

Food Security and Food Assistance in the Wake of COVID-19: A 5th Survey (2024) of Washington State Households

Research Brief 16

About the WAFOOD Surveys

The Washington State Food Security Survey (WAFOOD) first launched in the summer of 2020 with a focus on how the COVID-19 pandemic has impacted food security, food assistance use, economic well-being, and the health of Washingtonians. A 2nd survey was conducted from December 2020 to January 2021, a 3rd from July to August 2021, a 4th from December 2022 to January 2023, and a 5th from August to October 2024.

The WAFOOD survey uses convenience sampling and an online format. It is open to all Washington State (WA) residents over 18 years of age but intentionally oversamples 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 5,528 responses to the 5th survey (WAFOOD5) and focuses on food access, food consumption, food expenditures, and economic shocks. WAFOOD5 was available to be taken in English, Korean, Russian, Simplified Chinese, Spanish, Somali, Tagalog, Ukrainian, and Vietnamese.

Key Findings from WAFOOD Wave 5

From a sample of 5,528 Washington State residents surveyed between August - October 2024:

- 1. Over half of households experienced food insecurity, and over two thirds of households with children experienced food insecurity (see Section 1).
- 2. Nearly half of all respondents felt that groceries were hard to afford, especially animal proteins and fresh produce (see Sections 2 & 4).
- 3. To cope with price increases, nearly three quarters of food insecure respondents reported restricting the quality *and* quantity of food (see Section 2).
- 4. More than half of respondents reported being *very concerned* about future price increases (see Section 2).
- 5. More than half of households used food assistance, with the most utilized programs being food banks and pantries, and the Supplemental Nutrition Assistance Program (SNAP) (see Section 3).
- 6. More than half of food insecure respondents were depressed or anxious, and almost all reported high stress (see Section 5).

Section 1: Food Security

FOOD INSECURITY HIGH AMONG WAFOOD5 RESPONDENTS

- In the WAFOOD5 survey, **55% of respondent households experienced food insecurity** in the past month (Figure 1).
- Food insecurity represents the sum of very low food security (22%) and low food security (33%).



Figure 1. Food security among WAFOOD5 respondent households in the past month ^a

FOOD INSECURITY VARIED BY DEMOGRAPHIC GROUPS

- **Age:** Food insecurity was highest among 35-54year-olds, with 63-66% experiencing food insecurity in the past month (Figure 2).
- **Gender:** Food insecurity was highest among respondents in the transgender, nonbinary, or another gender identity category, with 69% experiencing food insecurity in the past month.
- Race and Ethnicity: Food insecurity varied by race and ethnicity. For example, 70% of Hispanic respondents and 54% of non-Hispanic respondents experienced food insecurity in the past month.
- Veteran Status: 48% of veteran and 55% of nonveteran respondents experienced food insecurity in the past month.

Very low food security I ow food security Ecod secure

Very low food security	tood secu	irity 🔳	Food se	cure
Age (years) (n)				
18 to 24 (151)	32%	26%	6	42%
25 to 34 (650)	31%	24%		46%
35 to 44 (1135)	37%	26	5%	37%
45 to 54 (1078)	43%		23%	34%
55 to 64 (1071)	35%	219	6	44%
65 to 74 (1128)	26%	17%	57	%
75+ (301)	10% 19%		71%	
Gender (n)				
Transgender, nonbinary, another (202)	42%	2	27%	37%
Woman (4381)	34%	22%	6 ·	45%
Man (861)	30%	21%	4	9%
Race (n)				
Middle Eastern/North African (10)	50°	%	30%	20%
Black (204)	49%	6	28%	23%
Some other race (83)	47%	/o	28%	25%
American Indian/Alaskan Native (132)	48%	6	26%	26%
Multi-racial (400)	47%	/ 0	20%	33%
Pacific Islander (23)	26%	26%	4	8%
White (4206)	31%	21%	4	8%
Asian (217)	24%	26%	5	0%
Ethnicity (n)				
Hispanic (470)	40%		30%	30%
Non-Hispanic (4959)	33%	21%	, L	17%
Veteran status (n)				
Non-veteran (5150)	33%	22%	0 4	45%
Veteran (349)	30%	18%	52	2%

Figure 2. WAFOOD5 household food security in the past month, by respondent demographic characteristics (textured bars indicate fewer than 30 responses) ^{b, c, d, e}

FOOD INSECURITY HIGHER AMONG HOUSEHOLDS WITH CHILDREN AND LARGER HOUSEHOLDS

- Children: 68% of households with children and 47% of households without children experienced food insecurity in the past month (Figure 3).
- Household size: 64% of households of 4 or • more experienced food insecurity in the past month.
- Home location: 56% of rural households and . 55% of urban households experienced food insecurity in the past month.



Figure 3. WAFOOD5 household food security in the past month, by respondent household characteristics ^f

FOOD INSECURITY RELATED TO EDUCATION, INCOME, AND HOUSING STATUS

- Education: Food insecurity was highest among respondents with a high school education or less, with 76% experiencing food insecurity in the past month (Figure 4).
- Income: While food insecurity was experienced at all income levels, lower income households more commonly experienced food insecurity. 82% of households under \$15,000 were food insecure.
- Employment status: 58% of unemployed and 51% of employed households were food insecure.
- Housing status: 80% of respondents who had housing situations other than owning or renting were food insecure.

Very low food security Low food security Food secure

24%

6 18%

26%

6 209 39%

Education				
High school or less	Ę	50%		26%
Some college	41	%	24	1%
College graduate	22%	20%	6	58%
Graduate degree	<mark>14%</mark> 13	%		74%
Income				
Less than \$15,000		58%		24%
\$15,000 to <\$35,000	4	9%		25%
\$35,000 to <\$75,000	31%	b	25%	4
\$75,000 to <\$150,000	14% 1	8%		68%
\$150,000 or more			93	3%
Employment status				
Unemployed, not in work force	38	%	20%	5 Z
Employed	28%	2	23%	48
Industry/Occupation				
Consumer-facing services	38	%	29	%
Food-based services	40	%	24	%
Health care	30%		22%	48
Community and social services	28%	1	9%	52
Education and training	24%	22	%	54
Business, office, tech	24%	18	%	57%
Union status				
No union contract	34%	6	22%	4
Job is unionized	26%	2	5%	49
Housing status				
Other		61%)	19%
Rent	379	%	24%	ά
Own	15% 1	5%		70%

Figure 4. WAFOOD5 household food security in the past month, by respondent socioeconomic characteristics ^{g, h, i}

FOOD INSECURITY VARIED ACROSS WA COUNTIES

 In counties with at least 30 survey responses, food insecurity by county ranged from 40% to 67% (Figure 5).

•	Very low food security Low food security Food secure				
County (n)					
Overall (5522)	33%	2	22%		45%
Skamania (5)		60%			40%
Garfield (6)	33%			50%	17%
Ferry (23)	48	%	22%		30%
Asotin (19)	47	%	ż	21%	32%
Lewis (112)	34%		33%		33%
Klickitat (23)	22%	4	13%		35%
Adams (34)	35%		29%		35%
Mason (50)	42%	5	20%	ó	38%
Clark (353)	34%		26%		40%
Franklin (49)	37%		22%		41%
King (1421)	36%		23%		42%
Lincoln (12)	25%	33	3%		42%
Walla Walla (58)	34%		22%		43%
Jefferson (37)	38%		19%		43%
Pierce (655)	34%		22%		44%
Douglas (32)	41%		16%		44%
Pend Oreille (16)	44%	6	13%		44%
Chelan (63)	30%		5%		44%
Clallam (99)	23%	329	%		44%
Whitman (58)	31%	2	4%		45%
Cowlitz (107)	36%		19%		45%
Spokane (412)	36%		19%		45%
Yakima (190)	36%		18%		46%
Kittitas (48)	38%		17%		46%
Pacific (49)	33%	2	0%		47%
Snohomish (422)	31%		1%		48%
Grant (55)	31%		%		49%
Thurston (233)	32%		3%		50%
Columbia (4)	25%	25%			50%
Stevens (72)	26%	24%			50%
Benton (119)	28%	22%	-		50%
Grays Harbor (122)	29%	19%			52%
Okanogan (54)	22%	24%			54%
Kitsap (182)	22% 24% 23% 19%				58%
Island (55)	42%				58%
Whatcom (150)	23%	, 18%			59%
Skagit (97)	25%	15%			60%
Wahkiakum (8)	38%			63%	
San Juan (18)		11%			1%

Figure 5. WAFOOD5 household food security in the past month, by county (textured bars indicate categories with fewer than 30 responses)

Section 2: Economic Security

LOWER FINANCIAL SECURITY IN FOOD INSECURE HOUSEHOLDS

- When asked how they were doing financially, food insecure households felt less financially secure (Figure 6).
- For example, 61% of food insecure households and 19% of food secure households said they were *just barely getting by*.

 Not getting by Living comfortably 	 Just barely getting by Doing okay Prefer not to answer 			
Overall	12%	42%	28%	17%
Food insecure	21%	61%)	16%
Food secure	19%	42%	36	%

Figure 6. Financial security of WAFOOD5 households, overall and by food security status

HARD-TO-AFFORD EXPENSES: GROCERIES AND HOUSING

- When asked which bills and expenses were hard to afford, WAFOOD5 households most commonly selected groceries and housing (Figure 7).
- Food insecure households had more difficulty affording bills and expenses in the past month than food secure households. For example, 67% of food insecure households and 12% of food secure households reported difficulty affording groceries.
- Urban and rural household had similar difficulties affording bills and expenses. For example, 43% of urban households and 43% of rural households reported difficulty affording groceries.



Figure 7. Bills or expenses that were hard to afford in the past month among WAFOOD5 households, overall and by food security status and urbanicity

BIGGEST FINANCIAL CONCERNS: HOUSING, FOOD, AND HEALTH

- When asked about their single biggest financial concern, respondents most commonly answered rent/mortgage, food, and medical bills/medicine (Figure 8).
- Financial concerns differed by household food security status. For example, 27% of food insecure households and 5% of food secure households rated food as a financial concern.
- Financial concerns also differed by household urbanicity. For example, 34% of urban households and 23% of rural households rated rent/mortgage as their biggest financial concern.



Figure 8. Biggest financial concerns in the past month among WAFOOD5 households, overall and by food security status and urbanicity

MORE FINANCIAL STRESSORS AMONG FOOD INSECURE HOUSEHOLDS

- 66% of food insecure households reported they were *never able to put money into savings* in the past year compared to 19% of food secure households (Figure 9).
- 32% of food insecure households reported *income loss* in the past year compared to 12% of food secure households.
- 6% of food insecure households reported *eviction/foreclosure* in the past year compared 0.4% of food secure households.





PRICE INCREASES FELT BY ALL HOUSEHOLDS

- Almost all WAFOOD5 households felt that prices in their area *increased* in the past month (Figure 10).
- For example, 83% of food insecure households and 72% of food secure households reported that prices increased in the past month.



Figure 10. WAFOOD5 respondent experiences with prices in the past month, overall and by food security status

PRICE INCREASES MORE STRESSFUL AMONG FOOD INSECURE HOUSEHOLDS

- Food insecure households experienced greater financial stress from price increases (Figure 11).
- For example, 69% of food insecure households and 14% of food secure households reported that price increases in the past month were *very stressful*.



Figure 11. WAFOOD5 respondent financial stress related to price increases in the past month, overall and by food security status

WIDESPREAD CONCERN ABOUT FUTURE PRICES

- While most WAFOOD5 households expressed concern about future price increases, food insecure households were almost universally concerned (Figure 12).
- For example, 75% of food insecure households and 38% of food secure households were *very concerned* about price increases in the next 6 months.



Figure 12. WAFOOD5 households' concern about price increases in the next 6 months, overall and by food security status

TO COPE WITH PRICE INCREASES, FOOD INSECURE HOUSEHOLDS RESTRICTED FOOD AMOUNT AND QUALITY

- WAFOOD5 households used many strategies to cope with higher prices. The most common were to shop for lower prices and restrict food quantity and quality (Figure 13).
- Coping strategies differed by food security status. For example, 70% of food insecure households and 28% of food secure households reported they *restrict food quantity and quality*.
- Coping strategies were comparable among urban and rural households. For example, 44% of urban households and 50% of rural households said they *delay major purchases*.



Figure 13. WAFOOD5 respondents' coping strategies for price increases over the past month, overall and by food security status and urbanicity

Section 3: Food Assistance

HIGH USE OF FOOD ASSISTANCE ACROSS WA COUNTIES

- Overall, 55% of WAFOOD5 households used food assistance in the past month (Figure 14).
- In counties with at least 30 survey responses, food assistance use ranged from 37-82%.



FOOD ASSISTANCE USE VARIED BY DEMOGRAPHIC GROUPS

- Age: Food assistance use was highest among 35-44-year-olds, with 68% using food assistance in the past month (Figure 15).
- **Gender:** Food assistance use was highest in the transgender, nonbinary, or another gender category, with 62% using food assistance in the past month.
- Race and ethnicity: Food assistance use varied by race and ethnicity. For example, 73% of Hispanic respondents used food assistance in the past month, compared to 53% of non-Hispanic respondents.
- Veteran Status: 50% of veteran and 56% of nonveteran respondents used food assistance in the past month.



Figure 14. WAFOOD5 household use of any type of food assistance in the past month, overall and by county (textured bars indicate categories with fewer than 30 responses)

Figure 15. WAFOOD5 household use of any type of food assistance in the past month, by respondent demographic characteristics (textured bars indicate categories with fewer than 30 responses)

FOOD ASSISTANCE USE HIGHER AMONG HOUSEHOLDS WITH CHILDREN AND LARGER HOUSEHOLDS

- **Children:** 73% of households with children used food assistance, and 45% of households with no children used food assistance (Figure 16).
- Household size: Food assistance use was highest in households with 4+ people, with 73% using food assistance in the past month.
- Home location: 58% of rural households used food assistance, and 54% of urban households used food assistance.



Figure 16. WAFOOD5 household use of any type of food assistance in the past month, by respondent household characteristics

FOOD ASSISTANCE USE HIGHER AMONG THOSE WITH LESS EDUCATION AND INCOME

- Education: Food assistance use was highest among respondents with a high school education or less, with 78% using food assistance in the past month (Figure 17).
- **Income:** While food assistance use was reported at all household income levels, lower income households more commonly reported food assistance use. 89% of households with incomes under \$15,000 reported using food assistance in the past month.
- Employment status: 61% of unemployed households used food assistance, and 49% of employed households used food assistance.
- Industry/occupation: Respondents in foodbased service (63%) and consumer-facing service occupations (60%) had the highest food assistance use.



Figure 17. WAFOOD5 household use of any type of food assistance, by respondent socioeconomic characteristics

MOST USED PROGRAMS: FOOD BANKS AND SNAP

- The most commonly used food assistance programs in the last month were food banks/pantries and the Supplemental Nutrition Assistance Program (SNAP) (Figure 18a).
- For example, 54% of households received assistance from food banks/pantries in the past month.



Figure 18a. Use of different food assistance programs by WAFOOD5 households in the past month j

FOOD ASSISTANCE USE PATTERNS IN FOOD SECURE AND FOOD INSECURE HOUSEHOLDS

- Use of most food assistance programs was greater among food insecure households compared to food secure households (Figure 18b).
- For example, 50% of food insecure households and 36% of food secure households used SNAP in the past month.



Figure 18b. WAFOOD5 food assistance use in the past month, by household food security status

FOOD ASSISTANCE USE PATTERNS IN URBAN AND RURAL HOUSEHOLDS

- Use of most food assistance programs was similar between urban and rural households (Figure 18c).
- For example, 22% of urban households and 21% of rural households used school meals in the past month.



Figure 18c. WAFOOD5 food assistance use in the past month, by urbanicity (textured bars indicate categories with fewer than 30 responses)

FOOD ASSISTANCE USE DIFFERED IN HOUSEHOLDS WITH AND WITHOUT CHILDREN

- The most common food assistance programs used by households with children were food banks/pantries (used by 50% of households with children) followed by school meals, SNAP, and SUN Bucks / Summer EBT (Figure 18d).
- The most common food assistance programs used by households without children were food bank/pantries (used by 57% of households without children), followed by SNAP, fruit and vegetable incentive programs, and mobile food banks/pantries.



Figure 18d. WAFOOD5 food assistance use in the past month among households with and without children

FOOD ASSISTANCE BARRIERS DIFFERED FOR FOOD SECURE AND FOOD INSECURE HOUSEHOLDS

- Top barriers to using or applying for more food assistance were *earning too much to qualify* and respondents already *using all that they were eligible for* (Figure 19).
- Barriers differed by food security status. For example, 29% of food insecure respondents and 9% of food secure respondents reported they were using all they were currently eligible for.
- Barriers did not differ greatly among urban and rural households.





FOOD ASSISTANCE USE: FOOD BANKS AND PANTRIES, MOBILE, AND DELIVERY PROGRAMS This section focuses on participant experiences at food banks and pantries, mobile, and delivery programs.

HOUSEHOLDS EAT MOST OF THE FOOD THEY RECEIVE FROM THESE PROGRAMS

- The majority of households reported being able to eat all or most of the food they received from these programs (Figure 20).
- Only a few households (0.6-2%) were not able to use any of the food they received from these programs.

All/most About half Less the	nan half None Pret	fer not to a	answer
Food banks/pantries (n=1,632)	63%	24%	10%
Mobile programs (n=490)	65%	20%	13%
Delivery programs (n=333)	56%	25%	16%

Figure 20. WAFOOD5 households: how much food from food assistance programs households were able to eat (instead of discarding for various reasons) in the past month (n=5,528)

FOOD FROM THESE PROGRAMS RARELY LASTED MORE THAN A WEEK

 Only 8-9% of households reported that food from these programs lasted more than a week (Figure 21).

More than a week A week 3-5 days 1-2 days Prefer not to answer

Food banks/pantries (n=1,632)	9%	17%	43%	30%
Mobile programs (n=490)	8%	15%	38%	38%
Delivery programs (n=333)	8%	15%	38%	39%

Figure 21. WAFOOD5 households: average amount of time food from assistance programs lasted (n=5,528)

FAMILIARITY AND PERCEIVED HEALTHFULNESS OF FOOD FROM THESE PROGRAMS VARIED

- There was variation in whether respondents perceived the food they received from these programs as familiar or good for their health and well-being (Figure 22).
- For example, while 22% reported that food from food bank/pantries was *often* familiar, 22% reported it was *never* familiar.



Figure 22. WAFOOD5 respondent perceptions of food received from assistance programs in the past month

Section 4: Food Affordability, Diet Quality, and Health

LESS SPENDING ON GROCERIES AND EATING OUT AMONG FOOD INSECURE HOUSEHOLDS AT ALL INCOMES

- Overall, households spent more on groceries (average of \$263 per person per month) than eating out (average of \$79 per person per month) (Figure 23).
- While food insecure households spent slightly less on groceries compared to food secure households at all income levels, grocery spending was similar by food security status and income level.

Food at home (groceries) Food away from home (eating out)



Figure 23. Monthly per person household food expenditures reported by WAFOOD5 households, overall and by income level and household food security status

NUTRIENT-RICH, PERISHABLE FOODS HARDER TO AFFORD

- Households reported protein-rich foods and perishable foods as amongst the most difficult-toafford, such as red meat, chicken, fresh fruits and vegetables, seafood, and eggs (Figure 24).
- For example, 58% of households reported difficulty affording red meat and 38% of households reported difficulty affording fresh fruit.



Figure 24. Food items reported as difficult-to-afford in the past 30 days by WAFOOD5 households k

PROTEIN-RICH AND FRESH FOODS ESPECIALLY HARD TO AFFORD FOR FOOD INSECURE HOUSEHOLDS

- Food affordability was a bigger issue for food insecure households than food secure households, with protein-rich, fresh foods reported as most difficult-to-afford (Figure 25).
- For example, in food insecure households, 83% reported difficulty affording red meat; 57% affording fresh fruit; and 49% affording eggs.



Figure 25. Food items reported as difficult-to-afford in the past 30 days by WAFOOD5 households, by household food security status

LESS VEGETABLE, PROTEIN, AND FRUIT CONSUMPTION AMONG FOOD INSECURE HOUSEHOLDS

- Even though households overall reported that daily consumption of vegetables and fruit was greater than sugar-sweetened beverages and desserts, almost half reported eating vegetables less than once a day and more than half reported eating fruit less than once a day (Figure 26).
- Vegetables, proteins, and fruit were also eaten • fewer times per day in food insecure households compared to food secure households.
- For example, while 72% of food secure • households reported eating vegetables one or more times per day, only 44% of food insecure households reported eating vegetables one or more times per day.

■2+ ■1 to <2 = 0.5 to <1 = <0.5 = Prefer not to answer</p>

Overall			
Vegetables	25%	3	1%
Fruit	22%	18%	16%
Meat, poultry, seafood, eggs	18%	28%	
Sugar-sweetened beverages	<mark>7%</mark> 9% <mark>6%</mark>	6	
Cake, cookies, sweets	<mark>7%</mark> 16%	15%	
Food insecure			
Vegetables	16%	28%	
Fruit	14% 1	5% <mark>14</mark> 9	%
Meat, poultry, seafood, eggs	11% 2	23%	27%
Sugar-sweetened beverages	<mark>9%</mark> 11%	7%	
Cake, cookies, sweets	11% 1	3%	
Food secure			
Vegetables	36%	6	3
Fruit	31%	2	22%
Meat, poultry, seafood, eggs	25%		33%
Sugar-sweetened beverages	7%		
Cake, cookies, sweets	<mark>8%</mark> 219	% 18	%

s	25%	31	1%	23%		20%
it	22%	18%	16%		41%	
s	18%	28%	2	6%	27	%
s	<mark>7%</mark> 9% <mark>6%</mark>		-	76%		
s	<mark>7%</mark> 16%	15%		61%)	
е						
s	16%	28%	2	7%	28	%
it	14% 15	% 14%	þ	54	%	
s	11% 23	5%	27%		37%	
s	<mark>9%</mark> 11% <mark>7</mark> '	%		71%		
s	11% <mark>13</mark>	%		68%		
Ð						
s	36%		36%	6	17%	10%
it	31%	2	2%	18%	26	%
s	25%	3	3%	24	%	16%
s	7%		8	3%		
s	<mark>8%</mark> 21%	189	%	52	2%	

Figure 26. Reported typical food consumption (times per day), by food category, in the past 30 days among WAFOOD5 households, overall and by household food security status

SUBOPTIMAL HEALTH AND DIET **REPORTED BY THE MAJORITY** OF RESPONDENTS IN FOOD **INSECURE HOUSEHOLDS**

- When asked to report on their overall health and diet, responses differed by food security status (Figure 27).
- For example, 54% of food insecure respondents and 21% of food secure respondents rated their overall health as poor or fair.

■Poor ■ Fair ■ Good ■ Very Good ■ Excellent ■ Prefer not to answer Health



Figure 27. Health and diet quality of WAFOOD5 respondents, overall and by food security status

ANXIETY, DEPRESSION, AND STRESS COMMON IN FOOD **INSECURE HOUSEHOLDS**

- Feelings of anxiety, depression, and stress were more commonly reported in food insecure households compared to food secure households (Figure 28).
- For example, 84% of food insecure respondents and 46% of food secure respondents reported high stress.



Figure 28. Mental health of WAFOOD5 respondents, overall and by food security status ¹

Section 5: Wave Comparisons and Sample Information

HOW DOES WAFOOD5 COMPARE TO PRIOR WAVES?

 Across five samples of Washington State residents surveyed between June 2020 - October 2024 (WAFOOD 1-5), between 27% and 55% of surveyed households experienced food insecurity (Figure 29).



W1: Jun-Jul '20 W2: Dec '20-Jan '21 W3: Jul-Aug '21 W4: Dec '22-Jan '23 W5: Aug-Oct '24

Figure 29. Percentage of WAFOOD households classified as food secure or food insecure in each survey wave

AMONG RESPONDENTS WITH 3+ WAVES OF DATA, FOOD INSECURITY REMAINS HIGH

- Among the 1,092 respondents who participated in at least three of WAFOOD Waves 1-5, 34% experienced food insecurity during WAFOOD5 (Figure 30).
- Among the 1,092 respondents who participated in at least three of WAFOOD Waves 1-5, 46% experienced food insecurity during at least one survey wave (not shown on the graph).



W1: Jun-Jul 20 W2: Dec 20-Jan 21 W3: Jul-Aug 21 W4: Dec 22-Jan 23 W5: Aug-Oct 24 **Figure 30.** Percentage of households classified as food insecure at each survey wave among a group of 1,092 respondents who participated in at least three of five WAFOOD Waves

How to interpret Figures 29 and 30

- Figure 29 shows **repeated cross-sectional data** from respondents of WAFOOD Waves 1-5, with data from the full sample of respondents in each wave. Though some respondents participated in multiple survey waves, the samples were not identical across waves. In other words, each WAFOOD survey wave included a different pool of respondents. Because the majority of respondents in each wave were new, we caution against drawing conclusions about changes over time based on this figure.
- Figure 30 shows **longitudinal data** from the cohort of 1,092 respondents who participated in at least three of WAFOOD Waves 1-5. Because this is longitudinal data, we can draw conclusions about changes over time *among these 1,092 respondents*.

WAFOOD5 STATE COVERAGE

• The WAFOOD5 survey included 5,528 unique respondents from *all* counties in WA State (Figure 31).



= < 50 = 50 - 100 = 100 - 300 = 300 - 500 = ≥ 500Figure 31. Number of WAFOOD5 responses by county

Respondent Characteristics

Compared to Washington State overall, the WAFOOD5 sample had more 35-65+ year-olds, women, respondents with some college education, households with annual incomes <\$75,000, and households with children.

Table 1. WAFOOD5 survey sample demographics co	ompared to Washington State	
Characteristic	WAFOOD5	Washington State ^a
Age (years)		
18 to 24	2.7%	8.4%
25 to 34	11.8%	15.1%
35 to 44	20.5%	14.6%
45 to 54	19.5%	11.9%
55 to 64	19.4%	11.8%
65+	25.9%	17.1%
Gender		
Woman	79.3%	49.6%
Man	15.6%	50.4%
Transgender, nonbinary, another	3.9%	
Race ^{b, c}		
White	76.1%	65.2%
Black	15.6%	4.0%
American Indian/Alaskan Native	3.9%	1.2%
Asian	1.3%	10.0%
Pacific Islander	0.4%	0.7%
Middle Eastern/North African	0.2%	
Multi-racial	7.2%	13.1%
Some other race	1.5%	8.8%
Hispanic ethnicity	8.5%	14.6%
Education ^d		
High school or less	14.7%	29.2%
Some college	42.5%	20.5%
College graduate	26.4%	34.1%
Graduate degree	15.5%	16.1%
Income ^e		
Less than \$10,000	6.6%	3.8%
\$10,000 - <\$15,000	8.3%	2.7%
\$15,000 - <\$25,000	10.2%	4.9%
\$25,000 - <\$35,000	12.2%	5.3%
\$35,000 - <\$50,000	14.1%	8.3%
\$50,000 - <\$75,000	16.7%	14.6%
\$75,000 - <\$100,000	10.1%	12.6%
\$100,000 - <\$200,000	12.9%	19.2%
\$200,000 or more	2.9%	17.2%
Marital status		
Single, divorced, or widowed	45.3%	42.8%
Member of unmarried couple	9.8%	8.4%
Married	42.8%	48.7%
Households with children	37.4%	27.8%
Rurality ^f	18.0%	35.0%

^a US Census Bureau 2023 ACS 5-year estimates.

^b Middle Eastern/North African category was not yet available in 2023 ACS estimates, so there is no corresponding state data to show.

^c "Some other race" includes "other" and "I do not know" responses, and thus may not be directly comparable to WA state.

^d Educational attainment, marital status, and households with children category percentages for WA are based on author calculations using US Census Bureau 2023 American Community Survey (ACS) 1-year estimates.

^eEstimates based on population aged at least 25 years old.

^f Rurality percentages for WA are based on the most recent (2010) Rural-Urban Community Area Codes developed by the USDA Economic Research Service from ZIP codes and area population density.

How to Interpret These Findings

The WAFOOD surveys *intentionally oversample households with lower incomes and those using food assistance*, in order to provide deeper insights on food insecurity throughout the state. All survey waves have used a mix of convenience and recontact sampling. The research team, together with a diverse network of partner organizations across WA State, recruited new respondents via social media, email, and text. Individuals who completed prior surveys and agreed to participate in newer waves were contacted directly via email. All five WAFOOD surveys were fielded online.

The limitations of convenience sampling and an on the surveys mean that some dropped with a some dropped waves in the some dropped waves in the some dropped waves in the wave

Technical Notes

- a. In this brief, <u>food security</u> is always presented in aggregate and refers to *high food security* and *marginal food security*. <u>Food insecurity</u>, 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 foodaccess 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.
- b. "Transgender, nonbinary, another" gender includes otherwise gender non-conforming identities and selfdescribed gender identities.
- c. "Some other race" includes "other" and "I do not know" responses.
- d. Only respondents who identified as American Indian/Alaskan Native were permitted to provide tribal membership status.
- e. The textured bars indicate categories with fewer than 30 survey responses. Because of the small sample size, these estimates may be less reliable. In figures where at least one category has fewer than 30 survey responses, sample sizes are shown in parentheses.
- f. Urban and rural definitions were based on ZIP codes and area population density using the most current definitions from the USDA Economic Research Service.
- g. "Not in labor force" includes homemakers, students, retirees, and respondents who are unable to work.
- h. "Consumer-facing services" includes: 1) hospitality, hotels, real estate, and rental, 2) installation, repair, and construction, 3) personal care and services, 4) retail sales and related occupations, and 5) arts, design, entertainment, and sports. "Food-based services" includes: 1) farming, agriculture, fishing, and livestock, 2) transportation and food delivery, 3) food sales (wholesale or retail), and 4) food preparation and services.
- i. "Other" housing status includes respondents who own mobile homes but pay to rent land, own boats but pay for moorage, live in transitional housing, are unsheltered or unhoused, and who live in a house paid for by family, friends, or an employer.
- j. "Mobile food banks/pantries" are distinct from "food bank/program delivery". Food delivery programs deliver food directly to recipients whereas mobile programs change locations, but service more general areas.
- K. "Vegetables" includes the total consumption of "other vegetables" and "salad," from the Behavioral Risk Factor Surveillance System (BRFSS).
- For this most recent wave (WAFOOD5) the WAFOOD survey measured stress using the validated 4-item Perceived Stress Scale instead of a generalized question about stress. As such, results regarding stress may not be directly comparable to prior waves of data.

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Further Information

For more information and prior WAFOOD briefs:

- The WAFOOD project page
 <u>https://foodsystems.uw.edu/cphn/wafood/</u>
- The Washington State Food System Assessment
 <u>https://foodsystems.uw.edu/cphn_project/washington-</u>
 <u>state-food-systems-assessment/</u>

About the WAFOOD Team

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