**JOURNEYS HOME
WAVE 1 TECHNICAL REPORT
JUNE 2012**

Sample, Fieldwork, Response and Weighting

Report prepared for the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs

Contents

1   Introduction

Journeys Home: A Longitudinal Study of Factors Affecting Housing Stability is a longitudinal survey tracking a national sample of individuals exposed to high levels of housing insecurity. It was originally conceived as a tool for enabling research that would improve understanding of the pathways into and out of homelessness in Australia and the consequences of homelessness for long-term outcomes. Journeys Home is funded by the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), and run by the Melbourne Institute of Applied Economic and Social Research at The University of Melbourne. Roy Morgan Research (RMR) was sub-contracted to undertake the fieldwork.

The fieldwork for wave 1 was conducted over a 12 week-period from 1 September 2011. There will be a further three waves conducted approximately six months apart. All wave 1 respondents will be followed through all subsequent waves unless consent is withdrawn. The survey collects information on individuals' personal characteristics, housing and living arrangements, employment, financial situation, support services and networks, health and well-being, contact with the justice system and exposure to violence. Retrospective information on experience of homelessness and family history while growing up are also collected. In addition, in the income section, a question seeking the consent of respondents to link their survey responses to their Centrelink records is included. Obtaining consent both obviates the need to ask respondents any questions about their Centrelink payments and provides highly accurate information about their benefits history.

This technical report documents the design of Journeys Home, fieldwork administration, wave 1 fieldwork outcomes, and weighting. The arrangement of the rest of the reports is as follows:

- Section 2, Sample Design: documents the definition of population, sampling framework and the evolution of the sample.[1]

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[1] This section includes only the final sample design. For detailed discussion on modelling the vulnerability of homelessness and sampling methodology see Journeys Home Project Report no. 1, 'Designing the Longitudinal Study of Australians Vulnerable to Homelessness'.

- Section 3, Survey Administration: describes important fieldwork protocol, interview length and major difficulties confronted during wave 1 fieldwork and interviewers' feedback.
- Section 4, Response Rate and Sample Characteristics: summarises wave 1 survey outcomes including response rate and description of sample characteristics.
- Section 5, Weighting: presents the method used to generate design weight, response weight and population weight.

2   Sample Design

2.1   *Target Population*

The sample was drawn from the Research Evaluation Database (RED) developed by the Department of Education, Employment and Workplace Relations (DEEWR), which in turn contains records for all Centrelink income support customers since 1st July 2002.[2] This has the distinct advantage that it provides much wider coverage of the homeless population within Australia given the strong likelihood that the large majority of homeless persons will be in receipt of a Centrelink income support (IS) payment.[3]

The main problem with this approach is that a very large number of Australians are in receipt of Centrelink payments at any point in time (4.75 million as at 27 May 2011), most of whom are not currently homeless nor are at any great risk of experiencing homelessness in the near future. Since 1st January 2010, however, local Centrelink office staff have been required to flag in their database those customers they determine to be either 'homeless' or 'at risk of homelessness', as defined by their Homelessness Indicator service delivery tool. This enables a sample of Centrelink customers to be drawn that we expect will consist of people who have had recent experiences of homelessness. It also provides the opportunity to draw a sub-sample, using statistical techniques, of persons that have not been flagged as 'homeless' but

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[2] While the RED includes information on all Centrelink customers, it does not include all of the details that are available within the Centrelink customer database.

[3] Unfortunately there are no available data indicating how close to complete the coverage is. We do know, however, that among users of government-funded specialist homelessness services (who represent 27% of the homeless population in the revised ABS homeless count [ABS 2011]) somewhere between 83 and 85 per cent relied on government payment as their *main* source of income in 2009/10 (Australian Institute of Health and Welfare 2011).

nevertheless have characteristics similar to those that have. These persons might be thought of as a group of people who are, at least in a statistical sense, vulnerable to homelessness. It also will likely include some homeless persons who have not yet been flagged as such by Centrelink staff.

Critical are the definitions of homelessness used by Centrelink. These are set out in Centrelink's *Homelessness Awareness Training Manual* and read as follows:

> A person who is 'homeless' is one that:
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> - is without conventional accommodation (e.g., sleeping rough, squatting, or living in a car); or
>
> - lives in, or moves frequently between, temporary accommodation arrangements (e.g., with friends or extended family, emergency accommodation, or youth refuges).
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> A person who is 'at risk' of homelessness is one that:
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> - lives medium to long term in a boarding house, caravan park or hotel, where accommodation is not covered by a lease;
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> - lives in accommodation which falls below the general community standards which surround health and wellbeing, such as access to personal amenities, security against threat, privacy and autonomy;
>
> - is facing eviction;
>
> - lives in accommodation not of an appropriate standard which may be detrimental to their physical and mental well-being, or where they have no sense of belonging or connection (e.g., Indigenous Australians living in crowded conditions or disconnected from their land, family / kin, spiritual and cultural beliefs and practices).

Taken at face value, the combination of these two definitions give a population of 'homeless' people that roughly accords with the cultural definition of homelessness put forward by Chamberlain and Mackenzie (1992) and used by the Australian Bureau of Statistics to enumerate the homeless population in the 1996, 2001 and 2006 Censuses.

In summary, we opted for a sample design involving three sub-samples:

1. people flagged by Centrelink as 'homeless';

2. people flagged by Centrelink as 'at risk' of homelessness; and
3. people identified by the research team as 'vulnerable' to homelessness.

The population scope was initially established as all Centrelink customers aged 15 years or older in receipt of any income support payments at any time during the 28-day period prior to 27 May 2011. The 28-day window permits people who have recently moved off income support, be it permanently or temporarily (e.g., due to payment suspensions), to be included in the population. This definition gives a total of 27,017 persons flagged as 'homeless' and 15,319 persons flagged as 'at risk' of homelessness.

Identification of the population of people who are vulnerable to homelessness is based on the probability of an individual being homeless or at risk of being homeless, and involved the estimation of a logistic regression equation predicting the probability of being flagged as homeless or at risk of homelessness. The choice of predictor variables for inclusion in the logistic regression model was largely driven by what was made available within the administrative data (i.e., the RED). The list is extensive, but included controls for:

- key demographic characteristics (such as gender, age, whether an Indigenous Australian, country of birth, marital status, number of children and age of youngest child);
- the presence of medical conditions by type (with psychological and psychiatric problems specifically identified);
- housing tenure type (i.e., whether a home owner, renter or living rent free, and among renters whether renting from private or public landlords);
- residential mobility (as represented by the number of moves in the past year);
- labour and business earnings;
- income support arrangements and history (including current benefit type, the proportion of time on income support, both since age 16 and in the past year, number of suspensions by Centrelink in the past year, whether ever been subject to an income management plan, whether ever been in receipt of the homeless rate of Youth Allowance, ABSTUDY or Disability Support Pension;
- the 'regional' homeless rate (based on Census data);
- whether an ex-offender (that is, has previously spent time in a prison); and a range of other indicators used by Centrelink to identify 'vulnerability' (such as drug or alcohol dependence, lack of literacy and language skills, serving an eight week non-payment

period in the past year, and experiencing a recent traumatic relationship breakdown). See Table A1 in the appendix for the full specification.

We then defined the 'vulnerable to homelessness' population to be Centrelink customers who had a predicted probability in the top 2 per cent of all income support recipients who were not already flagged (as either 'homeless' or 'at risk' of homelessness) by Centrelink. This resulted in a group numbering 95,755 persons. Choice of a 2 per cent cut-off point was largely arbitrary and reflected value judgements made by the research team (and in consultation with FaHCSIA) about what the size of this population should be. The average characteristics of the top 2 per cent are also very similar to the homeless and at risk of homelessness groups combined.

In summary, the population we sampled from comprises three sub-groups: (i) Centrelink customers flagged as 'homeless'; (ii) Centrelink customers flagged as 'at risk of homelessness'; and (iii) other Centrelink customers who we identify as being vulnerable to homelessness. Together, these three sub-groups number 138,091 persons.

2.2   Survey Population and Clustering

Cost considerations required further restrictions in the scope of the population. In particular, the high cost of face-to-face interviewing meant that the sample had to be clustered, with only those clusters where homelessness was sufficiently common to ensure a viable interviewing workload retained for selection.

Clusters were formed based on the geo-coded address and postcode information available in the RED. For practical reasons, the clusters were selected three months prior to the individuals being selected. This was so that Roy Morgan Research (RMR) had sufficient time to recruit interviewers in areas where they did not already have a suitable workforce for this particular population. As such, the clusters were selected using the RED data extracted on 28 January 2011, and the individuals were selected within those areas using the data extracted on the 27 May 2011 extract.

The key requirement in forming the clusters was that they should not be larger than 10km in radius in the major cities and 20km in regional and rural centres. This resulted in the survey population being divided into 739 clusters. To be eligible for inclusion in the final sample, a cluster in a major city had to have at least 45 flagged persons (that is, persons flagged as either 'homeless' or 'at risk of homelessness') and a cluster in a regional or rural centre had

to have at least 65 flagged persons. Only 200 of the 739 original clusters were thus eligible for inclusion in the final sample. Mapping the population (based on the May 2011 data) back to the 200 eligible clusters, 110,616 persons (80.1%) were found to be in the 200 eligible clusters (22,640 persons flagged as 'homeless', 13,136 persons flagged as 'at risk of homelessness', and 74,840 persons identified as 'vulnerable to homelessness').[4] The characteristics of population are presented in Table A2 of the Appendix.

2.3 Selection of clusters

Given the available budget and expected response rates, the number of clusters included in the sample was set to 36. The eligible clusters were further stratified into eight groups: Sydney, Melbourne, Brisbane, Adelaide, Perth, other major cities, one regional centre in the Northern Territory, and all remaining locations. Within each strata, clusters were randomly selected with a probability proportional to their size, where size is measured as the sum of the proportions the cluster contributes to the total of each of the three sub-populations ('homeless', 'at risk', and 'vulnerable') for that strata. That is, the cluster sampling rate r_c for cluster c is:

$$r_c = n_s \left(\frac{\frac{N_{c1}}{N_1} + \frac{N_{c2}}{N_2} + \frac{N_{c3}}{N_3}}{\sum_{k=1}^{K} \frac{N_{k1}}{N_1} + \frac{N_{k2}}{N_2} + \frac{N_{k3}}{N_3}} \right)$$

where n_s is the number of clusters to be selected in each strata (as specified in Table 1), N_1, N_2 and N_3 is the total population in each group (where group 1=homeless, 2=at risk, and 3=vulnerable) summed across all eligible clusters in strata s, N_{c1}, N_{c2} and N_{c3} are the total number of persons in population in each group and cluster c, and K is the total number of eligible clusters in strata s.

2.4 Sample selection

Individuals were then randomly selected from each of the three sub-groups in each cluster based on the following sampling rate:

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[4] Individuals in the May extract were mapped back to the clusters defined in the January extract. For individuals that had moved during the intervening four months or were new to the population, a cluster was assigned based on longitude and latitude co-ordinates that uniquely identify each cluster.

$$r_{cg} = \left(\frac{n_c}{N_{cg}}\right)\left(\frac{\dfrac{N_{cg}}{N_g}}{\dfrac{N_{c1}}{N_1} + \dfrac{N_{c2}}{N_2} + \dfrac{N_{c3}}{N_3}}\right)$$

where r_{cg} is the sampling rate for group g (1=homeless, 2=at risk or 3=vulnerable) within cluster c, n_c is the number to be selected from the cluster across all three groups, and N_{cg} and N_g are as defined above. The target number of interviews in each of these three sub-groups across Australia was expected to be equal (approximately 520 in each).

The number of individuals selected in each cluster was based on the desired number of achieved interviews (36 in major metropolitan areas, 41 in Brisbane and 54 in other areas), and the expected response rate (52%).[5] Extra selections were made to allow for the following:

1. Exclusions identified by DEEWR officials using the Centrelink database (i.e., in prison; overseas; requiring an interpreter; having specifically indicated to Centrelink that they were not willing to participate in research studies; or having a record marked as 'sensitive'). This accounts for about 7 per cent of the original selections.
2. People who moved to locations outside the cluster boundaries (and not into another selected cluster) prior to the fieldwork commencing.
3. Unexpected events during field. In the majority of clusters we allowed a 20 per cent buffer, but in six areas with the greatest proportion of indigenous individuals this buffer was increased to 100 per cent. Each selected individual was randomly ordered in each group in each cluster and the sample was activated in batches. The activated sample that is not known to be out of scope was issued to field and followed to completion to ensure any biases towards easy-to-find cases was avoided.

A total sample of 4,913 was drawn from the selected 36 clusters. Table 1 shows the expected distribution of the achieved interviews across the eight strata.

Table 1: Number of clusters and expected sample size

	Number of clusters			Expected sample size		
	Total	Eligible[3]	Sample	Homeless	At risk	Vulnerable
Sydney	80	36	6	75	73	68
Melbourne	85	37	6	70	83	63
Brisbane	51	24	4	51	55	59

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[5] Interviewers in major metropolitan areas could therefore share the workload of three clusters to permit greater flexibility in matching interviewers to respondents.

Adelaide	40	18	3	39	32	37
Perth	33	18	3	36	36	36
Major cities[1]	9	7	2	37	35	36
Regional centre in NT	1	1	1	18	18	18
Remainder[2]	440	59	11	194	191	209
Australia	**739**	**200**	**36**	**520**	**523**	**525**

Note: 1. Major cities include Newcastle, Wollongong, Canberra and Gold Coast. (Note that Queanbeyan has been included with Canberra so clusters can cross the NSW/ACT boarder.)
2. The remainder of the areas include Tasmania and the rest of NSW, Vic, Qld, SA, WA and NT.
3. Eligible clusters exclude those considered undersized (less than 45 flagged persons, that are 'homeless' or 'at risk', in major metropolitan areas and less than 65 flagged persons in rural or regional centres).

Exclusion criteria were applied after the main sample (n=4,913) was drawn. Any individual selected in the pilot sample is excluded (this resulted in the exclusion of seven people). In addition, based on May 2011 Centrelink records, 324 were initially excluded because of having at least one of the five categories of exclusion flags recorded. Between July and the end of survey period, the five exclusion flags plus a deceased exclusion flag were re-checked four times by DEEWR to identify changes in individuals' circumstances. So, individuals may be excluded at different points in time and some of those who had been excluded earlier were re-included later. The final cut-off date for the excluded sample to re-enter was 23September 2011 as it was the latest date of Centrelink information updates provided by DEEWR[6] that would allow sufficient time for RMR to process the information and approach the re-entered sample.

Table 2 shows the evolution of the sample by three subgroups. As mentioned earlier, the total sample of 4,913 includes a buffer to ensure there are sufficient numbers of the responding sample in case of lower than expected response rates. However, results from the fieldwork were better than expected and only 3,485 (70.9%) cases were activated. Excluding those who were selected into the pilot, those who were identified as having moved out of the survey region prior to fieldwork and those who had one of the six exclusion flags[7], only 2,992 cases were issued to the field. Of those, 2,914 cases were issued in the beginning of fieldwork period, 54 cases were those previously excluded and re-entered after the September

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[6] DEEWR provide contact information and exclusion flags four times for wave 1 fieldwork (two times prior fieldwork commencement and two updates during the fieldwork period). See the next section for more details on address updates.
[7] Since the exclusion flags were updated multiple times, those who were newly flagged after the sample had been issued are considered as issued sample.

information update, and 24 cases were issued in October due to insufficient response in one cluster.

Table 2: The evolution of the sample (by sub-sample)

	Sub-sample (% distribution)			Total (N)
	Flagged as homeless	Flagged as at risk of homelessness	Vulnerable	
Starting population	19.6	11.1	69.3	138 091
Population in eligible clusters	20.5	11.9	67.7	110 616
Sample selected	35.0	33.3	31.7	4 913
Sample activated	35.3	32.9	31.8	3 485
Sample issued	35.0	33.9	31.1	2 992
Initial batch1	34.9	33.9	31.3	2 914
Re-entered batch1	46.3	24.1	29.6	54
Batch 2	20.8	58.3	20.8	24

3 Survey Administration

The fieldwork for wave 1 was conducted over a 12 week-period from 1 September to 2 November 2011.

3.1 Survey Mode

The principal mode of data collection was face-to-face interviews using a questionnaire delivered by Computer Assisted Personal Interviewing (CAPI) via tablet consoles. The time and place of interview was of the sample member's choosing (but subject to concerns about interviewer safety). Telephone was used where that was the sample member's preferred mode of interview or the person had moved to a location outside the reach of the interviewer network. Just 1.6 per cent (n=26) of completed interviews were undertaken by telephone in wave 1. In subsequent waves, however, this proportion can be expected to be higher given sample member mobility.

3.2   Pre-field Approach

Approximately two weeks prior to the beginning of fieldwork all selected sample members were sent, via mail, a letter (the Primary Approach Letter, or PAL) informing them of their selection into the study and encouraging them to participate. It also provided them with details of who to contact should they either have any other questions or wished to provide more up to date information about their own contact details. Accompanying the PAL was a brochure that provided more information about the study, including how sample members came to be selected, the voluntary nature of participation, and details on confidentiality.

3.3   Interviewers and Interviewer Support

All interviews were conducted by professional interviewers employed by Roy Morgan Research, the organisation that was sub-contracted to undertake the fieldwork. A total of 37 interviewers were employed on wave 1. All interviewers are required to attend a two-day project specific training session prior the survey. In addition, wave 1 interviewers working in areas with a high proportion of Indigenous sample participated in a half-day Indigenous training workshop led by an Indigenous Australian Culture consultant.

Interviewers and sample members are supported by a telephone support group (Team 1800), who staff project-specific free-call 1800 telephone numbers. During fieldwork, these numbers were staffed 14 hours a day (8 am to 10 pm), seven days a week. The role of Team 1800 includes: handling respondent calls and emails; assisting interviewers by, for example, advising of changes in respondent details, providing technical CAPI support, advising on field protocols, advising on duty of care issues, and providing emotional support; and tracking respondents pre-field and when cases are returned to the office during fieldwork. A total of 15 Team 1800 staff members were trained on the Journeys Home project.

3.4   Making Contact

The initial set of contact details for all sample members in wave 1 came from the information contained on the Centrelink customer database. This typically includes a home address (available for 89% of selected sample members), a postal address (94%), and a mobile number (80%). It may also include a home (landline) phone number (just 12%) and a telephone number for an alternative contact (10%). The original sample file was provided by DEEWR to Roy Morgan Research on 29 July 2011, with a further sample update provided

just prior to fieldwork commencing (19 August 2011) and two more during fieldwork (23 September 2011 and 28 October 2011).

A major problem confronting the study was that the contact information provided for a substantial proportion of the sample was inaccurate, out of date, or missing. As a result, only 55 per cent of the sample was found to be living at the addresses originally provided. This is not surprising given the unstable housing situation of this population. However, interviewers reported that the DEEWR sample updates were one of the most useful sources of information in finding sample members. Therefore, more frequent DEEWR updates were requested for wave 2 onwards. Five information updates will be provided by DEEWR for wave 2, including one for fieldwork preparation, one right before fieldwork starts and three during the fieldwork period.

In making initial contact with sample members, interviewers were expected to follow a set of protocols. These were:

- Make at least three face-to-face attempts for respondents with known addresses, with each attempt made at different times of the day and week.
- If the sample member does not appear to be 'home' at the time of approach, leave a calling card with interviewer details in a place they were likely to find it. Including a brochure and/or PAL in a Journeys Home envelope addressed to the person was also recommended.
- When arriving at a residence where it is found that the target respondent no longer lives, make enquiries with current residents and neighbours about the sample member's whereabouts.
- Either after three face-to-face attempts, or earlier if it becomes apparent that the respondent will not be found at the address provided, use other available contact details provided for the respondent. This may include a telephone or SMS to the target respondent or approaching an alternative contact (either provided within the respondent information or obtained during fieldwork). Up to at least six telephone attempts must be made for each number.
- Collect current contact information from people who are most likely to know where the target respondent has moved to if they change address.
- If the target respondent can still not be found after face-to-face, telephone or SMS attempts, approach service providers (e.g., the Salvation Army) in the local area to see if they can assist. All interviewers were provided with list of service providers in their

interviewing areas, each of which had previously been sent a letter prior to fieldwork commencing informing them about the survey and mentioning that their assistance may be sought. Interviewers were also encouraged to approach additional providers in the area, and were provided with generic provider letters and brochures to assist in securing their assistance. The overall feedback from interviewers was that while the service providers were supportive of the research, their assistance was often limited due to the restrictions of confidentiality. In most cases the assistance provided was knowledge of the community and particular areas, and passing on interviewer details and materials to respondents.

Interviewers were also encouraged to use their own initiative in trying to locate sample members. This would include, for example, making further call attempts with disconnected mobile numbers (given numbers are often disconnected temporarily), and pursuing searches using the internet or White Pages telephone directory. If the sample member still could not be contacted, the case was then returned to office for Team 1800 where they would initiate further attempts at tracking.

In subsequent waves the sample is restricted only to persons responding in wave 1. As a result, the updated contact information provided at regular intervals by DEEWR will be supplemented by additional contact information (or 'anchor points') collected during the preceding wave interview.

3.5   Incentives

All sample members are offered a $40 incentive each time they agree to be interviewed. In the case of face-to-face interviews, the incentive is provided as cash and paid immediately after the sample member agreed to participation. In the case of telephone interviews, the incentive is sent by mail, in cheque form, to the respondent after completion of the interview. All respondents are given the option to decline payment, though only three respondents in wave 1 elected to do so (all of whom were interviewed by telephone).

3.6   Interview Length

The intent was that the average interview would take 50 minutes in wave 1 and 40 minutes in subsequent waves. The actual average interview length in wave 1 was almost one hour (59.7 minutes), and ranged from 24.6 minutes to 166.8 minutes.

Only 34 per cent of interviews took less than 50 minutes; and 25 per cent were in the 50 to 60 minutes range; leaving 31 per cent taking more than one hour. (2% of cases took more than two hours.) Whether these long interview times will be associated with adverse outcomes in the future (that is, attrition) is unknown.

The most common factors for longer than expected interviews were:

- More time was spent sensitively listening to their stories, especially when they became emotional answering questions;

- English language difficulties;

- The mental state of some respondents (i.e. ADHD);

- Some respondents got "off track" and started talking about other things;

- The interviewer needed more time to develop a level of trust and rapport with the respondents.

Additional guidelines on building rapport with respondents while still maintaining professional boundaries will be provided for the subsequent waves.

3.7 Ethics Approval

All survey protocols, instruments and materials were approved by The University of Melbourne Behavioural and Social Sciences Human Ethics Sub-Committee. The approval process was a two-step process with separate approval being obtained for the piloting stage and the main survey stage (which was conditional on reporting on the pilot test outcomes). The Melbourne Institute also submitted a mid-fieldwork report on complaints and duty of care issues to the ethics sub-committee. An annual report (based on wave 1 fieldwork) was also submitted at the end of December 2011.

4 Response and Sample Characteristics

4.1 Response Rates

A summary of the response outcomes from the wave 1 fieldwork is provided in Table 3. As reported there, a total of 2,992 cases were issued to field. Of these, 273 were subsequently determined to be out-of-scope, mainly because the sample members were known to have moved out of the designated survey interview area (i.e., cluster) prior to fieldwork commencing (n=180), but also because the sample member was away for the entire survey

period, was in prison or in another institution on more than a short-term basis, was a young person still at home with their parents[8], or had died. This gives a total in-scope sample of 2,719 persons.[9]

Interviews were successfully obtained from 1,676 members of this in-scope group. There were also a small number of persons (n=14) that terminated the interview prior to completion. As noted previously, the intent was that the sample of persons followed in waves 2 to 4 would be restricted to those persons interviewed at wave 1. This raised the question of what to do with respondents that terminated their interview and which were unable to be completed at an alternative time. We subsequently decided to include six of the 14 terminations in the responding sample. These were all cases where the termination of interview did not result in the sample member requesting not to be reapproached in the future and where termination of the interview was not the result of English language problems. Further, in five of these six cases a substantial amount of data was collected prior to the termination. The usable sample thus numbers 1,682 cases, giving a response rate of 61.9 per cent.

By almost any yardstick, this is a very good outcome. Other Australian studies that sample from disadvantaged populations typically report obtaining noticeably lower initial response rates. Examples include the Residents Outcomes Study, which reported successfully recruiting 53.5 per cent of its target sample (Thomson Goodall Associates 2001), the Longitudinal Survey of Reconnect Clients, which reported a 45.5 per cent response rate at wave 1 (RPR Consulting 2003), and the On the Outside project, with a 46 per cent response rate (Johnson, Gronda & Coutts 2008).

Of the non-respondents, about 35 per cent refused to participate and a further 13 per cent were still non-responsive at the end of the fieldwork period despite contact having been made (that is, no clear refusal had been given but neither had an appointment for interview been arranged). Together, these two groups (n=507) can be thought of as representing those persons that were reluctant or unwilling to participate. The remainder were mostly persons with whom no contact had been made.

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[8] Concerns about the difficulties obtaining parental consent led to all interviewers being instructed not to attempt interviews with persons under the age of 18 years who were still living with their parents.
[9] This will be an upper bound estimate given that no contact was made with a sizeable number of sample members, some of whom can also be expected to have moved out of scope.

Table 3: Wave 1 call outcomes

Sample outcome	Number	%
Total sample issued	2992	
Less out-of-scope	(273)	
Total in-scope sample	2719	100.0
Completed interviews	1676	61.6
Terminations	14	0.5
Incapable	22	0.8
Refusal	369	13.7
Other non-response		
Contact made	138	5.1
Non-contact and all calls made	316	11.6
Moved to unknown address	184	6.8

4.2   Sample Characteristics and Response Bias

While the response rate is reasonably high, it is still a long way from 100 per cent, thus raising the possibility that non-respondents are systematically different from respondents. In Table 4, therefore, we report figures on the distribution of the responding sample by selected known sample member characteristics (as recorded in the RED) and how they compare with equivalent distributions for both the attempted in-scope sample and the activated sample. [10]

On most characteristics there are few sizeable differences between the attempted in-scope sample and the activated sample, suggesting that for the most part sample exclusions did not markedly affect the composition of the sample. There are, however, three exceptions. First,

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[10] In the six high indigenous population areas, a much larger size of sample than the size needed based on response rate was drawn (a buffer of 100% compared to other area of 20%) due to the unpredictable response rate in those areas, therefore the average characteristics of the original sample (n=4,913) is less meaningful. The rate of indigenous population of original sample is higher than what would be without the differential rates of buffer. Therefore, activated sample characteristics are included.

Indigenous persons were more likely to be excluded from the attempted sample than non-Indigenous persons. This might reflect greater mobility on the part of Indigenous persons. Second, ex-offenders were relatively more likely to be omitted or excluded, reflecting both a higher rate of mobility and a relatively greater likelihood of indicating a preference not to be involved in research. Third, and entirely as expected given our restriction on interviewing persons who move away from the selected clusters, persons who have a recent history of frequently changing address are more likely to have been excluded. Statistically significant differences were also found with respect to gender, country of birth, benefit type and time on income support, but in all of these instances we would argue that the size of the difference is too small to suggest it will make any practical difference to any analysis of the data.

More pervasive and marked differences occur when comparing the responding sample with the in-scope sample, suggestive of response bias. This can be seen most obviously by looking at the differences across groups in the response rate, reported in the final column of Table 4.

Table 4: Sample member characteristics (%)

Characteristic[a]	Activated sample[b] (n=3485)	Attempted in-scope sample (n=2719)	Respondents (n=1682)	Response rate[c]
Homelessness indicator				
Homeless	35.3	34.9	34.5	61.1
At risk	32.9	34.5	37.3	66.9
Vulnerable	31.8	30.6	28.2	57.1
Gender				
Male	60.2	58.8	54.6	57.4
Female	39.8	41.2	45.4	68.2
Age group				
15-17	10.8	11.4	12.6	68.4
18-20	13.9	14.3	14.9	64.4
21-24	12.6	12.8	12.1	58.2
25-34	23.6	23.0	21.6	58.1
35-44	21.4	20.7	19.7	59.1
45-54	12.8	12.8	14.0	67.3
55-64	3.9	4.1	4.5	67.6
65+	1.1	0.9	0.7	48.0
Indigenous status				

Characteristic[a]	Activated sample[b] (n=3485)	Attempted in-scope sample (n=2719)	Respondents (n=1682)	Response rate[c]
Non-Indigenous	80.1	82.3	82.8	62.2
Indigenous	19.9	17.7	17.2	60.1
Country of birth				
Australia	86.2	87.1	87.3	62.0
English speaking country	5.4	5.8	6.1	65.6
Non-English speaking country	8.4	7.2	6.6	56.9
Marital status				
Single	93.0	93.6	93.0	61.5
Married	1.0	0.7	0.7	60.0
Defacto	5.4	5.1	5.7	69.6
Unknown	0.6	0.6	0.5	56.3
Has dependent children				
No	86.7	86.2	83.6	60.0
Yes	13.3	13.8	16.4	73.4
Benefit type				
Not on income support	3.1	2.7	2.6	58.1
Students	5.5	5.8	6.2	66.2
Youth Allowance (other)	16.0	16.8	18.0	65.9
Newstart Allowance	43.4	42.4	38.7	56.5
Disability Support Pension	21.7	21.6	22.1	63.5
Parenting payment	7.5	8.2	10.0	75.7
Other	2.9	2.6	2.5	60.0
Proportion of time on income support (since 1998/ age 16)[d]				
Under age 16	0.6	0.5	0.5	61.5
Less than 0.1	4.5	4.0	2.6	39.4
0.10 to 0.24	7.5	7.7	7.8	63.0
0.25 to 0.49	16.6	16.6	14.9	55.8
0.5 to 0.74	21.6	21.0	19.9	58.4
0.75 to 0.89	18.6	18.8	19.7	64.8
0.9 to 0.99	26.8	27.7	30.5	68.2
1.0	3.7	3.8	4.2	68.3
Ex-offender				

Characteristic[a]	Activated sample[b] (n=3485)	Attempted in-scope sample (n=2719)	Respondents (n=1682)	Response rate[c]
No	78.4	80.6	82.5	63.3
Yes	21.6	19.4	17.5	56.0
Ever recorded psychological / psychiatric problem				
No	60.7	60.5	60.1	61.4
Yes	39.3	39.5	40.0	62.5
Numbers of recorded changes in home address in past year				
0	17.6	18.8	18.2	59.9
1	27.4	28.0	28.2	62.4
2	24.2	24.4	24.5	62.2
3+	30.7	28.9	29.1	62.3
Geographical areas				
Sydney	14.0	15.0	13.3	55.0
Rest of NSW	10.7	9.5	10.1	65.9
Melbourne	13.3	13.9	13.9	61.7
Rest of VIC	6.9	6.7	7.0	63.9
Brisbane	10.0	10.3	11.1	67.0
Rest of QLD	17.1	17.7	15.4	53.8
SA	6.1	6.4	6.5	62.3
WA	10.9	10.4	10.9	64.9
TAS	3.2	3.5	4.8	84.4
NT	7.9	6.6	7.0	65.9

a All characteristics are as recorded in the RED on the 27th May 2011.
b Excludes any persons known to have died prior to 27 May 2011.
c Calculated as the number of respondents divided by the number of in-scope sample members.
d For those who turned 16 after 1998, the variable is defined as proportion of time since age 16. For the others, it is defined as proportion of time since 1998.

4.3   Data Linkage

As previously mentioned, a key feature of the design of the study is the ability to link survey respondent data to their Centrelink administrative data records, which provides accurate information about respondents' income support history. Linking the survey data to these records, however, requires gaining the informed consent of respondents. A consent question was thus included in the wave 1 survey instrument, with 93.5 per cent of respondents

agreeing to their Centrelink information being used for research purposes by research staff within both the Melbourne Institute and FaHCSIA, (and subject to the assurance that no identifying information from the survey would ever be passed on to Centrelink).

4.4   Item Non-response

Survey non-response can also take the form of survey respondents choosing not to, or being unable to, answer specific questions. In most interviewer-administered surveys this is usually not a large problem and Journeys Home is no exception, with item non-response averaging less than 1 per cent. That said, item non-response is an issue in those sub-sections of the instrument where respondents are prompted to consider opting out. As noted earlier, these occur at the start of the section on exposure to violence, and then again within this section prior to the sequence on sexual violence commencing. Almost 7 per cent of respondents indicated that their preference was to skip the exposure to violence sequence, while a further 5 per cent indicated that they did not wish to answer the sexual violence questions.

4.5   Interviewer Observations

Interviewers were asked to indicate whether respondents appeared to have 'problems' that may have affected the interview. A relatively large proportion of respondents (18%) were identified as being affected by at least one problem. Such problems included English language difficulties, mental illness, being under the influence of alcohol or drugs, or just general confusion on the part of the respondent.

Interviewers also rated respondents according to their understanding of the questions, their level of cooperation, and their degree of suspicion about the study. Despite the high prevalence of potential problems, ratings of understanding were mostly very positive (63% = excellent; 30% = good). Less than 1 per cent were assessed as having a poor (or very poor) understanding. Assessments of cooperation were even more favourable (75% = excellent; 22% = good). Further, just over 94 per cent of respondents were recorded as not being suspicious at all about the study, while only a handful of cases (n=8) were very suspicious.

Finally, the interview situation was not always one which the interviewer could control, with 19 per cent involving the presence of another adult. In most of these cases it was the interviewer's opinion that the presence of another adult did not influence any answers. Nevertheless, in just over one-quarter of these cases the presence of another adult was reported as having "a little" influence.

5 Weighting

As shown in the earlier sections, the sampling rate and response rate are not the same across the responding sample. We therefore generated weights that take into account the unequal probability of inclusion into the final responding sample. Three types of weight are provided in the data set.

- Design weight ─ adjusts for the differential probability of selection of the clusters and the three groups within each cluster ('homeless', 'at risk', and 'vulnerable').
- Response weight ─ adjusts for the differential probability of response.
- Population weight ─ adjusts for design and response factors.

Details of how each weight was created are described below.

5.1 Design weight

The design weight adjusts for the differential probability of selection of the clusters and the three groups within each cluster (homeless, at risk, and vulnerable). This weight is calculated as the inverse of the probability of selection of the cluster multiplied by the inverse of the probability of selection of the activated sample in each group given the cluster was selected. That is:

$$w_{design} = \frac{1}{r_c r_{cg} f_{cg}}$$

where r_c is the probability of selecting the cluster c and r_{cg} is the probability of selecting the individual in group g (homeless, at risk or vulnerable) in the cluster c, as defined earlier. An adjustment factor f_{cg} was applied to correct for the fact that not the entire sample selected in the cluster was activated. The factor f_{cg} is calculated as a_{cg}/n_{cg} where a_{cg} is the number of individuals *activated* in cluster c in group g and n_{cg} is the number of individuals *selected* in cluster c in group g.

5.2 Response weight

As discussed earlier, response to the survey was not totally random. Response weights correct for the differential probability of response among that sample that was activated, excluding individuals who were recorded as deceased prior the last information update provided by DEEWR during fieldwork (28 October 2011). The activated sample includes both in-scope sample and out-of-scope sample determined either prior fieldwork or during fieldwork after

being issued to the field. Those out-of-scope were excluded due to practical fieldwork issues rather than because they were not of interest to the survey. They may represent certain types of individuals such as those who were more mobile or with higher propensity to refuse. Therefore, keeping the out-of-scope sample in the response model allows the weights to account for all types of individuals in the sample.

The weight is created by estimating the probability of response using a logistic regression model with variables from the administrative dataset (RED) extracted in January 2012. The response weight is then rescaled such that the sum of the weights is equal to the size of the responding sample (i.e.1,682).

'Response' is counted as either a person who is interviewed or has been identified as overseas and 'non-response' is all other outcomes. The non-response sample includes both non-responding in-scope persons as well as out-of-scope persons, that is, those who were excluded due to practical fieldwork reasons such as moved out of survey region, 15 to17 year olds who were still living with parents and those who were recorded in the Centrelink data base as "no to research" or "sensitive record".

Explanatory variables included in the logistic regression include:

- Demographic variables;

- Income support status at the time the sample was selected and income support histories; and

- A person's characteristics while on income support which include:

  - Indicators that may signal some specific vulnerability within the three months prior to survey commencement or during the survey period, such as relationship breakdown, flagged in one of the nine categories of vulnerability by Centrelink;

  - Psychological disorder and intellectual disorder or acquired brain injury;

  - Indicators that signal the individual's compliance with Centrelink requirements, such as suspension history and failure to meet benefit activity requirements;

- Living arrangements (type of accommodation and numbers of moves, addition and removal of homeless flag);

- Proxies of the likelihood of contacting Centrelink three months prior or during survey period;

- Other indicators, such as whether recorded as an ex-offender or recent release from prison;

• Survey clusters and the three homeless status groups.

A detailed description of variables is included in Table A3 in the Appendix.

The results of the logistic regression, presented in Table 5, largely accord with the descriptive analysis presented in Section 3.[11] Females are more likely to respond to the survey whilst Indigenous/Torres Strait Islanders and individuals born in non-English speaking countries are less likely to respond to the survey. The probability of response does not differ significantly by age (set of age dummies are also not significant jointly). Individuals with a partner on income support are more likely to respond than those who were single and those whose partner is not an income recipient.

Interestingly, though Youth Allowance (YAO) and Newstart Allowance (NSA) recipients have similar activity requirements, YAO recipients have the highest probability of response while NSA recipients have almost the lowest probability of response among IS recipients.

Those who were on IS only for a short period of time (less than 6 months) in the last five years are significantly less likely to respond, while the rest basically have a similar response rate.[12] The response rate also decreases with the total numbers of income support spells, conditional on total length on IS, indicating that those people whose circumstances changed more frequently are less likely to respond. Those who were not on IS in the entire survey period have a much lower response rate, possibly due to the difficulty of locating them as address updates are not required when people are off IS payments.

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[11] Small differences may be found between the analysis of response rate and the regression results presented here as the former only looked at response rate among in-scope sample and the later includes both in-scope and out-of-scope activated sample.

[12] We also tested the model using proportion of time on income support, similar results were found. However, we decided to present the amount of time on IS as the length been on income support would capture individuals' familiarity with the income support system better.

Individuals flagged by Centrelink as being 'vulnerable'[13] are also less likely to respond, as are those who have had a recent relationship breakdown. Surprisingly, having a psychological disorder does not affect the probability of response. Additionally, the probability of response is higher for those ever recorded with an intellectual disorder or acquired brain injury, but this effect is not statistically significant. Note that health conditions are only recorded for a subset of Income Support recipients and they do not represent all income support recipients with these health conditions.

Persons with more recent contact with Centrelink offices, where recorded changes in circumstances are used as a proxy of contact, are more likely to respond. Two possible factors may contribute to this. Firstly, people with more recent contact with Centrelink offices may have also updated their contact details should they move and thus were easier to be contacted. Secondly, this may be a group that complied with Centrelink reporting requirements and therefore were more likely to respond to the surveys initiated by the government.

In terms of housing mobility, as expected, those who moved more frequently have a lower probability of response and the relationship is very strong. As mentioned in the previous section, non-contact and moving out of the survey region are the most common non-response reasons for the activated sample. Thus, the strong relationship between move indicators and response is not surprising. However, conditional on the number of moves, those who lived in public housing are least likely to respond and those who lived rent free and in residual categories of accommodation (such as a nursing home, community housing or in a caravan paying site fees) are most likely to respond, followed by those in private rental. Therefore, it appears that those who do not have stable housing are more willing to respond, which is counterintuitive. We suspect that the difficulty of locating people with unstable housing is captured by the 'numbers of move' variable and this set of accommodation type variables may capture whether individuals felt the Journeys Home study is relevant given their housing situation.

As for the 'homeless' status (based on the 27 May 2011 record, i.e. the three groups used in sampling), the 'at risk' group had the highest probability of response among the three groups, while the 'probability of homelessness' and 'vulnerable to homelessness' groups were fairly similar. The improvement of housing circumstances ('homeless' or 'at risk' flags removed by

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[13] These are individuals who recorded an episode of the 9 types of vulnerability in the Centrelink record (see Appendix table A3 for details) which is different from the vulnerable population defined in this survey.

24

Centrelink) is associated with a higher probability of response. Whilst the deterioration of circumstances ('homeless' or 'at risk' flags added by Centrelink) is associated with a lower probability of response.

Table 5: logistic regression results

Variable	Coefficient	Standard error	P-value
Female	0.152	0.086	0.078
Indigenous/Torres Strait Islander	-0.327	0.111	0.003
Country of birth (Australia)			
English Speaking Country	0.122	0.166	0.463
Non - English Speaking Country	-0.452	0.143	0.002
Age Category (< 18 years)			
18-20	-0.203	0.173	0.241
21-24	-0.123	0.228	0.589
25-34	-0.160	0.221	0.469
35-44	-0.184	0.223	0.409
45-54	0.144	0.232	0.535
55-64	0.028	0.279	0.919
65+	-0.575	0.486	0.237
Partner status at start of fieldwork (No partner)			
Have partner not on IS	-0.593	0.372	0.110
Have partner on IS	0.456	0.176	0.009
Missing	0.462	0.404	0.253
Have a child at the start of fieldwork	0.204	0.183	0.265
Benefit type (NSA)			
Not on income support	-0.563	0.425	0.185
Student	0.019	0.227	0.935
Youth Allowance other	0.479	0.200	0.017
Disability Support Pension	-0.027	0.118	0.822
Parenting Payment	0.202	0.226	0.370
Other	-0.187	0.290	0.519
Time on IS in the past 5 years (5 years)			
3 months or less	-1.343	0.596	0.024
4 to 6 months	-0.502	0.223	0.024
6 months to 2 years	-0.015	0.150	0.919
2 to less than 5 years	0.000	0.124	0.998
No: of benefit episodes in the past 5 years/since 16 years old	-0.090	0.039	0.020
Not receiving benefits entire fieldwork	-0.577	0.281	0.040
Ever incarcerated	-0.115	0.107	0.281
Ex offender in the past 3 months	-1.473	0.570	0.010
Ex offender during fieldwork	-1.262	0.539	0.019
Ever had psychological disorder	0.020	0.088	0.820
Ever had intellectual disorder	-0.225	0.157	0.151
Had relationship breakdown in the past 3 months	-0.759	0.343	0.027
Had vulnerability recorded in the past 3 months	-0.507	0.284	0.074
Had vulnerability recorded during fieldwork	-0.426	0.184	0.021
Failed Centrelink requirement in the past 12 months (Never)			

Variable	Coefficient	Standard error	P-value
Failed once	-0.061	0.163	0.709
Failed Centrelink twice or more	-0.191	0.133	0.150
Number of suspensions in the last 2 years	-0.157	0.093	0.092
Contact with Centrelink before fieldwork	0.118	0.141	0.400
Contact with Centrelink during fieldwork	0.344	0.145	0.017
Rent payment type at start of fieldwork (Private)			
Government	-0.276	0.099	0.005
Lodgings	-0.002	0.102	0.986
No rent	0.306	0.353	0.387
Other	0.439	0.218	0.044
Not in rent table	-0.012	0.145	0.931
Moves in the past 3 months (No move)			
1 move	-0.300	0.092	0.001
2 moves	-0.516	0.160	0.001
3 or more moves	-0.686	0.307	0.026
Not in the postcode table	-0.735	0.476	0.123
Moves during fieldwork (No move)			
1 move	-0.395	0.099	0.000
2 moves	-0.373	0.196	0.056
3 or more moves	-0.932	0.337	0.006
Not in the postcode table	0.071	0.413	0.862
Homeless status at sampling (Homeless)			
At risk	0.157	0.091	0.083
Vulnerable	0.005	0.097	0.959
Homeless flag added before fieldwork	-0.678	0.422	0.108
Homeless flag removed before fieldwork	0.178	0.130	0.169
Homeless flag added during fieldwork	-0.445	0.434	0.305
Homeless flag removed during fieldwork	0.420	0.155	0.007
Cluster (11001)			
11006	0.311	0.322	0.334
11021	0.329	0.331	0.320
11029	0.127	0.330	0.701
11047	0.452	0.332	0.174
11069	-0.014	0.331	0.967
16024	0.376	0.302	0.213
16027	-0.278	0.293	0.342
17023	0.426	0.295	0.149
21002	0.411	0.330	0.214
21008	-0.084	0.328	0.797
21023	0.424	0.324	0.190
21039	0.038	0.326	0.908
21053	0.151	0.332	0.650
21061	0.864	0.348	0.013
22001	0.353	0.300	0.240

Variable	Coefficient	Standard error	P-value
22044	0.223	0.295	0.451
31001	0.803	0.325	0.014
31005	0.481	0.327	0.141
31013	0.223	0.305	0.465
31032	0.492	0.329	0.135
34001	-0.353	0.304	0.245
34024	-0.189	0.302	0.531
34033	0.225	0.302	0.457
34059	0.109	0.292	0.709
35002	-0.014	0.293	0.963
41001	0.180	0.338	0.593
41028	0.489	0.342	0.153
41039	0.137	0.330	0.677
51001	0.257	0.340	0.449
51010	-0.065	0.308	0.834
51023	0.505	0.327	0.123
52002	0.412	0.299	0.168
61002	1.452	0.323	0.000
71001	0.461	0.300	0.124
71008	0.476	0.307	0.121
Constant	0.278	0.360	0.440
Observations		3469	
Pseudo R2		0.093	
Log Likelihood		-2180.9	
Likelihood ratio test		446.3	

Note: Base category in parenthesis.

5.3 Population Weight

Population weight is the multiplication of the design weight and the response weight, with a rescaling factor so the sum of the weights across both respondents and those overseas in each of the homeless, 'at risk' and 'vulnerable' groups equal the size of the total population of that group. The population here refers to Journey Home population in clusters that were not undersized (i.e. Survey population) excluding those who were deceased prior to 28 October 2011.

The size of the survey population (excluding deceased persons) is 22,568 for the 'homeless' group; 13,101 for the 'at-risk' group; and 74,682 for the 'vulnerable' group.

The sum of the weights for the responding sample is 107,597.

We also include another population variable in the data set which is population weight rescaled so the sum of the weights equals the size of the responding sample (i.e. 1,682).

The average weights are 38.3 for the 'homeless' group; 20.1 for the 'at risk' group and 152.3 for the 'vulnerable' group. The population weights for the 'vulnerable' group are much higher than those of the other two groups due to the low sampling rate. As a result, statistics weighted using population weight may be dominated by the results of the 'vulnerable' group. The large variation in weights is due to the nature of sampling design.

If researchers would like the statistics to be influenced more evenly from the three groups, they may like to consider using the response weight or re-scale the population weight by group-specific scaling factors (based on the survey population of the three groups provided above) to lower the effects of the unequal sampling rate. However, for statistics that estimate numbers such as "numbers of homeless persons in the Journeys Home survey population", population weight without recalling should be used.

Due to the fact that the Journeys Home population is pre-selected based on individuals' characteristics (see section 2 for sampling design), it is worth keeping in mind that the characteristics of the Journeys Home survey population are very different from the characteristics of the general population and the general income support population.

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7   Appendix

Table A1: Model of being homeless or at risk

	Coef.	*Std. Err.*	*z*
Female	-0.193	0.012	-15.47
Indigenous	0.245	0.017	14.73
Ever lived in an indigenous community	0.034	0.031	1.12
Born abroad in an English speaking country (ref=born Australia)	0.204	0.023	8.92
Born abroad in a non English speaking country	-0.059	0.019	-3.14
Born before 1981	2.608	0.048	54.18
Age (ref=Age<18)			
Age 18-20	-0.926	0.024	-38.40
Age 21-24	-0.749	0.033	-22.50
Age 25-29	-0.648	0.035	-18.54
Age 30-34	-2.716	0.059	-46.02
Age 35-39	-2.664	0.059	-45.05
Age 40-44	-2.687	0.059	-45.18
Age 45-49	-2.712	0.060	-45.20
Age 50-54	-2.925	0.061	-47.69
Age 55-59	-3.245	0.064	-50.44
Age 60-64	-3.621	0.069	-52.43
Age 65+	-3.901	0.124	-31.35
Marital status (ref=De facto)			
Married	-1.063	0.045	-23.48
Missing	0.123	0.210	0.59
Single	0.526	0.026	20.25
Children			
Has children	-0.183	0.045	-4.07
Youngest child (ref=no dependent child)			
Youngest child age 1-2	-0.066	0.075	-0.87
Youngest child age 3-4	-0.158	0.087	-1.83
Youngest child age 5-12	-0.191	0.064	-2.96
Youngest child age 14-15	-0.005	0.086	-0.06
Female*youngest child age 1-2	0.254	0.078	3.26
Female*youngest child age 3-4	0.177	0.092	1.92
Female*youngest child age 5-12	0.298	0.062	4.82
Female*youngest child age 14-15	0.121	0.089	1.36
Two children (ref=one child)	0.105	0.067	1.57
Three children or more	0.303	0.070	4.33
Female*two children	0.055	0.074	0.74
Female*three children	0.021	0.078	0.26

Table A1 (cont'd)

	Coef.	*Std. Err.*	*z*
Living arrangement (ref=government rent)			
Not in the rent table	0.255	0.069	3.73
No rent paid	1.375	0.068	20.37
Other rent	0.891	0.073	12.15
Lodging/paying board	1.244	0.068	18.37
Private rent	0.508	0.068	7.52
Proportion of time on income support since 1998 or age16 (base<25%)			
25-50% of time on IS	0.162	0.020	8.26
50-75% of time on IS	0.325	0.020	16.32
75-90% of time on IS	0.444	0.022	20.20
90-99% of time on IS	0.575	0.021	26.80
100% of time on IS	0.149	0.031	4.82
Proportion of time on IS missing (<16)	0.670	0.099	6.74
Proportion on income support during the past year (base<25%)			
25-50% of time on IS	-0.922	0.024	-38.15
50-75% of time on IS	-1.029	0.024	-42.36
75-90% of time on IS	-1.118	0.027	-40.76
90-99% of time on IS	-1.106	0.024	-47.04
100% of time on IS	-1.313	0.021	-61.18
Benefit type (base=not on benefit)			
Student	0.259	0.055	4.69
NSA	1.559	0.056	28.05
YAO	1.732	0.049	35.01
DSP	1.436	0.051	27.99
PPS/PPP	1.337	0.058	22.96
AGE	-0.189	0.125	-1.51
Special benefit	2.864	0.100	28.64
Other	0.621	0.066	9.42
Earnings			
With business earnings in the previous year	-0.440	0.092	-4.76
With earnings in the previous year	-0.094	0.021	-4.44
With earnings within two years	0.090	0.019	4.75
Average earnings in the previous year	-0.016	0.001	-16.64
Average earnings within the previous two years	0.002	0.001	2.15
Ever been ex-offender	0.567	0.018	31.83
Suspensions			
Has been suspended once in the past year	-0.184	0.025	-7.39
Has been suspended twice or more in the past year	0.197	0.054	3.62
Ever been on weekly payment	0.233	0.032	7.27

Table A1 (cont'd)

	Coef.	Std. Err.	z
Numbers of moves in the past year (base=no move)			
1	1.072	0.014	77.11
2	1.601	0.016	99.60
3	1.966	0.020	95.96
4-5	2.347	0.023	101.50
6+	2.845	0.038	75.50
Overseas	-1.150	0.305	-3.78
ABS homeless/resident ratio by region	0.001	0.000	5.43
Youth independent	0.561	0.034	16.52
Youth homeless	1.220	0.031	39.79
Ever youth homeless	0.643	0.021	31.27
Medical condition			
Other primary medical condition in the past 2 years	0.055	0.020	2.72
Ever had intellectual/learning problems/Acquired Brain Impairment	-0.173	0.030	-5.68
Intellectual/learning problems/Acquired Brain Impairment recent 2 years	0.270	0.046	5.89
Ever had Psychological/psychiatric problem	0.328	0.015	22.36
Psychological/psychiatric problem recent 2 years	0.363	0.020	18.30
Current vulnerability status defined by Centrelink			
Drug/alcohol dependent	0.235	0.030	7.73
Ever drug/alcohol dependent	0.233	0.023	10.06
Homeless: beyond the control of the customer	3.274	0.030	108.64
Ever homeless: beyond the control of the customer	0.761	0.024	31.88
Nationally approved vulnerability	1.380	0.261	5.29
Traumatic relationship breakdown within the past year	0.714	0.052	13.72
Lack of literacy and language skills	-0.299	0.036	-8.30
Served 8 weeks NPP in previous 12 months	0.977	0.080	12.19
Released prisoners (in recent 1 year)	-0.129	0.036	-3.62
Constant	-6.548	0.093	-70.75

Pseudo R-squared= 0.4492

Log likelihood = -161728.3

Numbers of observations= 4841357

Note: The "overseas" variable corresponds to people had a postcode of 0.

Table A2: Characteristics of Journey Home Population

Characteristic[a]	Survey population	Initial population			
		All	Homeless	At Risk	Vulnerable
Numbers of observations	110,616	138,091	27,017	15,319	95,755
Homelessness indicator					
Homeless	20.5	19.6			
At risk	11.9	11.1			
Vulnerable	67.7	69.3			
Gender					
Male	62.3	62.2	59	55.4	64.2
Female	37.7	37.8	41	44.6	35.8
Age group					
15-17	11.5	11.7	7.8	13.9	12.4
18-20	15.2	15.1	15.5	15.1	15
21-24	12.3	12.2	13.3	11.4	12.1
25-34	25.2	25.2	23.6	21.9	26.1
35-44	21.7	21.8	21.4	19.3	22.3
45-54	11.3	11.3	13	12.1	10.7
55-64	2.4	2.4	4.4	4.9	1.4
65+	0.4	0.4	1.1	1.4	0
Indigenous status					
Non-Indigenous	81.1	77.8	78.8	82.1	76.8
Indigenous	18.9	22.2	21.2	17.9	23.2
Country of birth					
Australia	85.2	87.1	86.4	85.9	87.5
English speaking country	5.9	5.4	5.3	5.6	5.4
Non-English speaking country	8.9	7.5	8.3	8.5	7.1
Marital status					
Single	95	94.3	91.5	91.4	95.5
Married	0.5	0.5	1.3	1.6	0.1
Defacto	3.9	4.7	6.2	5.7	4.1
Unknown	0.5	0.5	1.1	1.3	0.3
Has dependent children					
No	88.6	88.1	84.6	83.9	89.7
Yes	11.4	11.9	15.4	16.1	10.3
Benefit type					
Not on income support	2.2	2.2	5.3	4.9	0.8
Students	4.7	4.5	5.1	9	3.7
Youth Allowance (other)	18.7	18.8	14.6	15.9	20.5
New Start Allowance	48.8	49.1	41.6	35.6	53.4
Disability support Pension	17.8	17.6	21.9	21.5	15.7
Parenting payment	6.2	6.3	8.7	9.6	5.1

Characteristic[a]	Survey population	Initial population			
		All	Homeless	At Risk	Vulnerable
Other	1.6	1.6	2.8	3.5	0.9
Proportion of time on income support (since 1998/ age 16)[d]					
Under age 16	0.5	0.5	0.3	0.5	0.5
Less than 0.1	7.4	7	2.9	3.6	8.7
0.10 to 0.24	7.8	7.5	6.6	7.9	7.7
0.25 to 0.49	16.4	16.3	15.2	16.4	16.5
0.5 to 0.74	22.1	22.3	22.3	21.1	22.5
0.75 to 0.89	17.3	17.7	19	16.9	17.5
0.9 to 0.99	25.5	25.8	29.5	27.7	24.5
1.0	3.0	2.9	4.1	5.8	2.1
Ex-offender					
No	77.9	77.6	80.2	81.5	76.2
Yes	22.1	22.4	19.8	18.5	23.8
Ever recorded psychological / psychiatric problem					
No	60.6	61.9	59.5	61.5	62.7
Yes	39.4	38.1	40.5	38.5	37.3
Numbers of recorded changes in home address in past year					
0	11.7	11.5	21	26.2	6.5
1	31.2	30.9	24.8	27.5	33.2
2	27.2	27.4	22.5	20.8	29.9
3+	29.9	30.1	31.8	25.6	30.4

Table A3 Variable Description and Summary statistics

Variable	Categories	Frequency (n)	Proportion (%)
Responded to survey (yes = responded to survey or overseas during survey period)	No	1763	50.8
	Yes	1706	49.2
Gender	Male	2086	60.1
	Female	1383	39.9
Indigenous or Torres Strait Islander	No	2787	80.3
	Yes	682	19.7
Country of birth	Australian born	2988	86.1
	English speaking country	189	5.4
	Non English speaking country	292	8.4
Age category at the start of fieldwork	15-17	308	8.9
	18-20	514	14.8
	21-24	450	13.0
	25-34	822	23.7
	35-44	747	21.5
	45-54	447	12.9
	55-64	143	4.1
	65+	38	1.1
Partner on IS at start of fieldwork period	No partner	2887	83.2
	Have partner not on IS	33	1.0
	Partner on IS	185	5.3
	Missing	364	10.5
Have a child at the start of fieldwork	No	3036	87.5
	Yes	433	12.5
Benefit type at the start of fieldwork	Not on IS	404	11.6
	Student	175	5.0
	Youth allowance other	469	13.5
	Newstart allowance	1272	36.7
	Disability support pension	783	22.6
	Parenting Payment	272	7.8
	Other	94	2.7
Time on IS in the past 5 years	3 months or less	22	0.6
	4 to 6 months	156	4.5
	6 months to 2 years	779	22.5
	2 to less than 5 years	1888	54.4
	5 years	624	18.0

Variable	Categories	Frequency (n)	Proportion (%)
Number of benefit episodes in the past 5 years, if gap between episodes was less than 28 days the episodes would to summed into one episode	Continuous variable min 0 max 12 episodes. One respondent had benefit episodes removed therefore have zero episodes in the period	2.020[a]	1.276[b]
Number of benefit suspensions in the past 2 years	Continuous variable min 0 max 7 suspensions	0.114[a]	0.456[b]
Off Centrelink during fieldwork – not receiving any benefit during the entire fieldwork period	No	3192	92
	Yes	277	8.0
Ever recorded as an Ex offender (those recently released from prison and applied for Special Benefit)	No	2715	78.3
	Yes	754	21.7
Recorded as Ex offender before fieldwork	No	3437	99.1
	Yes	32	0.9
Recorded as Ex offender during fieldwork	No	3430	98.9
	Yes	39	1.1
Ever reported having a psychological disorder to Centrelink	No	2063	59.5
	Yes	1406	40.5
Ever reported having an intellectual disorder to Centrelink	No	3232	93.2
	Yes	237	6.8
Had relationship breakdown before fieldwork – which is a change from being partnered to not partnered	No	3422	98.6
	Yes	47	1.4
Had a vulnerability start before fieldwork (i.e. cognitive/neurological impairment, drug and alcohol dependent, illness/injury requiring frequent treatment, jobseeker in transition, literacy and language problems, nationally approved vulnerability, psychiatric/mental illness, recent traumatic relationship breakdown, released prisoner and caring responsibilities)	No	3405	98.2
	Yes	64	1.8
Had a vulnerability start during fieldwork	No	3305	95.3
	Yes	164	4.7
Failed Centrelink requirement in the	No	2825	81.4

Variable	Categories	Frequency (n)	Proportion (%)
past 12 months, benefit is suspended or cancelled because of failure to meet activity requirements associated with benefit type	Once	236	6.8
	Twice or more	408	11.8
Had contact with Centrelink before fieldwork, which includes change in benefit type details, change in marital status and change children related details i.e. shared care arrangements, new child and partner information	No	3179	91.6
	Yes	290	8.4
Had contact with Centrelink during fieldwork	No	3080	88.8
	Yes	389	11.2
Rent payment type at the start of fieldwork	Private	1103	31.8
	No rent	1073	30.9
	Lodgings	841	24.2
	Government	41	1.2
	Other	115	3.3
	Not in rent table	296	8.5
Number of new address recorded in the past 6 months – using the postcode table	none	2410	69.5
	1	752	21.7
	2	216	6.2
	3 or more	58	1.7
	not in postcode table	33	1.0
Number of new address recorded during fieldwork	none	2620	75.5
	1	621	17.9
	2	132	3.8
	3 or more	52	1.5
	not in postcode table	44	1.3
Homeless status at sampling time	homeless	1222	35.2
	at risk	1145	33
	vulnerable	1102	31.8
Homeless flag was added before fieldwork	No	3438	99.1
	Yes	31	0.9
Homeless flag removed before fieldwork	No	3112	89.7
	Yes	357	10.3
Homeless flag added during fieldwork	No	3440	99.2
	Yes	29	0.8
Homeless flag removed during fieldwork	No	3234	93.2
	Yes	235	6.8
Survey Clusters	11001	98	2.8
	11006	81	2.3

Variable	Categories	Frequency (n)	Proportion (%)
	11021	76	2.2
	11029	77	2.2
	11047	73	2.1
	11069	78	2.2
	16024	112	3.2
	16027	133	3.8
	17023	125	3.6
	21002	74	2.1
	21008	79	2.3
	21023	83	2.4
	21039	81	2.3
	21053	77	2.2
	21061	69	2.0
	22001	116	3.3
	22044	124	3.6
	31001	84	2.4
	31005	77	2.2
	31013	104	3.0
	31032	80	2.3
	34001	110	3.2
	34024	113	3.3
	34033	110	3.2
	34059	134	3.9
	35002	130	3.7
	41001	69	2.0
	41028	68	2.0
	41039	77	2.2
	51001	69	2.0
	51010	109	3.1
	51023	84	2.4
	52002	116	3.3
	61002	110	3.2
	71001	128	3.7
	71008	141	4.1

a – mean value b – standard deviation