



FACULTY OF
BUSINESS &
ECONOMICS

**JOURNEYS HOME
WAVE 6 TECHNICAL REPORT
October 2014**

Fieldwork, Response and Weighting

**Report prepared for the Australian Government Department of
Social Services**



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1 Introduction

Journeys Home survey wave 6 fieldwork was conducted over 11 weeks from 1 March to 11 May 2014. At the conclusion of fieldwork 1,406 out of the 1,682 target sample were interviewed (an achievement rate of 83.6%).

In wave 6 we continued to collect information on individuals' personal characteristics (and especially those that can change over time), housing and living arrangements, employment, financial situation, support services and networks, health and well-being, contact with the justice system and exposure to violence. Additional information collected only in wave 6 included, psychological resources, cognitive ability, internet usage, difficulty accessing healthcare services, sleep quality, marital history, parents marital history, children's education and care, and gambling history.

This technical report documents wave 6 fieldwork administration, fieldwork outcomes, and weighting. Since it is the last wave of Journeys Home survey planned so far, some additional comments on outcomes across all six waves were added. The arrangement of the rest of the report is as follows:

- Section 2, Survey Administration: describes important fieldwork protocol, interview length and major difficulties confronted during wave 6 fieldwork, as well as reporting on interviewer feedback.
- Section 3, Response Rate and Sample Characteristics: summarises survey outcomes including response rates and sample characteristics.
- Section 4, Weighting: presents the method used to generate response weights and population weights.

2 Survey Administration

The procedures for pre-fieldwork approach, tracking and contacting sample members, and incentives remained the same as in wave 5 fieldwork; therefore they will not be discussed in this report. In the following we discuss the sample approached in wave 6, outcomes by survey mode, changes to interviewers, interviewer training and support, Department of Employment (formerly DEEWR) sample updates, interview duration, length of time between interviews, complaints made and duty of care cases.

2.1 *Sample*

The survey aimed to conduct follow-up interviews with 1,682 wave 1 respondents. However practical reasons prohibited some of the wave 1 respondents being followed up for an interview. Those not re-approached included, 21 deceased, 59 who previously indicated they no longer wanted to participate, and 2 who are permanently incapable. This leaves 1,600 that were re-approached to participate in wave 6 fieldwork.

2.2 *Survey Mode*

Interviews were conducted either face-to-face or by telephone using a Computer Assisted Personal Interviewing (CAPI) tablet console. The pre-dominant method of data collection is face-to-face interviews. In total 1,137 (81.1%) of completed interviews were conducted face to face and 265 (18.9%) were telephone interviews. Telephone interviews were carried out if it was the sample member's preference or if they had moved outside the reach of the interviewer's network. The proportion of telephone interviews rose by 0.8 per cent compared to wave 5 fieldwork.

2.3 *Interviewers and Interviewer Support*

A total of 29 interviewers took part in wave 6 fieldwork. Of the 29 interviewers, 26 had worked in previous fieldwork periods and 3 were new to the survey replacing those not available for wave 6 fieldwork. The new interviewers had a large amount of experience and good skills with at least 100 hours of face-to-face interviewing experience, excellent communication and time management skills, investigative skills to locate respondents, and an invested interest in the project.

The 26 interviewers with prior experience in the Journeys Home survey received 3 hours of training in preparation for fieldwork. The training sessions were conducted via teleconference with the focus of the training sessions being on changes to the wave 6 questionnaire and any issues that needed re-iteration. The 3 new interviewers received 2 days of face-to-face training. The material covered in those sessions was the same as those of the continuing Journeys Home interviewers, but was covered in more detail. The topics covered included:

- The background and purpose of the survey;
- An overview of Wave 5 results;
- The sample, interviewing areas, managing sample movement, and call attempts;
- The survey materials;
- Team 1800 and *Journeys Home* resources (e.g. 1800 number, inbox, website);
- Fieldwork protocols and tips for tracking their sample;
- Department of Employment updates;
- Support for interviewers and personal safety;
- Duty of care issues, protocols and other support for respondents (e.g. providing counselling numbers);
- Complaint handling;
- Tips for telephone interviewing, if required;
- Working with service providers to find respondents;
- Gaining cooperation and building and maintaining rapport with respondents;
- Recording activities, focusing on the importance of recording information and any changes made for Wave 6;
- Utilising previous wave information (e.g. recommended reapproach and helpful comments on the respondent);
- Incentive payments, including the addition of gift cards for telephone interviews;
- The questionnaire, focusing in particular on changes for Wave 6 and any areas which required a refresher;
- Importance of explaining confidentiality and privacy;
- Importance of recording recommendations for future waves (in the event that further waves are commissioned);
- Recording any errors or corrections for the office;
- Interviewer pay and timesheets.

The face-to-face interviewers receive support from Team 1800. Team 1800 assists interviewers by advising on sample member's change in contact details, CAPI technical support, handling safety calls for interviewers in difficult areas, providing emotional support,

advising on fieldwork protocols, assisting in locating service providers and if needed, advising on duty of care issues with the involvement of the project management team. A total of 28 Team 1800 staff members were trained on *Journeys Home* for Wave 6. Team 1800 staff underwent a full day of training in late February or early March 2014. Of the total trained for Wave 6, 24 Team 1800 members had worked on the project in one or more previous waves.

2.4 Pre-field approach

As a strategy to encourage participation, and thereby maximise the response rate, a considerable effort was made to inform the sample members (that is those who participated in Wave 1 and were being re-attempted for Wave 6) of the study prior to its commencement.

The 'keep in touch' activities were conducted in late January 2014. Contact was attempted with respondents being approached for Wave 6 via multiple channels, including SMS, email and mailing out a letter. All of these communications emphasised the scope and success of the survey, thanked them for their on-going participation, informed them that Wave 6 was being commissioned to start in 2014, informed them what the incentive would be, survey length, that new questions will be asked, and provided the *Journeys Home* 1800 number and email address the event their details changed or if they had any questions. The aim was to:

- Recontact as many respondents as possible
- Maximise respondents' ongoing interest in the study
- Obtain and process the updated contact details from respondents prior to the commencement of field

The attempted sample for Wave 6 were sent 'keeping in touch' materials which varied depending on whether or not they participated in Wave 5

Approximately 2 weeks prior to the beginning of fieldwork the entire Wave 6, sample members were sent a Primary Approach Letter (PAL) and brochure outlining the survey. These were mailed out in envelopes with an official Government crest and the *Journeys Home* logo to the listed residential and/or postal addresses.

As per previous waves, the PAL was designed to inform respondents that they would be approached again to participate in Wave 6, and to encourage them to participate. It was personalised with the individual's respondent ID, name and contact number (if provided) and provided them the opportunity to contact Roy Morgan Research via the 1800 number or

email should they have any questions or if they wished to provide up-to-date contact details. The letter emphasised the scope of the survey by mentioning the approximate number of people who participated in Wave 1 and subsequent waves.

The brochure accompanying the PAL outlined the survey in more detail. Additional information included how they were selected to be invited to participate, details on confidentiality and voluntary participation. The brochure adhered to The Melbourne University's Ethics Committee's Plain English Statement requirements.

2.5 Sample updates from the Department of Employment (formerly DEEWR)

The Department of Employment (who provided the original sample in Wave 1) regularly provided sample updates which were extracted from the Centrelink administrative records on the following dates:

- 31 January 2014 (pre-fieldwork)
- 28 February 2014
- 21 March 2014
- 11 April 2014
- 25 April 2014

These updates were used in locating respondents, particularly if they had proven difficult to find. The information provided to Roy Morgan Research includes:

- The most recent contact information available and a flag indicating when the contact information changed, known as a date of effect;
- Flags for respondents who were deceased, overseas, or in prison.

2.6 Tracking and making contact

Interviewers were instructed to follow the below call protocols in locating their sample:

- Review the reapproach suggestions and comments provided in Wave 5 for Wave 6 in planning their call strategies
- Approach respondents who would be difficult to locate early in field (e.g. those with no fixed address, or are known to move around)

- Utilise all available contact information to locate a respondent, keeping in mind the respondents' preferred method of contact communicated in the previous wave, or in between waves
- If a respondent has moved, follow-up with the current residents, neighbours, and any personal contacts provided previously
- If the respondent has an email, request Team 1800 to send an email to the respondent
- Make enquiries with any service providers which may be of assistance, as either provided by the respondent or proved to be helpful previously;
- Utilise the sample updates provided by the Department of Employment during fieldwork, including flags for deceased, in prison, and overseas respondents;
- If the respondent was still unable to be located, the interviewer then returned the sample to the office for Team 1800 to track.

Most of the above strategies proved to be useful in locating sample members. The exception was service providers, who across all waves of *Journeys Home* have proven helpful in some instances but also restricted in the assistance they were able to provide due to confidentiality. While the sample updates are one of the most effective methods of tracking sample members, feedback from interviewers and Team 1800 is that they are becoming less useful as waves continue. There are two possible explanations, one is that over time more and more *Journeys Home* sample members were off Centrelink payments and therefore not updating their addresses. The other possible reason is that the experience of locating sample members accumulated over time by the interviewers and Team 1800 is making them less reliant on Centrelink address updates.

Feedback from interviewers and Team 1800 indicate that the most common reasons sample members could not be found was because they had either moved to unknown addresses or their personal numbers were disconnected or not answered. Furthermore, if an alternative contact number was provided, it was not uncommon that the people called also did not know where the sample member was.

2.7 *Managing Sample Movement*

Similar to previous waves, the movement of the sample was managed on a daily basis throughout fieldwork. Interviewers were each provided with a list of 'in-scope suburbs' for their interviewing area/s and were instructed to 'return to office' any sample which moved outside of their area. The new address or location that the respondent moved to was then reviewed by the *Journeys Home* project team which made a decision based on the following criteria:

- If within scope for another cluster area (or just near the boundary) the sample was reassigned to the face-to-face interviewer in that area, unless the respondent had requested a phone interview;
- If outside of all cluster areas the sample was reassigned for approach via telephone by Team 1800. In some instances sample was assigned to a face-to-face interviewer (who had previously interviewed the respondent) to conduct a telephone interview;
- Where the sample moved just outside of the boundary of the cluster area, the sample was left assigned to the interviewer who was instructed to approach the respondent face-to-face to obtain an interview.

2.8 *Interview length and duration between interviews*

Additional questions on psychological resources, cognitive ability, internet usage, difficulty accessing healthcare services, sleep quality, marital history, parents marital history, children's education and care, and gambling history were added to the questionnaire in wave 6. The extra questions included those of historical nature, time invariant and time variant. The interview time is expected to be 40 minutes per person. The actual length of the interview times ranged from 9.5 minutes to 101 minutes, with the average interview length being 40.3 minutes meeting the 40 minute target. In Table 1 we see the distribution of interview times with 65 per cent of the interview around 30 to 49 minutes.

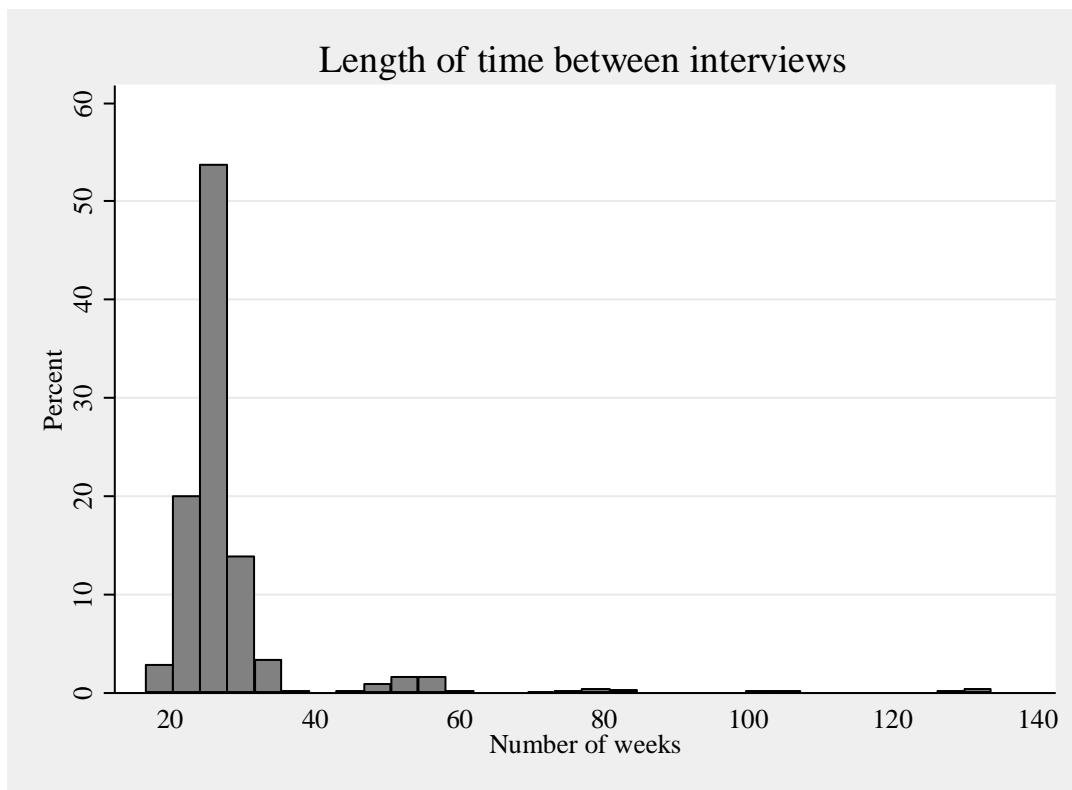
Table 1: Distribution of interview lengths

<i>Length of interview</i>	<i>Proportion (%)</i>	<i>Total (n)</i>
less than 20 minutes	0.7	10
20 to 29 minutes	16.8	236
30 to 39 minutes	37.1	520
40 to 49 minutes	28.6	401
50 to 59 minutes	10.3	144
60 to 69 minutes	4.1	58
70 to 79 minutes	1.6	22
80+ minutes	0.8	11
Total	100.0	1402 (N)

Notes: The four terminated interviews are excluded

Those who participated in wave 6 fieldwork consisted of those who were interviewed in wave 5 and others who had skipped one or more successive interviews. Figure 1 shows the gap between interviews. From the figure we see the number of weeks between the current and previous interview for wave 6 respondents ranges from 16 to 134 weeks. Those who responded in wave 5 fieldwork were interviewed between 16 and 36 weeks and the average gap between interviews is 25.6 weeks (5.9 months). Those who did not respond in wave 5 were interviewed on average 66 weeks later with the gap between interviews ranging from 44 to 134 weeks

Figure 1: Distribution of duration between interviews



3 Response characteristics and rates

As stated earlier, 1,600 sample members were marked for re-approach for an interview. Table 2 summaries the response outcomes. The final sample considered in scope is 1,617. Of those 65 cases considered out of scope 15 were overseas, 25 are deceased, 24 in prison, and one in hospital. In total 1,406 sample members were interviewed (4 terminated their interviews prior completion due to interruptions and the interviews could not be rescheduled or sample member incoherence). This equates to an achievement rate of 83.6 per cent (1,406 out of 1,682) and a response rate of 87 per cent (1,406 out of 1,617). The wave 6 achievement rate exceeded the target of 80 per cent.

Looking at the non-response outcomes, refusals (4.8% of total sample) were the main reason for non-response followed by sample members moving to an unknown address, contact not resulting in an interview and non-contact after all attempts were made to contact sample members. Only a handful could not participate because of incapability (0.2%).

Table 2: Wave 6 fieldwork call outcomes

<i>Sample outcome</i>	<i>Number</i>	<i>% of Total sample</i>	<i>% of In-scope sample</i>
Starting sample (w1 respondents)	1,682		
Less out-of-scope	65	3.9	
Total in-scope sample	1,617	96.1	
Completed interviews	1,402	83.4	86.7
Terminations	4	0.2	0.3
Incapable	4	0.2	0.3
In institution	.	.	.
Refusal	81	4.8	5.0
<i>Other non-response</i>			
Contact made	42	2.5	2.6
Non-contact & all calls made	40	2.4	2.5
Moved to unknown address	44	2.6	2.7

Table 3 summaries the response outcomes in wave 6 by the sample members wave 5 response status. Of those who responded in wave 5 survey 92.7 per cent responded wave 6 interviews. The conversion of non-response to response is 51.3 per cent. Only 11.8 per cent of sample members who were out of scope in wave 5 participated in wave 6. Amongst those

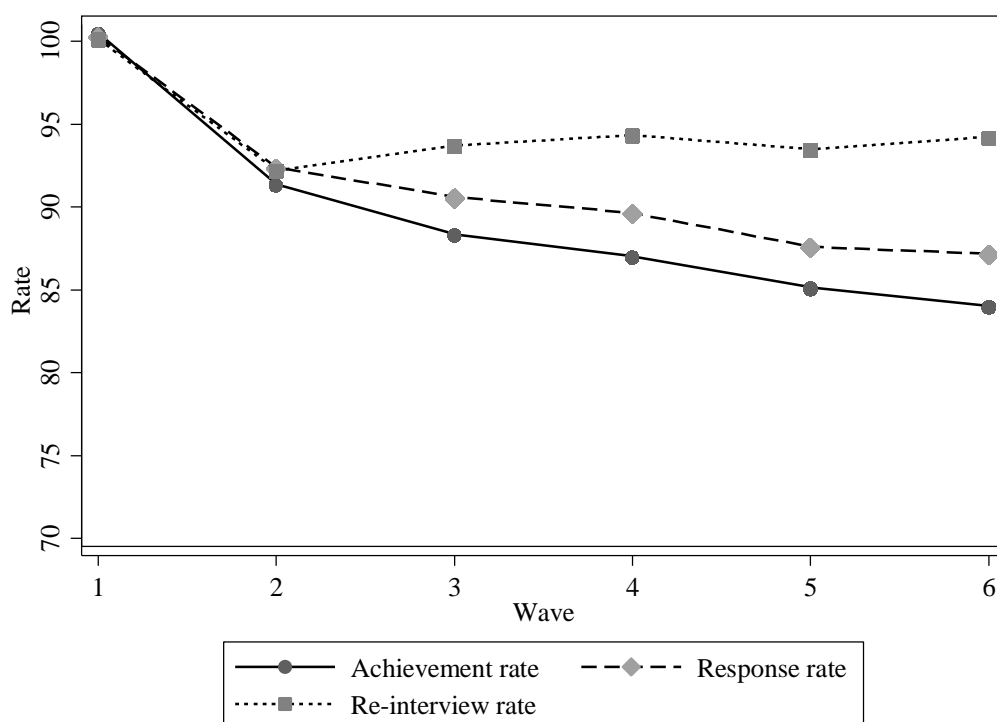
who were contacted in wave 5 but did not participate 57.9 per cent responded in wave 6. Only 8.7 per cent of refusals became respondents in wave 6, with the majority remaining as refusals (85.5%) reflecting those who did not want to be approached for an interview in wave 6.

Table 3: Response transitions for Wave 6

<i>Wave 5 Response Status</i>	Wave 6 Response Status (%)						<i>Total (n)</i>
	<i>Responded</i>	<i>Incapable</i>	<i>Refusal</i>	<i>Contact made - but no response</i>	<i>Other Non-response</i>	<i>Out of scope</i>	
Responded	92.7	0.1	0.8	2.1	2.7	1.5	1,425
Incapable	0.0	100.0	0.0	0.0	0.0	0.0	2
Refusal	8.7	0.0	85.5	0.0	5.8	0.0	69
Contact made-non-response	57.9	0.0	15.8	14.0	12.3	0.0	57
Other non-response	51.3	0.0	1.3	5.1	41.0	1.3	78
Out of scope	11.8	0.0	0.0	0.0	5.9	82.4	51
Total	83.6	0.2	4.8	2.5	5.0	3.9	1,682 (N)

Figure 2 summaries the response outcomes across the six waves. The achievement rates since wave 2 have declined steadily, even with the addition of wave 5 and 6 there is not a clear break in the trend. However, the wave 6 response rate was almost unchanged from wave 5. In wave 5 the response rate was 87 per cent compared to 86.7 per cent in wave 6. This indicates that the decrease in achievement rate between wave 5 and wave 6 are primarily due to the increase in out of scope sample. Also shown in the graph is the re-interview, which is the proportion of people who respond in the current fieldwork period given they responded in the previous fieldwork period and are not out of scope in the current fieldwork period. The re-interview rate increased marginally in wave 6, indicating better retention of previous wave respondents.

Figure 2: Achievement, response and re-interview rate trends



Although the achievement rate is high, the proportion of sample members who answered all preceding waves decreases quite quickly as shown in Table 4. This is because substantial numbers of sample members did not respond to one wave or more and returns to the survey in later waves. The numbers of respondents that skipped at least one preceding wave for wave 3, 4, 5 and 6 are 72 (4.9%), 131 (9.0%), 82 (5.8%) and 85 (6.0%) respectively. The high returning rates are a result of high number of sample members who were temporarily out of scope (in prison or health institutions and overseas) and that the address updates based on Centrelink administrative data enable us to re-establish contact with individuals who we lost contact with in previous waves.

Table 4: Balanced panel sample sizes

<i>Waves responded</i>	<i>Total</i>	<i>Proportion of Wave 1 respondents</i>
<i>Balanced panel</i>		
Wave 1,2 and 3	1406	83.6
Wave 1,2,3 and 4	1325	78.8
Wave 1,2,3,4 and 5	1243	73.9
Wave 1,2,3,4,5 and 6	1174	69.8

Note: Respondents include terminated cases.

3.1 Sample characteristics and response bias

In Table 5 below we first compare the target sample, wave 6 respondents, and wave 6 continuing respondents (those interviewed all waves) based on their wave 1 characteristics. The last two columns report the achievement rates of wave 6 and balanced panel (continuing respondents) based on target samples' wave 1 characteristics. Overall the characteristics of the wave 6 compared to the wave 1 respondents are very similar with only those with dependent children being slightly more, but not significantly, represented (1.2 percentage points higher than wave 1 respondents) in the wave 6 sample. Turning our attention to the wave 6 continuing respondents (responded in all 6 waves), comparing with wave 1 respondents, there are more females (+2 percentage points), people with dependent children (+2.1 percentage points), fewer respondents of indigenous origins (-2.3 percentage points), fewer with less than Year 10 level of education (-1.6 percentage points) represented in the wave 6 continuing respondents than in the wave 1 respondents. However the differences between the continuing respondents and the wave 1 respondents are insignificant.

Table 5: Sample Characteristics

<i>Characteristic</i>	<i>Wave 1 respondents (n=1,682)</i>	<i>Wave 6 respondents (n=1,406)</i>	<i>Wave 6 continuing respondents (n=1,174)</i>	<i>Wave 6 Achievement rate (%)</i>	<i>Wave 6 Continuing respondents Achievement rate (%)</i>
<i>Gender</i>					
Male	54.6	53.9	52.6	82.5	67.1
Female	45.4	46.1	47.4	84.9	73.0
<i>Age group</i>					
15-17	9.5	9.3	10.0	81.9	73.1
18-20	16.6	16.7	16.3	84.2	68.5
21-24	12.6	12.5	12.3	83.0	67.9
25-34	21.7	21.5	20.5	82.7	66.0
35-44	20.0	20.1	20.3	83.9	70.8
45-54	14.0	14.4	15.2	86.4	75.7
55+	5.6	5.5	5.5	81.1	68.4
<i>Indigenous status</i>					
Non-Indigenous	80.3	80.4	82.6	83.7	71.9
Indigenous	19.7	19.6	17.4	83.1	61.4
<i>Marital status</i>					
Single	82.7	82.0	83.1	82.9	70.2
Partnered	17.2	17.9	16.9	86.9	68.3

<i>Characteristic</i>	<i>Wave 1 respondents (n=1,682)</i>	<i>Wave 6 respondents (n=1,406)</i>	<i>Wave 6 continuing respondents (n=1,174)</i>	<i>Wave 6 Achievement rate (%)</i>	<i>Wave 6 Continuing respondents Achievement rate (%)</i>
Unknown	0.1	0.1	.	.	.
<i>Dependent children</i>					
No	80.0	78.8	77.9	82.3	68.0
Yes	19.8	21.0	21.9	88.6	77.2
Unknown	0.2	0.2	0.2	.	.
<i>Country of birth</i>					
Australia	87.5	88.1	88.1	84.2	70.2
Main English Speaking Country	5.8	5.9	6.0	84.7	71.4
Non-main English Speaking Country	6.7	6.0	6.0	75.0	62.5
<i>Education level</i>					
Less than Year 10	20.3	19.8	18.7	81.8	64.5
Year 12	48.6	49.1	49.3	84.5	70.8
Trade certificate or Apprenticeship	21.3	21.4	22.2	83.8	72.7
University	8.6	8.3	8.8	81.3	71.5
Unknown	1.2	1.3	0.9	90.0	55.0
<i>Consented to Centrelink data linkage</i>					
No	6.5	6.3	6.2	80.0	66.4
Yes	93.5	93.7	93.8	83.8	70.0
<i>Benefit type</i>					
Not on IS	9.0	9.2	9.0	71.4	70.2
Newstart Allowance	33.9	33.9	33.5	85.4	68.9
Youth Allowance	19.8	19.6	19.5	83.7	68.8
Disability Support Pension	23.1	22.8	22.7	82.6	68.8
Parenting Payment	10.9	11.3	11.9	82.5	76.5
Other	3.0	2.9	3.0	86.9	70.0
Unknown	0.4	0.4	0.3	82.0	57.1

Notes:

- 1) Achievement rates not reported for cells with less than 15 observations
- 2) The four terminated cases in wave 6 fieldwork are included as respondents.
- 3) Dependent children are those under 18 years old living with the respondent all or most of the time

The fourth column in Table 5 presents the wave 6 achievement rates by wave 1 characteristics. Achievement rates were significantly higher for those who were married/de-facto and those with dependent children. Whilst achievement rates were significantly lower for those who were born in a non-main English speaking country. This may indicate that those from a non-English speaking background face a language barrier in participating in the survey. In the fifth column we present the percent of sample members who responded all 6 waves (i.e. continuing person achievement rate) by their wave 1 characteristics. Achievement rates were significantly higher for females, the non-indigenous and those with dependent children. Again, those who were born in non-English speaking countries were significantly less likely to respond to all 6 waves than their counterparts. There are moderate variations in balanced panel response rate across individuals categorised by other characteristics, such as education and payment types, however the differences are not statistically significant.

In Table 6 we analyse the achievement rates between wave 5 and 6 by geographical area. In Tasmania we see a notable decline in the achievement rate from 97.1 per cent to 90.3 per cent. The decline was due to non-response by sample members despite contact being made. Despite this substantial decline, Tasmania's achievement rate is the highest overall. The achievement rate of those interviewed outside the interview areas improve by 3.4 percentage points.

In metropolitan areas the achievement rate is 87.7 per cent on average, whilst in regional areas it is 84.2 per cent. This difference in the achievement rates between metropolitan and regional areas is statistically significant.

Table 6: Response by geographical region

<i>Geographical area</i>	<i>Wave 5 achievement rate</i>	<i>Wave 6 achievement rate</i>	<i>Difference in achievement rate</i>
Sydney	89.8	89.4	-0.4
Rest of NSW*includes ACT	84.2	81.9	-2.7
Melbourne	85.7	85.0	-0.8
Rest of VIC	88.9	87.9	-1.1
Brisbane	91.7	89.4	-2.5
Rest of QLD	89.0	86.4	-2.9
SA	92.3	89.9	-2.6
WA	85.6	85.6	0.0
TAS	97.1	90.3	-7.0
NT	81.3	83.3	2.5
Outside interview areas	75.5	78.1	3.4
Overseas		0.0	
Unknown		9.1	

3.2 *Item non response*

Respondents are able to choose whether or not to answer questions in relation to experiences of physical and sexual violence in the last six months. The rate of item non-response was low for these questions with 2.8 per cent not answering the questions of experience of physical violence. A further 1.5 per cent (21 out of 1,402) opted not to complete the questions on experiences of sexual violence. As mentioned earlier the wave 6 the survey instrument included numerous additional questions. All the questions and sections had a low item non-response rate.

3.3 *Interviewer observations*

After the completion of an interview, the interviewer gave an assessment of the interview. Interviewers gave responses to questions on problems that may have influenced the respondent's answers. The battery of questions included communication problems, the respondent's understanding of the questions, and willingness to co-operate, health issues that could have been a hindrance and the presence of other people. The majority of respondents (98.9%) were recorded as having an excellent, good or fair understanding of the questions. The level of co-operation was high with 99.5 per cent of respondents being indicated as

having an excellent, good or fair level of co-operation. Very few were recorded as being suspicious of the survey, with only 0.9 per cent of respondents recorded as being somewhat or very suspicious of the survey.

A variety of problems can affect an interview including mental illness, poor eyesight, language problems, reading difficulties, incoherence, confusion and hearing problems. Just over 11 per cent of respondents had one of the problems mentioned above. The main problem was mental illness affecting 2.6 per cent of respondents. Only 2.9 per cent of respondents were considered to have appeared under the influence of alcohol or drugs. However, if alcohol or drugs seemed to significantly impair the respondent's ability to answer the survey the interview would be re-scheduled.

Although Journeys Home survey is an individual based survey, the presence of a third adult during interviews was not prohibited due to practical reasons. Interviewers were asked to assess if the presence of other adults may have affected the respondent's answering of questions. Interviews with the presence of another adult account for 14.6 per cent of the total completed interviews. However, the majority of these interviews (81.4% of the 204 cases), the third person did not appear to influence the respondent's responses.

4 Weighting

Weights are generated to 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 probability of selection into wave 1 sample. The design weight remains unchanged for wave 6.
- Response weight adjusts for the differential probability of response.
- Population weight adjusts for design and response factors.

Details of how the response weight and population weight were created are given below.

4.1 Response Weight

Response weights correct for the differential probability of response among the sample that was activated, excluding individuals who were recorded as deceased prior the last information update provided by Department of Employment (formerly DEEWR) during wave 1 fieldwork (28 October 2011). Two types of response weights are produced. The wave 6 response weight is defined as the wave 1 response weight multiplied by the inverse probability of wave 6 response given response in wave 1:

$$W_{resp}^{wave6} = \frac{W_{resp}^{wave1}}{P(Resp^{wave6} = 1 \mid Resp^{wave1} = 1)}$$

The wave 6 balanced-panel response weight is defined as the wave 1 response weight multiplied by the inverse probability of response to waves 2, 3, 4, 5 and 6 given response in wave 1:

$$W_{resp}^{BPwave6} = \frac{W_{resp}^{wave1}}{P((Resp^{wave2} = 1 \& Resp^{wave3} = 1 \& Resp^{wave4} = 1 \& Resp^{wave5} = 1 \& Resp^{wave6} = 1) \mid Resp^{wave1} = 1)}$$

The probabilities of wave 6 response and of response to waves 2 to 6 are created by estimating logistic regression models with variables from the administrative dataset (RED) extracted on 4 July 2014 and from wave 1 survey data. The probability of response in both models is capped at 0.2. That is the probability of response is set to 0.2 when the predicted probability is lower than 0.2.

The response weights are then rescaled so that the sums of the weights are equal to the size of the responding samples (i.e., 1,174 for response to waves 2 to 6 and 1,406 for wave 6 response).

For the purposes of weighting, a case is considered a ‘response’ if a person is interviewed or has been identified as being overseas or deceased (through either information updates from the Department of Employment or other reliable sources), and a ‘non-response’ is all other outcomes.¹

A complication in estimating the response probabilities is that not all wave 1 respondents provided consent to the Centrelink data linkage. For those who did not provide consent, we can only use either wave 1 survey data or RED data but not both. To fully utilize the available information, four separate models were estimated to obtain the predicted probabilities of response. We first estimate two logistic models using variables derived from RED for the entire sample (n=1,682) to obtain the predicted probabilities of wave 6 response and waves 2 to 6 response for those individuals who did not provide data linkage consent.² Next, variables from wave 1 survey response data are added to the models after restricting the sample to those individuals who provided consent (n=1,654) to obtain the predicted probabilities based on full information.

In general, the explanatory variables in the balanced panel model includes individuals’ information at wave 1 and between wave 1 and 6 and the variables for wave 6 response model includes information at wave 1, start of wave 6 fieldwork and the period between wave 5 and wave 6 interview periods. Variable definitions and summary statistics are presented in Appendix table A1. The following summarises the explanatory variables from RED and survey administration data used in the final model.³

¹ In wave 1, deceased sample members were excluded from the analysis instead of counted as response. It is because initial sample were drawn from income support recipients. Wave 1 survey period is not far from sampling reference period so it is unlikely that sample members moved off income support prior the time of death. Therefore, we assume all deaths were known and thus excluded from the analysis. However, in subsequent waves, the same assumption is unlikely to hold (there may be some sample members who passed away after moving off income support and therefore their death may not be captured in Centrelink data base). To allow for this uncertainty, death is counted as response in the logistic regression model.

² We compared regression results from survey data only model and RED only model. RED only model has better explanatory power and therefore was applied for the non-consent cases.

³ Many other variables were also tested that can potentially explain the response, such as education, mental health, etc. Due to the small number of non-response observations, inclusion of too many variables may run into degree of freedom problem and yield to results where many variables have large coefficients and large standard errors. As a result the final model only includes basic demographic variables and variables that are statistically

- demographic variables;
- proportion of time on income support in between wave 1 and wave 6 and in between wave 5 and wave 6;
- personal characteristics while on income support, which include:
 - living arrangement (type of accommodation);
 - proxies of the likelihood of contacting Centrelink;
- whether the individual was ever recorded as an ex-offender (since 1998) and whether the record was recent (i.e. after wave 2 interview period);
- whether the individual is assigned an interviewer that is different from the previous wave and whether the interviewer is a new interviewer to the survey;
- geographical area at start of the survey periods of waves 2 to 6 (three categories are distinguished— within survey clusters in major capitals, within clusters in regional area, or outside survey clusters)

Explanatory variables from survey response data include:

- homeless status at wave 1 interview;
- whether a mobile phone number was provided by respondent at wave 1 interview;
- wave 1 interview length.

Table 7 presents results of two logistic regressions for the probability of response to waves 2, 3, 4, 5 and 6 (i.e. balanced-panel model). As noted above, one uses administrative data (RED) only while the other uses both RED and survey data. Similarly, Table 8 presents results of two logistic regressions for the probability of response to wave 6 only. The results in Tables 7 and 8 show a large degree of consistency. Although not all control variables are significant in both tables, those that are significant in both tables are of the same sign and there is a large degree of consistency with the results for the probability of response to previous waves (see Wave 2, 3, 4 and 5 Technical Reports). The results are summarised as follows:

significant at 10 per cent (with only a couple of exceptions) to avoid introducing large amount of noise in the probability estimates.

- Demographics do not play a large role. Only those between 21 and 24 years of age and indigenous Australians/Torres Strait Islanders are less likely to respond to waves 2 to 6, while non-English speaking migrants are less likely to respond to wave 6.
- Those on income support 100 per cent of the time between interview periods and those who were in contact with Centrelink are more likely to respond.
- Those who were recorded as ex-offender, and more particularly those who were recently recorded as ex-offender, are less likely to respond.
- Not being in the rent tables increases the response probability in the balanced-panel model. Those who are not in the rent tables are those who did not apply for rent assistance. They may be home owners or have other living arrangements that do not require rent assistance. Hence, they are more likely to have stable housing and are more likely to respond.
- Those who were outside interview regions in at least one wave are less likely to respond to waves 2 to 6, whereas those who moved but always stayed in the interview regions and those who stayed in a major capital city are more likely to respond. This is in comparison to those who were in regional areas in all waves (the reference group). Likewise, those who were outside the interview regions are less likely to respond to wave 6.
- The more often one is assigned a different (continuing) interviewer, the less likely one is likely to respond. However, being assigned to one of the new interviewers increases response probabilities.
- Those who were homeless in wave 1 (according to survey data) are less likely to respond (Table 7), whereas those who provided mobile phone contact are more likely to respond.
- Those who had a relatively long interview (more than 80 minutes) in wave 1 are more likely to respond to waves 2 to 6.

Table 7: Logistic regression results for probability of response in all of waves 2 to 6

<i>Variable</i>	<i>Administrative data model</i>		<i>Survey and administrative data model</i>	
	<i>Coeff.</i>	<i>Std. Err.</i>	<i>Coeff.</i>	<i>Std. Err.</i>
Female	-0.075	0.141	-0.135	0.145
Indigenous	-0.425**	0.160	-0.391*	0.164
<i>Country of birth (Australia)</i>				
Main English speaking countries	-0.197	0.282	-0.325	0.284
Other non-main English speaking countries	-0.393	0.252	-0.350	0.264
<i>Age (15-20)</i>				
21-24	-0.646**	0.222	-0.670**	0.225
25-34	-0.200	0.221	-0.199	0.226
35-44	-0.153	0.237	-0.180	0.243
45-54	-0.200	0.253	-0.146	0.263
55+	-0.059	0.322	0.098	0.332
Always on Income Support between wave 1 and 6 fieldwork	0.597**	0.146	0.586**	0.150
Recent ex-offender (incarcerated)	-0.902**	0.281	-0.954**	0.290
Ever an ex-offender (incarcerated)	-0.650**	0.184	-0.610**	0.189
Contact with Centrelink between wave 1 and 6	0.320*	0.155	0.275#	0.159
<i>Rent payment type between wave 2 and 6 (private or government)</i>				
Other type	-0.067	0.191	0.022	0.196
Not in rent table	0.691*	0.336	0.543	0.341
Changed rent type	0.074	0.170	0.126	0.174
<i>Geographical location at start of wave 2 to 6 (Regional area all waves)</i>				
Major capital city all waves	0.367*	0.173	0.303#	0.178
Outside interview region at start of any wave	-0.830**	0.163	-0.892**	0.167
Changed location within interview regions	0.407	0.344	0.323	0.350
<i>Change in interviewer (No change)</i>				
Change in 1 wave	-1.128**	0.210	-1.170**	0.213
Change in 2 waves	-2.048**	0.212	-2.042**	0.216
Change in 3 waves	-2.542**	0.240	-2.571**	0.244
Change in 4 or more waves	-3.005**	0.307	-2.964**	0.312
New interviewer in at least one wave	1.357**	0.179	1.396**	0.184
Homeless at wave 1 interview			-0.419**	0.155
Provided mobile phone contact at wave 1 interview			0.483**	0.176

<i>Variable</i>	<i>Administrative data model</i>		<i>Survey and administrative data model</i>	
	<i>Coeff.</i>	<i>Std. Err.</i>	<i>Coeff.</i>	<i>Std. Err.</i>
<i>Interview length (40 to 79 minutes)</i>				
Less than 30 minutes			-0.697	0.550
30 to 40 minutes			0.031	0.229
80+ minutes			0.379#	0.206
Constant	2.444**	0.338	2.184**	0.379
Sample size		1682		1654
Log-likelihood		-773.682		-747.458

p<0.10, * p<0.05, ** p<0.01

Table 8: Logistic regression results for probability of response in wave 6

<i>Variable</i>	<i>Administrative data model</i>		<i>Survey and administrative data model</i>	
	<i>Coeff.</i>	<i>Std. Err.</i>	<i>Coeff.</i>	<i>Std. Err.</i>
Female	0.060	0.152	0.055	0.154
Indigenous	-0.023	0.188	0.005	0.193
<i>Country of Birth (Australia)</i>				
Main English speaking countries	0.035	0.339	-0.030	0.340
Other non-main English speaking countries	-0.716**	0.259	-0.782**	0.264
<i>Age (15-20)</i>				
21-24	0.030	0.243	-0.028	0.246
25-34	0.231	0.239	0.238	0.244
35-44	0.195	0.247	0.120	0.249
45-54	0.199	0.269	0.297	0.279
55+	0.476	0.363	0.509	0.366
Always on Income Support between wave 5 and 6 fieldwork	0.900**	0.159	0.896**	0.162
Ever an ex-offender (incarcerated)	-0.762**	0.241	-0.708**	0.249
<i>Geographical location (Regional area)</i>				
Major Capital city	0.155	0.172	0.116	0.175
Outside interview regions	-0.745**	0.196	-0.822**	0.201
Contact with Centrelink between wave 5 and 6	0.325#	0.191	0.364#	0.195
Changed interviewer	-0.267	0.176	-0.330#	0.179
Provided mobile phone contact at wave 1 interview			0.388*	0.194
Constant	1.263**	0.254	1.020**	0.302
Sample size	1682		1654	
Log-likelihood	-642.913		-623.054	

p<0.10, * p<0.05, ** p<0.01

4.2 Population Weight

The wave 6 population weight is the wave 1 population weight adjusted for the probability of response in wave 6, while the wave 6 balanced-panel weight is the wave 1 population weight adjusted for the probability of response in waves 2 to 6. That is, the wave 1 population weight is multiplied by the inverse probability of responding in wave 6 (or in waves 2 to 6 for the balanced-panel weight), with group specific rescaling factors so that the sum of the weights across all cases that had an acceptable outcomes in each of the ‘homeless’, ‘at-risk’ and

‘vulnerable’ group equals the size of population in that group. The acceptable outcomes include all respondents, persons overseas during the survey period or persons deceased after 28 October 2011. The population here refers to the initial Journeys Home population in clusters that were not undersize (i.e., Journey Home survey population) excluding those who were deceased prior 28 October 2011.⁴ The size of population 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 wave 6 responding sample is 106,914 (‘homeless’ 21,911; ‘at-risk’ 12,799; ‘vulnerable’ 72,204). The sum of the weights for the responding balanced-panel sample is 106,041 (‘homeless’ 22,019; ‘at-risk’ 12,571; ‘vulnerable’ 71,451).

We also include another population weight in the data set — the population weight rescaled so the sum of the weights equals the size of the responding sample (i.e., 1,406 for wave 6 and 1,174 for the balanced panel).

4.3 On the use of weights

Wave 6 weights should be used when the analysis focuses on wave 6 only (or wave 1 and wave 6 as all wave 6 respondents also responded wave 1). More generally, wave-specific weights are designed to be used when the analysis focuses on one particular wave or wave 1 and that specific wave (as we only follow wave 1 respondents), whereas for balanced-sample analyses, it is recommended to use the balanced-panel weights.

As mentioned earlier, response weights adjust for the differential probability of response but not taking into account the design factors, while population weights account for both differential response and sampling probabilities. Population weights should be used to derive population-representative statistics. However, it is important to keep in mind that the population here refers to the Journey Home survey population only, not the Australian population or income support population. The Journeys Home population is a very specific group of income support recipients that were flagged by Centrelink as homeless or at risk of homelessness as of May 2011 or in a vulnerable group defined by the Melbourne Institute. The vulnerable group were those who were not flagged by Centrelink and the predicted probability of being flagged was at top 2 per cent among all income support recipients. See

⁴ To be eligible for inclusion in the final sample of Journey Home survey, a cluster in a major city had to have at least 45 flagged persons (that is, persons flagged as either homeless or at risk) and a cluster in a regional or rural centre at least 65 flagged persons. More details on the sample design is described in the Journey Home wave 1 technical report.

Wooden *et al.* (2012) or Wave 1 Technical Report for further details on the definition of Journeys Home population.

Also note that the population weights for sample in the vulnerable group are much higher than those in the other two groups because of the low sampling rate (much lower than the other two groups). If a researcher would like the statistics to be influenced more evenly from the three groups, one may like to consider using the response weight or re-scale the population weight by group-specific scaling factors using the sum of population by 'homeless', 'at-risk' and 'vulnerable' groups listed in section 4.2 to lower the effects of the unequal sampling rate.

5 References

Wooden, M., Bevitt, A., Chigavazira, A., Greer, N., Johnson, G., Killackey, E., Moschion, J., Scutella, R., Tseng, Y., Watson, N. (2012) 'Introducing Journeys Home', *Australian Economic Review*, 45(3): 368-78.

6 Appendix

Table A1

		All Sample (n=1682)		Sample that gave data linkage consent (n=1654)	
Variable	Categories	Frequency (n)	Proportion (%)	Frequency (n)	Proportion (%)
Gender	Male	919	54.6	901	54.5
	Female	763	45.4	753	45.5
Indigenous status	No	1350	80.3	1325	80.1
	Yes	332	19.7	329	19.9
Country of birth	Australia	1472	87.5	1449	87.6
	Main English Speaking Country (these include UK, Ireland, Canada, New Zealand, USA and South Africa)	98	5.8	97	5.9
	Non-main English Speaking Country	112	6.7	108	6.5
Age category reported at wave 6 interview	18-20	247	14.7	246	14.9
	21-24	303	18.0	301	18.2
	25-34	384	22.8	378	22.9
	35-44	353	21.0	344	20.8
	45-54	266	15.8	259	15.7
	55+	129	7.7	126	7.6
Always on Income support between middle of wave 1 to the middle of wave 6	No	727	43.2	713	43.1
	Yes	955	56.8	941	56.9
Always on Income support between middle of wave 5 to the middle of wave 6	No	466	27.7	424	25.6
	Yes	1216	72.3	1230	74.4

		All Sample (n=1682)		Sample that gave data linkage consent (n=1654)	
Variable	Categories	Frequency (n)	Proportion (%)	Frequency (n)	Proportion (%)
Recent ex-offender That is released from prison between midpoint of wave 1 fieldwork to midpoint of wave 6 fieldwork	No	1562	92.9	1538	93.0
	Yes	120	7.1	116	7.0
Ever ex-offender. That is ever been prison prior to wave 1 up to the middle of wave 6 fieldwork	No	1306	77.6	1288	77.9
	Yes	376	22.4	366	22.1
Rent payment type at start of wave 2 fieldwork and start of wave 6 fieldwork	Private or government	367	21.8	360	21.8
	Other type (includes: Mooring fees, site fees, Other housing organisation, net rent being assessed, lodgings and other	447	26.6	440	26.6
	Not in rent table	111	6.6	108	6.5
	Changed rent type	757	45.0	746	45.1
Had contact with Centrelink between the middle of wave 1 and the middle of wave 6 fieldwork	None	667	39.7	653	39.5
	Contact	1015	60.3	1001	60.5
Change in geographical location between wave 2 and 6, measured at the start of fieldwork for wave 2 and start of wave 6 fieldwork	Regional area both waves	646	38.4	541	32.7
	Major capital city both waves	658	39.1	553	33.4
	Outside interview region at the start of either	331	19.7	502	30.4

		All Sample (n=1682)		Sample that gave data linkage consent (n=1654)	
Variable	Categories	Frequency (n)	Proportion (%)	Frequency (n)	Proportion (%)
	Changed location between waves but never outside interview regions	47	2.8	58	3.5
Change in interviewer between wave 2 and 6. This is a change to different interviewer, that is one who has done wave 1 interviews.	No Change	414	24.6	408	24.7
	Change in one wave	548	32.6	542	32.8
	Change in two waves	416	24.7	406	24.5
	Change in three waves	220	13.1	216	13.1
	Change in four or more waves	84	5.0	82	5.0
New interviewer. If respondent has been interviewed by an interviewer who did not do interviews during wave 1 fieldwork	No	1322	78.6	1297	78.4
	Yes	360	21.4	357	21.6
Homeless status. Homeless status derived from wave 1 survey data, using the Melbourne Institute definition ¹ . Any classified as primary, secondary or tertiary homeless under the Melbourne Institute homeless definition is in the homeless category.	Not Homeless	1286	76.5	1261	76.2
	Homeless	396	23.5	393	23.8
Length of wave 1 interview. The cut points were derived by taking the points that were 1 and 2 standard deviations from the mean.	less than 30 minutes	18	1.1	18	1.1
	30 to 40	159	9.5	155	9.4
	40 to 80	1304	77.5	1281	77.4
	80+	201	12.0	200	12.1

		All Sample (n=1682)		Sample that gave data linkage consent (n=1654)	
Variable	Categories	Frequency (n)	Proportion (%)	Frequency (n)	Proportion (%)
Had contact with Centrelink between the middle of wave 5 and the middle of wave 6 fieldwork	No	1349	80.2	1325	80.1
	Yes	333	19.8	329	19.9
Assigned to a different interview for wave 6 fieldwork. A change in the interviewer excludes those re-assigned to team 1800.	Kept the same interviewer at the start of wave 4	1242	73.8	1228	74.2
	Re-assigned to different continuing interviewer	440	26.2	426	25.8
Rent payment type at the start of wave 6 fieldwork	Private	622	37.0	609	36.8
	Government	363	21.6	359	21.7
	No rent	135	8.0	134	8.1
	Other (includes: Mooring fees, site fees, Other housing organisation, net rent being assessed and other)	352	20.9	348	21.0
	Not in rent table	210	12.5	204	12.3
Provided mobile number in wave 1	No	283	16.8	274	16.6
	Yes	1399	83.2	1380	83.4