

Foodbank Hunger Report 2022

Methodology



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Methodology

Overview of the approach

The *Foodbank Hunger Report 2022* research comprises an online survey of n=4,024 Australians aged 18 years or above. They are nationally representative by age, gender, state and location (capital city/ rest of state), recruited via a research-only online panel. The average survey length for food secure households was 5.3 minutes, and the average length for food insecure households – as identified during the survey – was 14 minutes.

Quotas were in place with strict demographic targets (age, gender, capital city/ rest of state) within each of the major states based on the ABS Estimated Resident Population (ERP) projections as of Q2 2021. The representative demographic quotas within each major state are outlined in Table 2 below:

Table 1. Summary of interlocking state x demographic quotas by age, gender, and location (capital city/ rest of state).

Quota		New South Wales	Victoria	Queensland	South Australia	Western Australia	Tas/NT/ACT (avg. AU proportions)	Australia
Gender (allow flexibility for non-binary)	Male	49%	49%	49%	49%	49%	49%	49%
	Female	51%	51%	51%	51%	51%	51%	51%
Age	18-24	11%	11%	11%	11%	11%	11%	11%
	25-34	19%	20%	18%	17%	18%	19%	19%
	35-44	17%	18%	17%	16%	18%	18%	18%
	45-54	16%	16%	17%	16%	17%	16%	16%
	55-64	15%	14%	15%	16%	15%	15%	15%
	65-74	12%	11%	12%	14%	12%	12%	12%
	75+	10%	9%	9%	11%	9%	10%	10%
Location	Cap city	65%	77%	49%	78%	80%	68%	68%
	Rest of state	35%	23%	51%	22%	20%	32%	32%
Total target sample size		1050	850	700	600	600	200	4000

In addition, as larger sample sizes increase statistical power and, therefore, the opportunity to identify differences between subgroups, the state quotas were stratified to ensure all major states (NSW, VIC, QLD, SA, WA) have a robust sample size of minimum n=600 or above (meaning that the minimal margin of error for the results within each major state would be no more than +/- 4%).

Table 3 below provides a summary of the stratified state quotas applied, and the final achieved sample sizes from each state. Note that as will be detailed in the subsequent section on weighting in Appendix A, the stratified state quotas were then weighted back to represent the relative population proportions between states for analysis and reporting.

Table 2. Stratified minimum quotas vs. final achieved sample by states

State	Minimum quota by state (sample count)	Final achieved sample by state (sample count)	Final achieved sample by state (sample proportion)	Final achieved sample by state (weighted proportion)	Final achieved fall-out of food insecure households by proportion

					state (sample count)
New South Wales	1050	1053	26%	32%	339
Victoria	850	853	21%	27%	273
Queensland	700	702	18%	20%	227
South Australia	600	603	15%	7%	175
Western Australia	600	604	15%	10%	170
Tasmania/ACT/ North Territory	200	209	5%	5%	64
Total	4000	4024	100%	100%	1248

Survey design and questionnaire development

The survey was designed and developed in consultation with Foodbank.

As part of the consultation process, Foodbank instructed that the introduction and literal execution of the HFSSM module would form the core of the Foodbank Hunger Report 2022 survey. This has been implemented and reflected in the survey design based on thorough review of the official survey instrument and the guide to survey execution and analysis by USDA Economic Research Service (ERS)¹. Table 4 below provides a summary of definition for each of the food security categories as per ERS instructions.

Table 3. Definition and terminology used in describing household food security in this report

	Level of impact	Label as per HFSSM	Definition
Food Secure	Highly food secure	High food security	No reported indications of food-access problems or limitations.
	Marginally food secure	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.
Food Insecure	Moderately food insecure	Low food security	Reports of reduced quality, variety or desirability of diet. Little or no indication of reduced food intake
	Severely food insecure	Very low food security	Reports of multiple indications of disrupted eating patterns and reduced food intake.

Table 5 below is a summary of all HFSSM indicators used to measure household level of food security. Each indicator, if receiving an affirmative response from the survey respondent, will be coded with a score of one for the relevant respondent. Depending on their levels of household food

¹ The full USDA survey instrument and the guide to implementation can be found available on the website of USDA ERS <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/survey-tools/>

security, and whether there are children in the households, the food insecure households can receive a raw score of minimum three to maximum eighteen for those living with children, and a raw score of minimum three to maximum ten for those without.

Table 4. HFSSM indicators of household food security

Referenced household members	Indicators	Definition of affirmative responses for each indicator
Anyone in the household	Agree with the statement that they “worried whether my/our food would run out before I/we got money to buy more”	Sometimes true/ often true
	Agree with the statement that “the food that I/we bought just didn’t last, and I/we didn’t have money to get more”	Sometimes true/ often true
	Agree with the statement that “I/we couldn’t afford to eat balanced meals”	Sometimes true/ often true
Any adult(s) in the household	The respondent, or any other adult in their household, have had experience ever cutting the size of meals or skip meals because there wasn’t enough money for food in the last 12 months	Self-reported “yes”
	The frequency of experience cutting the size of meals/ skipping meals because there wasn’t enough money for those who did undergo such situation in the last 12 months	Experience happened more often than ‘only 1 or 2 months’
The adult respondent themselves	Experience in the last 12 months of ever eating less than they felt they should because there wasn’t enough money for food	Self-reported “yes”
	Experience in the last 12 months of ever being hungry but did not eat because there wasn’t enough money for food	Self-reported “yes”
	Experience in the last 12 months of ever losing weight because there wasn’t enough money for food	Self-reported “yes”
Any adult(s) in the household	The respondent, or any other adult in their household, have had experience ever not eating for a whole day because there wasn’t enough money for food	Self-reported “yes”
	The frequency of experience not eating for a whole day because there wasn’t enough money for food, for those who did undergo such situation in the last 12 months	Experience happened more often than ‘only 1 or 2 months’
Any children in the household (for households with children)	Agree with the statement that they “relied on only a few kinds of low-cost food to feed the child/ren because of running out of money to buy food”	Sometimes true/ often true
	Agree with the statement that they “couldn’t feed the child/ren a balanced meal, because I/we couldn’t afford that”	Sometimes true/ often true
	Agree with the statement that their child/ren “were not eating enough because I/we just couldn’t afford enough food”	Sometimes true/ often true
	Experience of the respondent ever cutting the size of their child/ren’s meals because there wasn’t enough money for food in the last 12 months	Self-reported “yes”
	Experience of the child/ren ever skipping meals because there wasn’t enough money for food in the last 12 months	Self-reported “yes”
	The frequency of the child/ren’s experience ever skipping meals because there wasn’t enough money for food for those who did in the last 12 months	Experience happened more often than ‘only 1 or 2 months’
	Experience of the child/ren ever being hungry in the last 12 months because the respondent “just couldn’t afford more food”	Self-reported “yes”

	Experience of the child/ren ever not eating for a whole day because there wasn't enough money for food in the last 12 months	Self-reported "yes"
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To gain insights into the lived experience of food insecurity, and to provide additional context for the interpretation of the HFSSM results, the questionnaire was further developed based on review and assessment of the past survey instruments for the Foodbank Hunger Report research series, incorporating profiling measures consistent with historical years for subgroup analysis, while optimising the existing Foodbank Hunger Report survey questions to reflect the wider socioeconomic shifts Australians lived and witnessed in 2022.

In particular, during the development of the Foodbank Hunger Report 2022 questionnaire, cognitive testing was conducted to assess the effectiveness of the survey instrument in accurately and sensitively eliciting the required information from the target audience. Overall, six cognitive interviews were conducted during the phase of questionnaire development. Each interview comprised an in-depth discussion of 45 minutes in length over telephone with current food relief support recipients from South Australia (as referred to by Foodbank SA). In so doing, the survey design has also ensured that households potentially more vulnerable to food insecurity were involved in the design process.

Once the questionnaire was developed and programmed on the online survey platform, a further pilot phase surveying n=30 Australians from the general population was conducted, to provide reassurance that the survey was appropriate to the general population as well as the potentially more vulnerable audience living with food insecurity over the last twelve months.

Fieldwork

The survey was piloted from 11th July 2022 to 13th July 2022. Main fieldwork was conducted between 14th July 2022 and 28th July 2022.

All fieldwork was conducted and managed by Dynata, who recruited respondents and hosted the survey via its secure online platform.

Dynata (previously Research Now/ SSI) is a data and insights organisation who have been a leading provider of online panel services for global organisations conducting research for more than 20 years, with a reach that encompasses 60+ million people globally. It is also Australia's largest online panel comprising over 400,000 members.

For Foodbank, it was important that "... conditional on the quota variables, an individual response is not dependent on their food security status"². One concern could be that people who are more food insecure are not on online panels. However, when looking at the distribution of Dynata panelists across some of the key measures used for the Hunger Map which may indicate food insecurity, we found that there is a broad distribution and good attribution within the lower socio-economic groups.

² Progress in the Spatial Modelling of Food Insecurity in Australia: A Foodbank Australia White Paper, UTS Institute of Sustainable Futures, 15 November 2021

Weighting

Creation of person weight by state, age, sex and location

To ensure statistical robustness for national as well as state-based analysis, we have implemented stratified quotas by state (so within the n=4,000 total sample, all major states except NT, TAS and ACT have a sample size of at least 600). Weighting is thus required to account for stratified sampling, matching the weighted sample to the representative national population profile by state, age, sex and location.

Weighting information (age, sex, state, cap city/rest of state) were obtained from all 4,024 survey respondents, representing general Australian population aged 18 years and over.

Weighting cells were defined by State x GCCSA (cap city/ rest of state) x Sex x Age (18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+). The variable used to define the weighting cells was S1 self-reported sex/ gender identity, S2 age and S3 postcode as set out below:

S1. Are you...? **SR**

1	Male
2	Female
3	Other (e.g. intersex, non-binary sex)

S2. How old are you? **OE NUM, Allow 1-99**

S3. Where do you live? Please type in the postcode of the suburb you currently live in.

OE NUM, ASK ALL

The distribution of the participant sample across these cells is shown in the table below:

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tas/NT/ACT	Total AU 18+
Male	48%	49%	48%	47%	46%	45%	48%
Female	52%	51%	52%	53%	54%	55%	52%
18-24	10%	11%	11%	9%	11%	8%	10%
25-34	19%	20%	18%	17%	19%	19%	19%
35-44	17%	18%	17%	16%	19%	17%	17%
45-54	15%	16%	17%	15%	12%	16%	15%
55-64	15%	14%	16%	17%	16%	16%	15%
65-74	13%	11%	13%	15%	14%	14%	13%
75+	10%	9%	9%	12%	11%	10%	10%
Cap city	64%	77%	50%	81%	79%	65%	69%
Rest of state	36%	23%	50%	19%	21%	35%	31%
Total	26%	21%	17%	15%	15%	5%	100%

ERP population proportions for weighting cells

The ABS.Stat module (available from <http://stat.data.abs.gov.au>) was used to obtain projections of the Estimated Resident Population (ERP) classified by Age by Sex by the Greater Capital City Statistical Areas for reference period 2020. These population projections, which are based on 2016 census, were published by ABS in August 2021.

The creation of the person weight is to redistribute the proportion of the above participant sample to the representative national profile as outlined below:

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tas/NT/ACT	Total AU 18+
Male	49%	49%	49%	49%	49%	49%	49%
Female	51%	51%	51%	51%	51%	51%	51%
18-24	11%	11%	11%	11%	11%	11%	11%
25-34	19%	20%	18%	17%	18%	19%	19%
35-44	17%	18%	17%	16%	18%	18%	18%
45-54	16%	16%	17%	16%	17%	16%	16%
55-64	15%	14%	15%	16%	15%	15%	15%
65-74	12%	11%	12%	14%	12%	12%	12%
75+	10%	9%	9%	11%	9%	10%	10%
Cap city	65%	77%	49%	78%	80%	68%	68%
Rest of state	35%	23%	51%	22%	20%	32%	32%
Total	32%	26%	20%	7%	10%	5%	100%

Creation of household weight for household and child referenced data

Household is the major unit of analysis for the Foodbank Hunger Report 2022. Once the participant weight at personal level is created, we will further create an additional weight that takes household size and child count into account.

The household weight for a particular household is the inverse of its household selection probability multiplied by representative proportion of the type of household per state in general Australian population (based on ERP Series II projections for year 2022).

The selection probability of a particular household is the equivalent of the number of adults in the household. This was collected in the survey as the computed S5a No. of adults at home, through the combination of two questions S4 HH size and S5 No. of child/ren at home.

HH size

*S4. Including yourself and any children, how many people currently live in your household? **OE NUM, Allow 1-30, ASK ALL***

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Number of child/ren at home

ASK IF MORE THAN 1 PERSON AT HOME S4>1

S5. And how many child/ren **under 18 years**, if any, do you currently have at home? Please type 0 if no one in your household is aged under 18 years. **OE NUM, Allow 0-30 and cannot exceed the answer provided in S4**

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Programmer note: compute hidden variable

S5a. No. of adults at home. NUMERIC S5A=S4-S5

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The classification of household types was collected in the survey through a detailed living arrangement question S7, which will be re-aggregate during weighting to match classifications available in the ERP projections as below:

S7. Which of the following best describes your current living arrangements? **SR, ASK ALL**

		Re-classify to ERP categorisation
1	Living alone	Lone person households
2	Living in a group household (e.g. with flatmates)	Group households
3	Living with parents/ other relatives	Family households
4	Couple family with no children at home	Family households
5	Couple family with child/ren of any age at home	Family households
6	One-parent family with child/ren of any age at home	Family households
7	Resident of a non-private dwelling (e.g. staff quarters, nursing home/ aged care home)	Lone person households
10	Others (please specify)	Verbatims to be reviewed and back-coded to relevant categories

ERP projection of household types by state for 2022:

	Australia	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
Family households	70%	71%	70%	71%	67%	72%	65%	73%	68%
Group households	5%	5%	5%	5%	4%	4%	3%	6%	5%
Lone person households	25%	24%	25%	24%	29%	24%	31%	21%	27%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

So for example, for a participant from NSW, who was responding for a household of 6 people, of whom 4 are children (i.e. 2 adults at home), and identified themselves as a 'couple family with child/ren of any age at home', the weight for this particular household would be $\frac{1}{2} \times 71\% = 0.35473856$

Note that while the HFSSM module also measures the level of food security of children at home, the wording and focus of the questions are on food security of 'any children at home' which can range from at least one to all of the children at home. So for the child-referenced data, our unit of analysis remains at weighted household level ('household with children') and will not be able to provide relevant estimates amongst total number of children.