5. Paying for rent and food were the top financial concerns of food insecure households.
6. Food insecurity was linked to poor and worsening diet quality.
7. Respondents in food insecure households reported more stress, anxiety, and depression.
8. COVID-19 risk factors were more prevalent in food insecure households.

Very Low Food Security Found in 17% of WAFOOD Households

- The USDA 6-item validated food security scale was used to classify households into three categories: high or marginal, low, and very low food security (see page 6 for more information).
- Very low food security was reported by 17% of households with another 13% of households reporting low food security (Figure 1).
- Food insecure households were defined as those with low or very low food security (30%) while those with high or marginal food security (66%) were considered food secure.

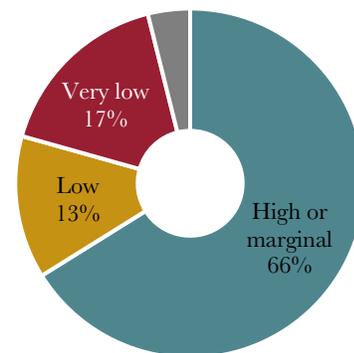


Figure 1. Food security scale categories (n = 2,616)

More Food Insecurity in Consumer-Facing, High-Contact and Food-Based Services

- The highest prevalence of food insecurity (41%) was reported by those in high-contact, consumer-facing services, including hospitality, installation and repair, and personal care (Figure 2).

- High food insecurity prevalence (39%) was also reported by respondents in food-based services, including farming, agriculture, fishing, food delivery, food sales, and food preparation.

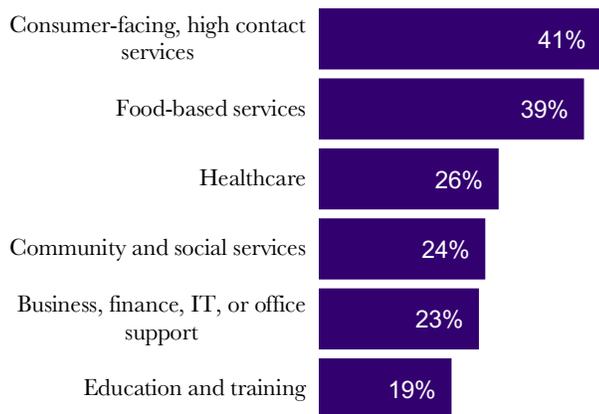


Figure 2. Food insecurity by industry (n = 2,616)

High Food Insecurity Among the Newly Unemployed

- Of the 115 respondents who were laid off during the pandemic, 50% were food insecure (Figure 3).
- Of the 193 who experienced temporary workplace closures, one-third (34%) were food insecure.
- One-third (34%) of the 419 who reported reduced hours were also food insecure.

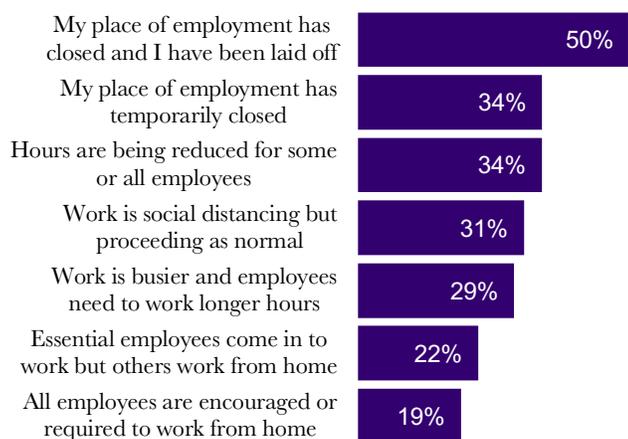


Figure 3. Food insecurity by employer response

Food Insecurity Linked to Reduced Food Expenditures

- Monthly per capita food-at-home expenditures among all respondents were \$183 before and \$188 during the COVID-19 pandemic (Figure 4).

- In food insecure households, monthly expenditures fell 10% from \$156 to \$141 per person comparing before to during the pandemic.
- In food secure households, monthly expenditures rose 7% from \$197 to \$211 per person comparing before to during the COVID-19 pandemic.

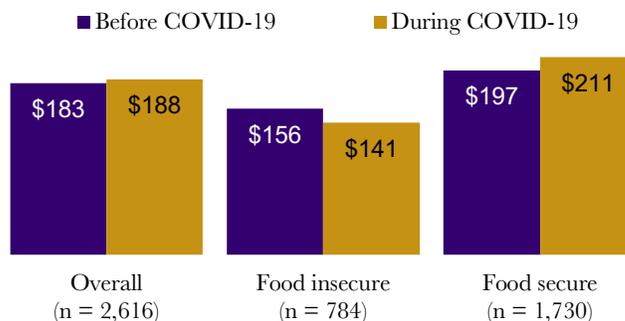


Figure 4. Monthly per capita food-at-home expenditures by household food insecurity

Greatly Reduced Expenditures for Eating Away From Home

- Overall, monthly per capita expenditures for eating out were estimated at \$79 before and \$37 during the COVID-19 pandemic (Figure 5).
- In food insecure households, monthly eating out expenditures fell 31% from \$58 to \$40 per person comparing before to during the pandemic.
- In food secure households, monthly eating out expenditures fell 66% from \$89 to \$30 per person comparing before to during the pandemic.

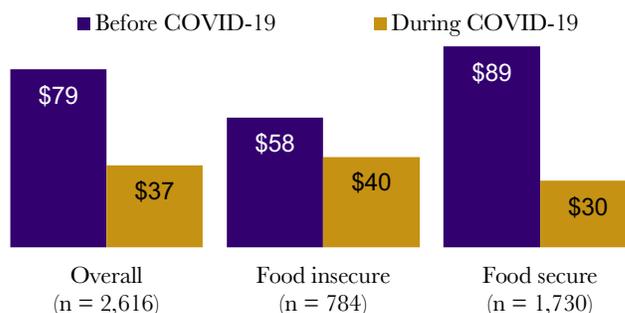


Figure 5. Monthly per capita food-at-home expenditures by household food insecurity

Rising Food Prices Cited as the Main Barrier to Food Access

- Most (83%) food insecure households cited the rising cost of food as a key barrier (Figure 6).

- Food insecure households also reported an inability to afford to stockpile foods (66%) and safety concerns when shopping (64%) as key issues.

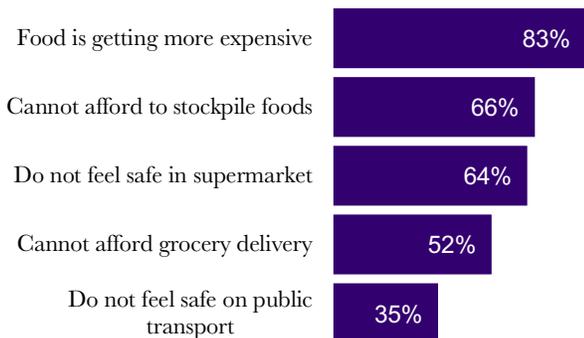


Figure 6. Food access barriers in food insecure households (n = 784)

Access to Healthier Foods was More Limited Among the Food Insecure

- Reduced access to food was reported across all households (Figure 7).
- However, food insecure households reported more limited access to meat, fresh vegetables, and fresh fruit compared to food secure households.

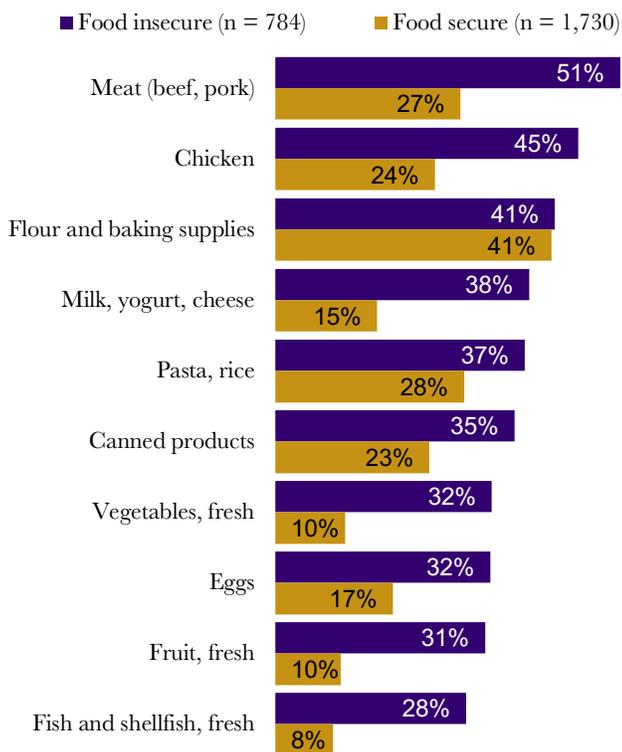


Figure 7. Reported lack of access to food items at grocery and other food stores by household food insecurity

Link Between Food Insecurity and Financial Concerns

- Virtually all food insecure households (96%) and half of food secure households (49%) had financial concerns (Figure 8 and 9).
- Food insecure households were more concerned with their ability to pay for rent (43% vs. 19%) and food (21% vs. 3%).

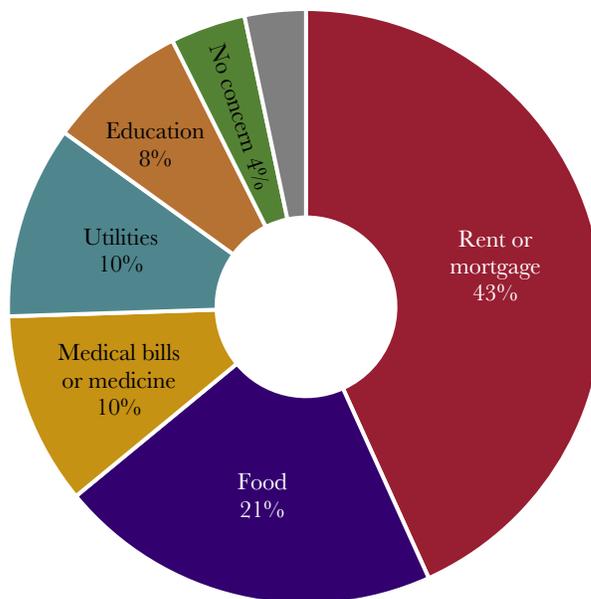


Figure 8. Primary financial concerns of food insecure households (n = 748)

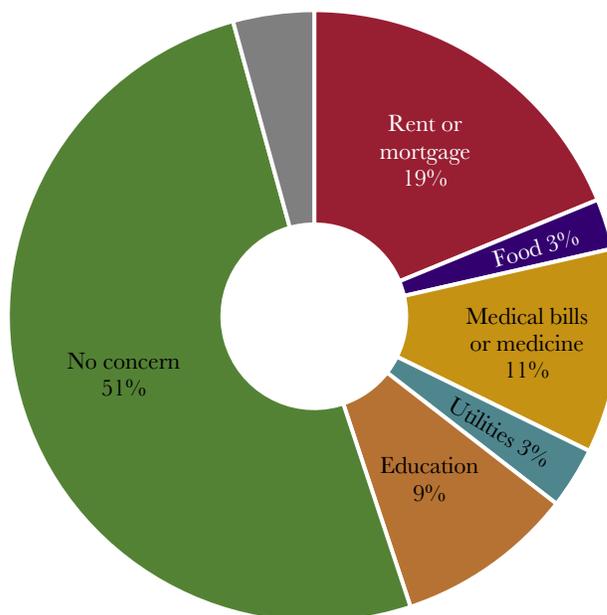


Figure 9. Primary financial concerns of food secure households (n = 1,730)

Food Insecurity Linked to Poor and Worsening Diet Quality

- Over half (55%) of respondents living in food insecure households rated their diets as fair/poor and only 11% rated diets as very good/excellent (Figure 10).
- Of food insecure respondents who rated their diet as fair/poor, 78% said their diet worsened during the pandemic.
- By contrast, 40% of respondents living in food secure households, rated their diet as very good/excellent and only 22% rated diets as fair/poor (Figure 11).
- Of food secure respondents, who rated their diets as very good/excellent, 88% maintained or improved their diet quality.

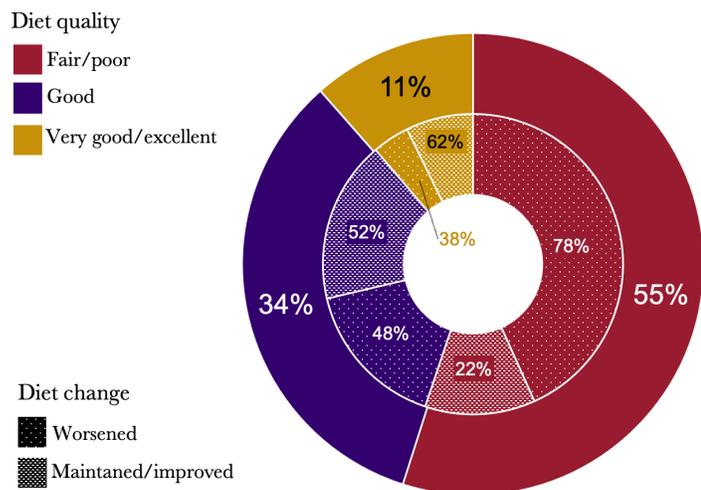


Figure 10. Diet quality among respondents living in food insecure households (n = 784)

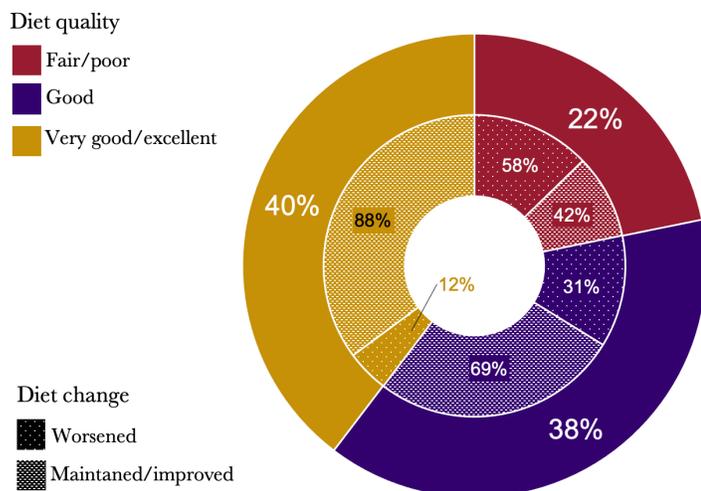


Figure 11. Diet quality among respondents living in food secure households (n = 1,730)

Food Insecurity Linked to Poor Mental Health

- Food insecure respondents were more likely to feel anxious or depressed, as determined using the validated Patient Health Questionnaire 4-item (PHQ-4) assessment tool (Figure 12).
- Feeling stressed all/most of the time (past 30 days) was more prevalent in food insecure respondents.
- Food insecurity was linked to more severe anxiety and depression (27% vs. 12%) (Figure 13 and 14).

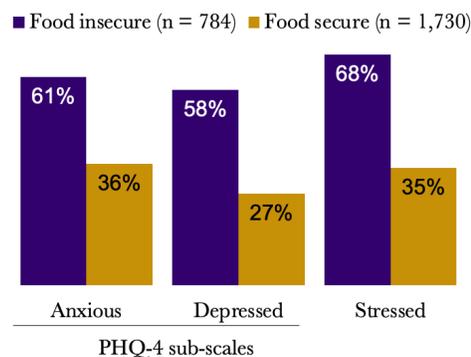


Figure 12. Mental health by household food insecurity

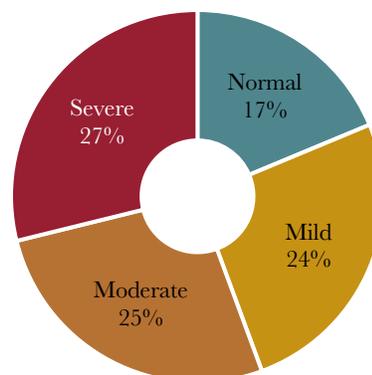


Figure 13. PHQ-4 anxiety and depression scale among respondents living in food insecure households (n = 784)

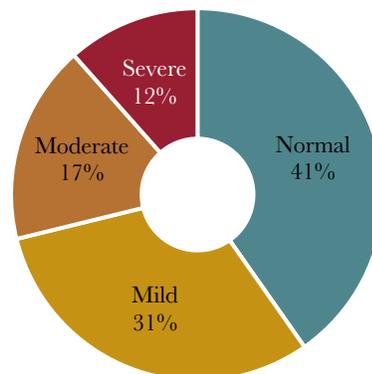


Figure 14. PHQ-4 anxiety and depression scale among respondents living in food secure households (n = 1,730)

Food Insecurity Linked to COVID-19 Risk Factors

- Food insecure respondents were more likely to be obese (41% vs. 28%) (Figure 15).
- Food insecure respondents were also almost twice as likely to be diabetic (21% vs. 11%) when compared to the food secure. Our definition of diabetes included those who had Type I or II, prediabetes/borderline, and gestational.

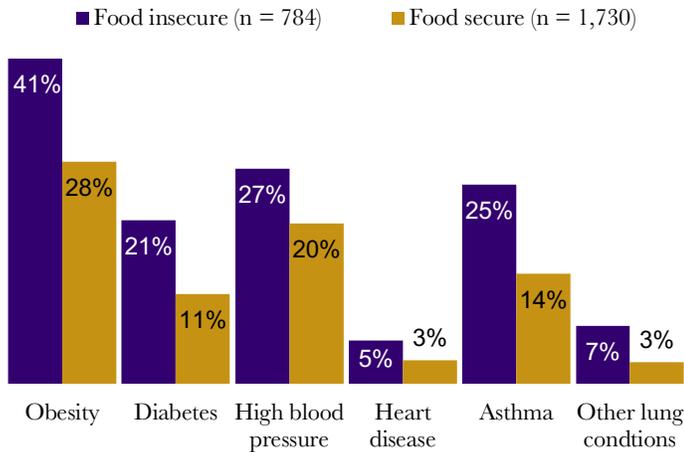


Figure 15. Chronic disease risk factors for COVID-19 by household food insecurity

- Food insecure respondents were more likely to have high blood pressure (27% vs. 20%) and heart disease (5% vs. 3%) compared to their food secure counterparts.
- Food insecure respondents were also more likely to suffer from asthma (25% vs. 14%) or other lung conditions (7% vs. 3%).

The Vital Role of Food Assistance

- Participation in Supplemental Nutrition Assistance Program (SNAP), School Meals, and food banks declined during COVID-19 compared to before COVID-19 (Figure 16).
- Receipt of Summer School Meals, Women, Infants, and Children (WIC), grocery vouchers, and mobile food boxes increased.
- Despite shifts in the participation in specific food assistance programs, overall receipt of any food assistance remained steady at 59% during COVID-19 compared to before.

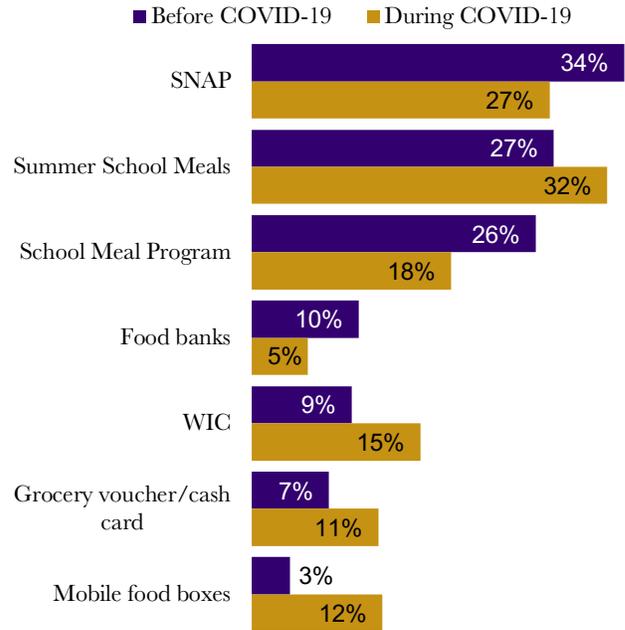


Figure 16. Food assistance use among food insecure households (n = 748)

Food Insecure Households Worry That They Do Not Qualify for Food Assistance

- Of the 466 food insecure households who received any food assistance, over half (54%) had worried that they would not qualify (Figure 17).
- Many (40%) said that the amount of benefits they received were insufficient to meet their needs.

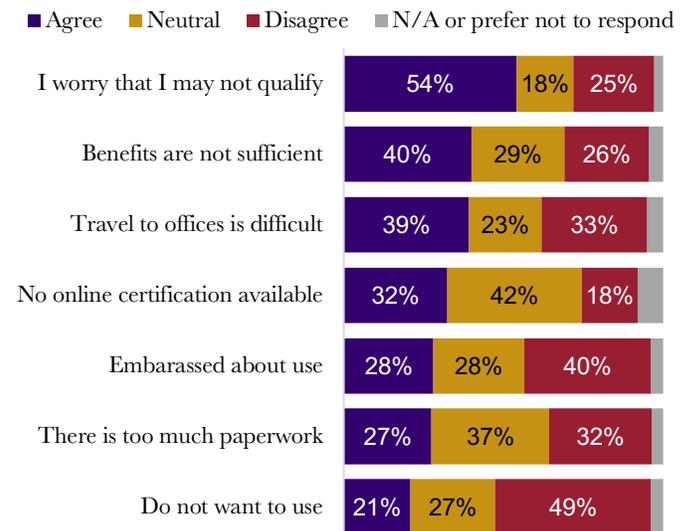


Figure 17. Barriers to food assistance program use among food insecure respondents using food assistance (n = 466)

Who Lives in Food Insecure Households?

- Food insecure respondents were younger with 76% age 18 to 54 years (Figure 21).
- More food insecure respondents were persons of color (13% Hispanic, 6% Asian, and 13% other). The category “other” includes Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and other self-identified categories.
- Over 50% of the food insecure had incomes less than \$35,000 and some college education or less.

Food Insecure Households (n = 748) Food Secure Households (n = 1,730)

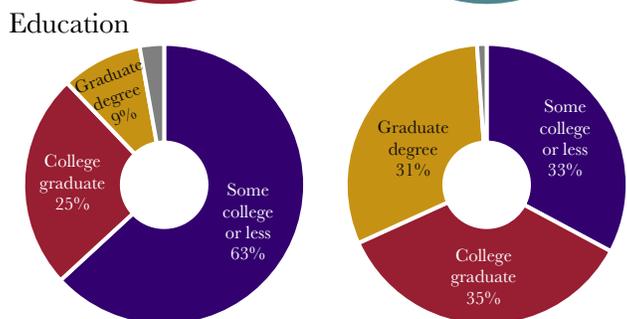
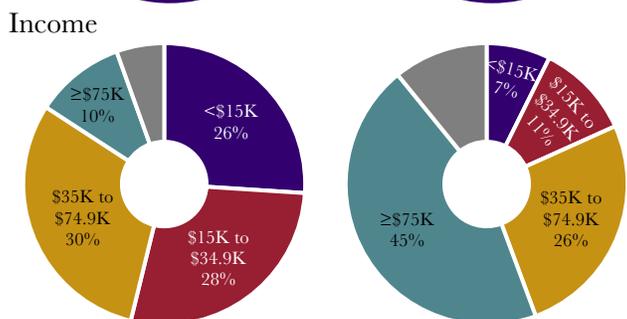
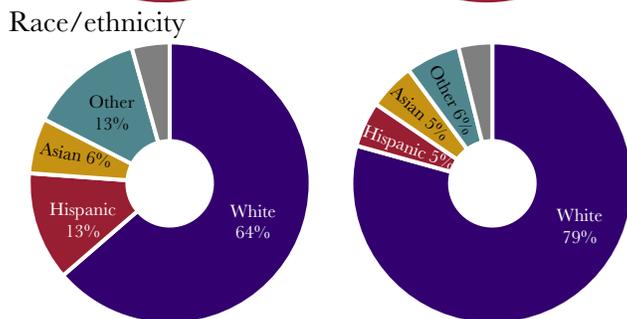
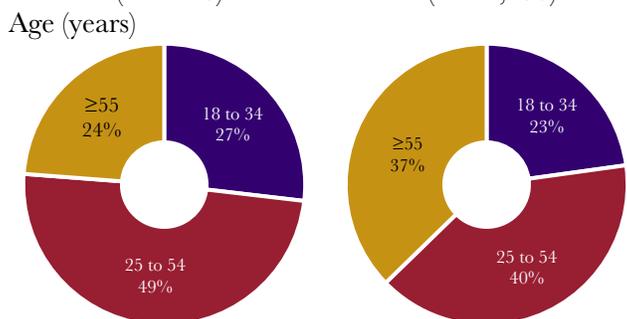


Figure 21. Sociodemographics by food insecurity

- More food insecure respondents were single.
- More food insecure households had children: 58% versus 36% in food secure households.
- Food insecure households were more likely to rent their home: 63% versus 31% for the food secure.

USDA Food Security Questions

- Answers to these six questions are the basis for this food security assessment tool (Figures 18-20).
- Food insecurity was accessed over the 3-4 months following the COVID-19 shutdown (March 15th).
- Not being able to afford food (sometimes or often) was reported by 33% of respondents.
- Nearly 25% skipped meals, cut meals, or ate less.
- Hunger was reported by 18%.
- Of 593 respondents who reported skipping meals, 64% did so nearly every month.

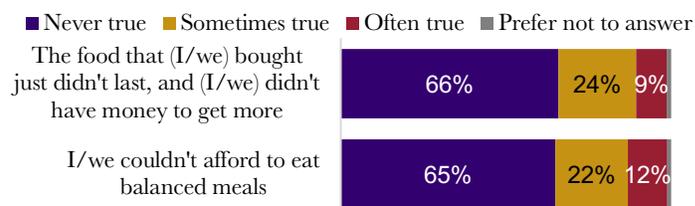


Figure 18. USDA food security scale questions (n = 2,616)

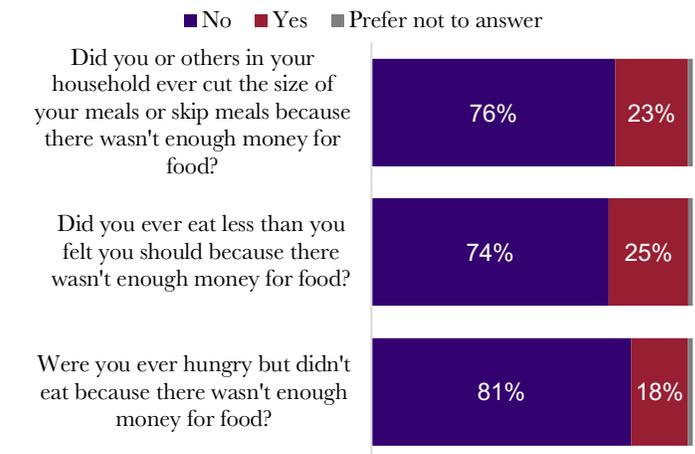


Figure 19. USDA food security scale questions (n = 2,616)

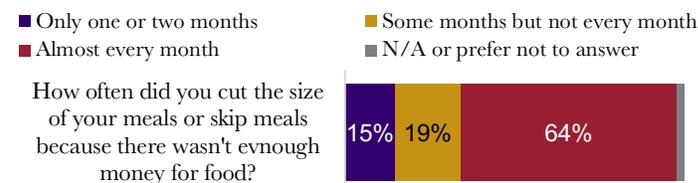


Figure 20. Frequency of skipping meals among WAFOOD respondents who skipped (n = 593)

WAFOOD Survey Statewide Coverage by County

- Most responses (59% of total) came from King (KC), Pierce, and Snohomish counties (Figure 22).
- WAFOOD demographics closely mirrored the racial/ethnic, education, and age distributions of KC and captured those of WA State.

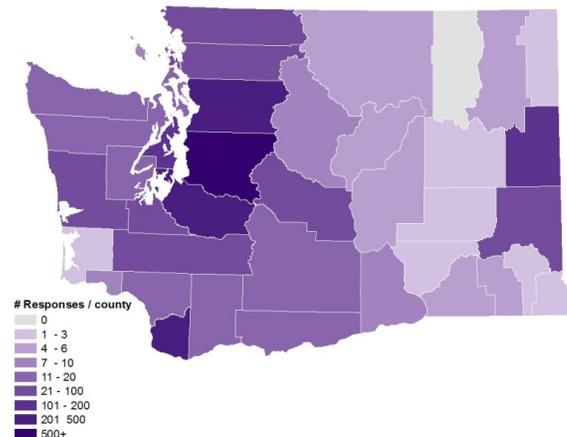


Figure 22. Geographic distribution of WAFOOD

Acknowledgements

The WAFOOD survey team wishes to thank the UWPHI, the UW School of Public Health (UWSPH), and the Department of Epidemiology for their support. We also wish to thank numerous community partners and stakeholders who helped shape this project. Among those are: WA Department of Health, WA Department of Agriculture, WA Anti-Hunger & Nutrition Coalition, WA SNAP-Ed, KC Local Food Initiative, Northwest Harvest, Washington State University (WSU) Extension, United Way of WA, and numerous food banks, food pantries, charitable organizations community organizations, county health departments, and local health jurisdictions.

We are grateful to the Nutrition and Obesity Policy Research and Evaluation Network (NOPREN) for their support of the ad-hoc COVID-19 Food Security Surveys subgroup that shared insights and surveys relevant to this project.

For More Information Please Visit

<https://nutr.uw.edu/cphn/>
<https://www.nfactresearch.org/washingtonstate>

About the WAFOOD Team

The WAFOOD survey was a joint effort between the UW and WSU with collaboration from Tacoma Community College (TCC). Adam Drewnowski is the Director of the Center for Public Health Nutrition and a Professor in Epidemiology at UWSPH. Jennifer J. Otten is the Food Systems Director and an Associate Professor in Nutritional Sciences and Environmental and Occupational Health Sciences (DEOHS) at UWSPH. Laura R. Lewis is the Director of the Food Systems Program and an Associate Professor in Community and Economic Development at WSU. Sarah M. Collier is an Assistant Professor in Nutritional Sciences and DEOHS at UWSPH. Brinda Sivaramakrishnan is a Professor of Community Health at TCC. Chelsea M. Rose is a Research Coordinator in Epidemiology at UWSPH. Alan Ismach is a Research Coordinator in Health Services at UWSPH. Esther Nguyen is a Research Assistant at UWSPH. James Buszkiewicz is a Research Scientist in Epidemiology at UWSPH.

Contact Us

phisurvey@uw.edu

About NFACT

The National Food Access and COVID Research Team (NFACT) is a national collaboration of researchers committed to rigorous, comparative, and timely food access research during the time of COVID. We do this through collaborative, open access research that prioritizes communication to key decision-makers while building our scientific understanding of food system behaviors and policies. To learn more visit nfactresearch.org.



NFACT

National Food Access and COVID Research Team

Suggested Citation

Drewnowski, Adam; Otten, Jennifer J.; Lewis, Laura R.; Collier, Sarah M.; Sivaramakrishnan, Brinda; Rose, Chelsea M.; Ismach, Alan; Nguyen Esther; Buszkiewicz James. "Spotlight Series Brief: Washington State Households with Food Insecurity During the COVID-19 Pandemic, June to July 2020, Research Brief 7" (January 2021). Washington State Food Security Survey. <https://nutr.uw.edu/cphn/wafood/brief-7>