



Employment outcomes for families and carers of NDIS participants

Summary report

As at 31 December 2020

ndis

1. Definitions

This section explains key terms used throughout the report, such as Short Form and Long Form outcomes framework questionnaires, baseline and longitudinal experience, labour force measures, and other government benefits.

2. Employment experience for families and carers of NDIS participants: Baseline

This section summarises the baseline employment experience for families and carers of NDIS participants by key characteristics, such as the health and age of the carer, their relationship to the participant, and geography, and summarises the most important drivers found from multiple regression modelling.

3. Centrelink carer benefits

This section investigates the utilisation of Carer Payment and Carer Allowance benefits, based on Centrelink data, by carers of NDIS participants.

4. Employment experience for families and carers of NDIS participants: Trend

This section analyses trends in the employment experience of families and carers of NDIS participants. Key drivers of employment success are investigated.

Definitions

Key terms

Outcomes framework questionnaires: Surveys designed to measure the progress of participants and their families and carers, across different life domains. Work is one of the domains for participants aged 15 and over.

Short Form questionnaire (SF): The Short Form questionnaire is completed by all participants, and a family member or carer where possible. It contains questions useful for planning, as well as key indicators to monitor and benchmark over time.

Long Form questionnaire (LF): The Long Form questionnaire is completed by a subset of participants, and a family member or carer where possible. It includes some additional questions allowing more detailed investigate of participant and family/carer experience, for monitoring and benchmarking.

Baseline experience: Baseline experience for participants and families/carers is measured when participants first enter the NDIS, before the NDIS has had an opportunity to influence outcomes.

Longitudinal experience: Longitudinal experience for participants and families/carers is measured by tracking their responses to the outcomes framework questionnaires at baseline and each subsequent plan review. Following the same group of participants over time allows changes in outcomes to be investigated.

Carer Payment: An income replacement benefit for carers who are unable to work in substantial paid employment because they provide full-time daily care for someone with a severe long-term disability or illness, or someone who is frail aged. Carer Payment is subject to income and assets tests.

Carer Allowance: An income supplement available to carers who provide daily care for someone with a long-term disability or medical condition, or someone who is frail aged. Carer Allowance has been subject to an income test since 20 September 2018.

Labour force: Includes all employed and unemployed persons in the population, where “unemployed persons” are those who are not employed and who are actively looking for work.

Labour force participation rate: The percentage of the population which is in the labour force.

Unemployment rate: The percentage of the labour force which is unemployed.

Employment to population ratio: The percentage of the population which is employed.

Employment experience for families/carers of NDIS participants: Baseline Summary by participant age cohort: working in a paid job

Variable	Percentage working in a paid job, families/carers of participants aged:		
	0 to 14	15 to 24	25 and over
Overall	46%	51%	37%
Relationship to participant	Mother 45% Father 70% Other relationship 31%	Mother 52% Father 60% Other relationship 31%	Mother 27% Father 30% Spouse/partner 46% Sibling 52% Other relationship 38%
Carer self-rated health	Excellent 58% Fair 40% Poor 29%	Excellent 72% Fair 41% Poor 28%	Excellent 58% Fair 28% Poor 16%
Participant housing type	Owned 56% Privately rented 38% Public housing 15%	Owned 59% Privately rented 44% Public housing 18%	Owned 40% Privately rented 35% Public housing 24%
Carer age at Scheme entry	Increases up to age 40 then declines	Increases up to age 55 then declines	Increases up to age 55 then declines
Geography	All participant age cohorts: respondents in Major Cities , especially metro Sydney, are the most likely to be in a paid job		

Employment experience for families/carers of NDIS participants: Baseline Summary by participant age cohort: hours worked, permanent vs casual, and industry of employment

Indicator	Families/carers of participants aged:		
	0 to 14	15 to 24	25 and over
	43%	53%	58%
Of those in a paid job, % working 30 or more hours per week	State/Territory: Respondents in NT and ACT (57%) are most likely to work 30+ hours per week, and those in TAS (33%) are least likely.	State/Territory: For participants aged 15 and over, respondents in NT (68%) and ACT (66%) are most likely to work 30+ hours per week, and those in TAS (48%) are least likely.	
	78%	75%	77%
Of those in a paid job, % employed on a permanent basis	Carer age: permanent employment increases from 63% for age under 25 to 80% for 40-44, then to 84% for age 60+.	Carer age: there is a decrease in permanent employment after age 55, to 75% for age group 60-64, and 65% for 65+.	
	At the start of the COVID-19 pandemic , the percentage of family/carers (all age cohorts) working in a paid permanent position increased by around 4% between 2019/20 Q3 and 2019/20 Q4, with a corresponding reduction in casual employment.		
Of those in a paid job, % working in education-related industry¹	10% (10% for mothers, 4% for fathers)	11% (13% for mothers, 5% for fathers)	8% (11% for mothers, 7% for spouse/ partners, 4% for fathers)

¹ Australian population figures are 13% for females and 5% for males: www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed-quarterly/latest-release

Employment experience for families/carers of NDIS participants: Baseline Summary by participant age cohort: working as much as wanted, and barriers

Indicator	Families/carers of participants aged:		
	0 to 14	15 to 24	25 and over
	52%	56%	56%
Of those in a paid job, % able to work as much as they want	There has been an increasing trend in the percentage able to work as much as they want since 2018/19 Q3, and this trend continued after the start of the COVID-19 pandemic.	At the start of the COVID-19 pandemic, between 2019/20 Q3 and 2019/20 Q4, the percentage of family/carers able to work as much as they want increased by 4%, from 54% to 58%.	
Of those NOT able to work as much as they want, barriers are:			
% saying disability of child/participant	85%	89%	85%
% saying insufficient job flexibility	29%	24%	18%
% saying lack of job availability	8%	7%	5%
	State/Territory: Families and carers of participants living in TAS are the most likely to say lack of available jobs is a barrier (13%) and those in ACT are least likely (3%).	State/Territory: Families and carers of participants in NT (9%) are most likely to say lack of available jobs is a barrier and those in ACT are least likely (2%).	

Employment experience for families/carers of NDIS participants: Baseline Regression modelling

Families/carers are asked the yes/no question “Are you currently working in a paid job?”. Logistic regression modelling has been used to investigate factors associated with having a paid job at baseline (that is, when the participant entered the Scheme).

Variable importance

Given the wealth of baseline data, many of the factors investigated are statistically significant in the models. The concept of variable importance can be used to explain which drivers have the biggest impact on employment outcomes in the population of family/carers of participants.

When considering how predictive a factor is to the family/carer population, rather than at an individual level, the relative prevalence of the factor needs to be considered. For example, whilst a family/carer studying part-time is a significant predictor of having a paid job at an individual family/carer level, its significance at a family/carer population level diminishes due to the low prevalence rate – only 6.7% of the family/carers of participants aged from birth to age 14 were studying part-time at baseline. Therefore, it has only a moderate influence on overall family/carer employment outcomes.

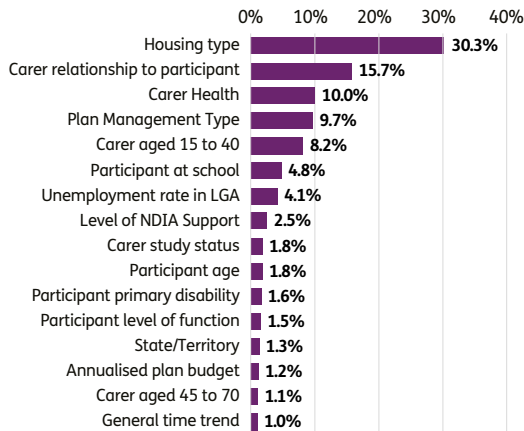
In the next few slides, we present the top five most important and statistically significant drivers in each of the baseline models. For example, for families/carers of participants aged 0 to 14, housing type is the most important predictor, with a relative importance of 30.3%. Informally, this means that housing type accounts for 30.3% of the total improvement in predictive power attributable to the set of variables included in the model.¹

¹ More formally, variable importance is quantified through Gradient Boosting Machines (GBM), a well-developed machine learning method. The GBMs are calibrated on the modelling dataset and the predictors are restricted to all the statistically significant predictors from the multiple linear regression models. The (relative) variable importance for a predictor is the ratio of the reduction in loss function due to that predictor, divided by the total reduction in loss function due to all the predictors. The loss function quantifies the “cost” of prediction errors. Note that while variable importance is indicative of the relative importance of a predictor within one model, it is not **comparable across models**.

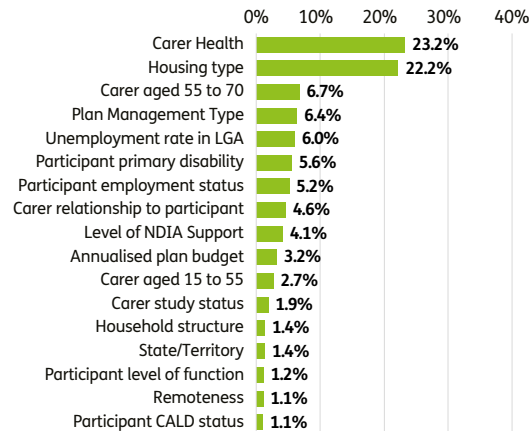
Employment experience for families/carers of NDIS participants: Baseline

Having a paid job – variable importance¹

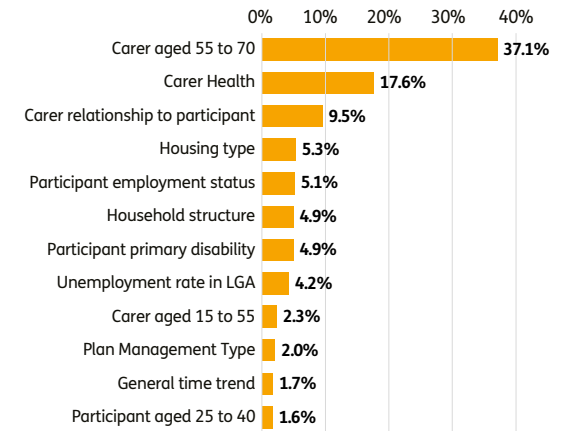
Participant age 0 to 14



Participant age 15 to 24



Participant age 25 and over



Families/carers of participants aged:

0 to 14

Participant school attendance is a significant factor for family/carers of participants age 0 to 14

Housing type, reflecting socio-economic status, is the most important variable for families/carers of participants aged 0 to 14

15 to 24

Participant employment status is significant for older ages in predicting employment

Carer health is the most important variable for families/carers of participants aged 15 to 24, with housing type almost as important

25 and over

Carer age is the most important variable for families/ carers of participants aged 25 and over

In general (i.e. across all age groups), **carer related variables**, e.g. carer relation to participant, carer self-rated health, and carer age, are the most predictive of being in a paid job

¹ Note that only variables with an importance of greater than or equal to 1.0% are shown in the graph above. For each age cohort, the remaining variables account for 3.4%, 2.2%, and 4.0%, for the 0 to 14, 15 to 24, and 25 and over age groups, respectively.

Employment experience for families/carers of NDIS participants: Baseline

Top drivers of being in a paid job

Participants aged 0 to 14

Drivers with a significant **positive** impact on paid job status among variables of top 5 importance:

- ↑ Participant lives in a private home owned by themselves or their family¹
- ↑ Self-rated health is “Excellent” or “Very Good”²
- ↑ Plan is self-managed (fully or partly), or managed by a plan manager³
- ↑ Increasing family/carer age up to 40

Drivers with a significant **negative** impact on paid job status among variables of top 5 importance:

- ↓ Respondent is the mother of the participant
- ↓ Self-rated health is “Fair” or “Poor”²

¹ Family/carers of participants in all other housing types are significantly less likely to be in a paid job.

² Compared to “Good”.

³ Compared to Agency-managed.

Employment experience for families/carers of NDIS participants: Baseline

Top drivers of being in a paid job

Participants aged 15 to 24

Drivers with a significant **positive** impact on paid job status among variables of top 5 importance:

- ↑ Self-rated health is “Excellent”¹
- ↑ Participant lives in a private home owned by themselves or their family²
- ↑ Plan is self-managed (fully or partly), or managed by a plan manager³

Drivers with a significant **negative** impact on paid job status among variables of top 5 importance:

- ↓ Increasing family/carer age above 55
- ↓ Local Government Area (LGA) unemployment rate is higher

¹ Family/carers with all lower health ratings (“Very good” to “Poor”) are significantly less likely to be in a paid job than those with “Excellent” health.

² Family/carers of participants in all other housing types are significantly less likely to be in a paid job.

³ Compared to Agency-managed.

Employment experience for families/carers of NDIS participants: Baseline

Top drivers of being in a paid job

Participants aged 25 and over

Drivers with a significant **positive** impact on paid job status among variables of top 5 importance:

- ↑ Self-rated health is “Excellent”¹
- ↑ Participant lives in a private home owned by themselves or their family²
- ↑ Participant is in a paid job, or is not in a paid job but would like one³

Drivers with a significant **negative** impact on paid job status among variables of top 5 importance:

- ↓ Increasing family/carer age above 55
- ↓ Respondent is the mother of the participant

¹ Family/carers with all lower health ratings (“Very good” to “Poor”) are significantly less likely to be in a paid job than those with “Excellent” health.

² Family/carers of participants in all other housing types are significantly less likely to be in a paid job.

³ Compared to not in a paid job and does not want one.

Linkage results for NDIS family/carers: Overall

According to the Centrelink data linkage, as at 31 December 2020:

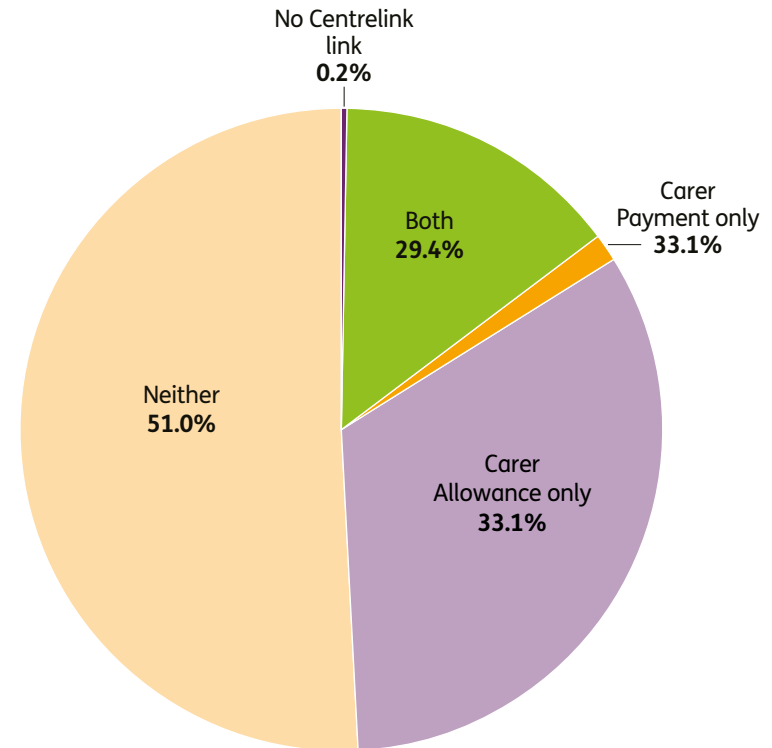
– 15.7% of family/carers were receiving Carer Payment

– 47.4% of family/carers were receiving Carer Allowance

– 14.3% of family/carers received both

– 51.0% of family/carers received neither

– 0.2% of family/carers were unable to be linked in the Centrelink data



Centrelink carer benefits Snapshot based on active plans as at 31 December 2020

Across participant age groups, **mothers** are more likely¹ to receive carer benefits. In the case of participants aged 15 and over, spouses/partners are most likely.

Very few families/carers received the **Carer Payment** alone.

COVID-19 has had little impact on carer benefit receipt.

Families and carers:

- **working shorter hours** are more likely to receive Carer Payment
- of the **0 to 14 age group** are on average about 1.7 times more likely² to receive **Carer Allowance**
- of participants with **lower levels of function** are more likely to receive Carer Payment and/or Carer Allowance

Indicator		Families/carers of participants aged:		
		0 to 14	15 to 24	25 and over
One-way	% receiving Carer Payment	13.3%	20.0%	17.5%
	% receiving Carer Allowance	58.9%	38.8%	34.2%
Two-way	% receiving both	13.2%	13.1%	16.3%
	% receiving Carer Payment only	0.04%	6.9%	1.2%
	% receiving Carer Allowance only	45.7%	25.7%	17.9%
	% receiving neither	40.9%	54.1%	64.3%
	% without a Centrelink link	0.1%	0.2%	0.3%

¹ Compared to fathers

² Compared to families/carers of the 15 and over group

Employment experience for families/carers of NDIS participants: Trend

Section summary

In this section, trends in the employment experience of families and carers of NDIS participants are summarised in the following subsections:

4.1

Longitudinal results summary

A summary of family/carer employment status over time in Scheme by participant age cohort

4.2

Employment status transitions

A summary of one-year transition rates between employment states, including transitions from baseline to first review, first to second review, second to third review, and third to fourth review

4.3

Drivers of employment success

A discussion of the insights from statistical modelling about the drivers of employment success for families and carers of NDIS participants

4

4.1 Key highlights

Longitudinal experience (1)



The **longitudinal employment experience** for families and carers of participants under 15 tends to be more positive than for families and carers of participants aged 15 and over.

Change in paid employment since baseline for families/carers of participants aged:		
Time in scheme	0 to 14 ¹	15 and over ²
4 years	↑ 8.0%	↓ 1.4%
3 years	↑ 5.8%	↑ 1.3%
2 years	↑ 2.5%	↑ 0.2%
1 year	↑ 1.6%	↑ 0.2%

Analysis of transition rates between employment states* shows:

- The rates of maintaining employment are higher for permanent than for casual positions.
- Within each type of employment (casual/permanent), families/carers of participants aged 15 and over are more likely to maintain employment than families/carers of participants aged under 15.

* There are three employment states included in the transition rates analysis: (1) Paid job – permanent; (2) Paid job – casual; (3) Not in a paid job.

¹ All of these changes are statistically significant (McNemar’s test at the 0.05 level).

² None of these changes is statistically significant (McNemar’s test at the 0.05 level).

4

4.1 Key highlights

Longitudinal experience (2)



Transition models have been used to identify key drivers of having a paid job at time $t+1$, conditional on information available (including job status) at time t . Four separate models have been fitted depending on job status and participant age at time t :

Finding a job		Keeping a job	
1	Families/carers of participants aged 0 to 14 who don't have a paid job at time t	3	Families/carers of participants aged 0 to 14 who have a paid job at time t
2	Families/carers of participants aged 15 and over who don't have a paid job at time t	4	Families/carers of participants aged 15 and over who have a paid job at time t

For example, model 1 looks at drivers of having a paid job at the start of the next review, for families and carers of participants aged 0 to 14, who say they don't have a paid job at time t .

The definition of employment success is consistent across the four groups, namely, working in a paid job at the start of next review ($t+1$).

4

4.1 Key highlights

Longitudinal experience (3)



Finding a job

Five most important drivers:

Rank	Families/carers of participants aged 0 to 14	Families/carers of participants aged 15 and over
1	Housing type: families/carers of participants living in public housing or privately rented accommodation are less likely to find a paid job than those of participants living in privately owned accommodation	Family/carer age: the likelihood of finding a job decreases beyond age 45
2	Whether the carer is studying: families/carers who are studying are more likely to find a job at the next review	Whether the carer is studying: families/carers who are studying are more likely to find a job at the next review
3	Family/carer self-rated health: those with better health are more likely to find a job	Participant age: there is a decreasing likelihood of finding a job up to participant age 45, then an increasing likelihood up to age 60
4	Participant level of NDIA support: families/carers of participants with high/very high levels of NDIA support are less likely to find a job	Relationship with participant: fathers are more likely to find a job than mothers
5	Plan management type: families/carers of participants with self-managed plans (partly or fully) and those using a plan manager are more likely to find a job	Housing type: families/carers of participants living in public housing are less likely to find a paid job than those of participants living in privately owned accommodation

4

4.1 Key highlights

Longitudinal experience (4)



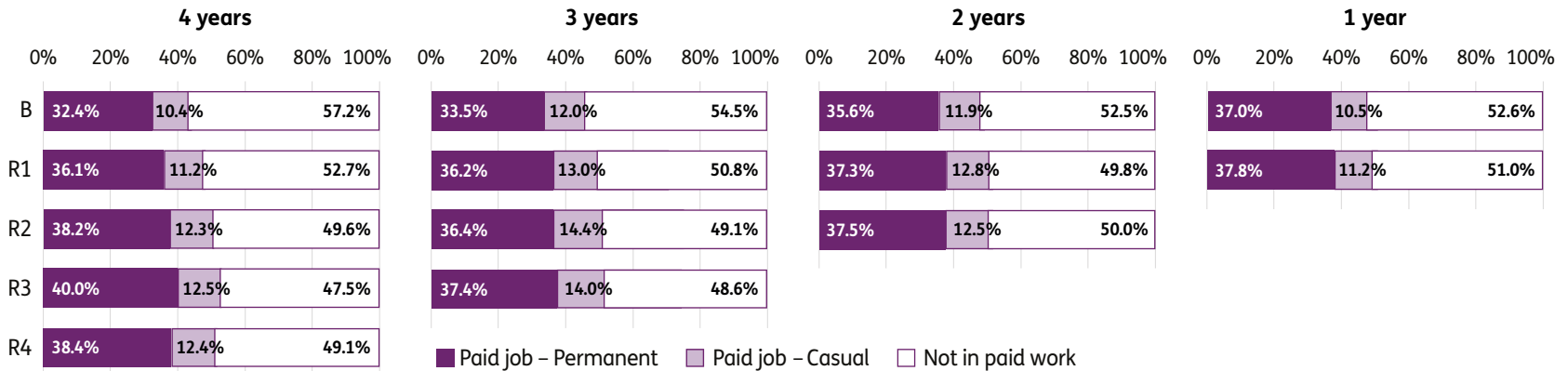
Keeping a job

Five most important drivers:

Rank	Families/carers of participants aged 0 to 14	Families/carers of participants aged 15 and over
1	Housing type: families/carers of participants living in public housing or privately rented accommodation are less likely to keep a paid job than those of participants living in privately owned accommodation	Family/carer age: the likelihood of keeping a job increases up to age 45 then decreases beyond age 45
2	Relationship with participant: fathers and people who are not parents of the participant are less likely to keep a job than mothers	Relationship with participant: mothers are more likely to keep a job than carers with most other relationships to the participant
3	Family/carer self-rated health: those with better health are more likely to keep a job	Family/carer self-rated health: those with “Poor” or “Fair” health are less likely to keep a job than those with “Good” health
4	Family/carer age: the likelihood of keeping a job increases to age 50, then declines	Housing type: families/carers of participants living in public housing or privately rented accommodation are less likely to find a paid job than those of participants living in privately owned accommodation
5	Participant social/community participation: families/carers of participants engaged in social/community activities are more likely to keep a job	Participant employment status: families/carers of participants who have a paid job are more likely to keep their job

Are you currently working in a paid job?

Families/carers of participants aged 0 to 14



For participants in the Scheme for four years, the percentage of families/carers with a paid job increased by 8.0% (6.0% for permanent and 2.0% for casual), from 42.8% at baseline to 50.9% at fourth review. There was a corresponding reduction of 8.0% in the percentage not in paid work, from 57.2% to 49.1%.

For participants in the Scheme for three years, the percentage of families/carers with a paid job increased by 5.8% (3.9% for permanent and 2.0% for casual), from 45.5% at baseline to 51.4% at third review. There was a corresponding reduction of 5.8% in the percentage not in paid work, from 54.5% to 48.6%.

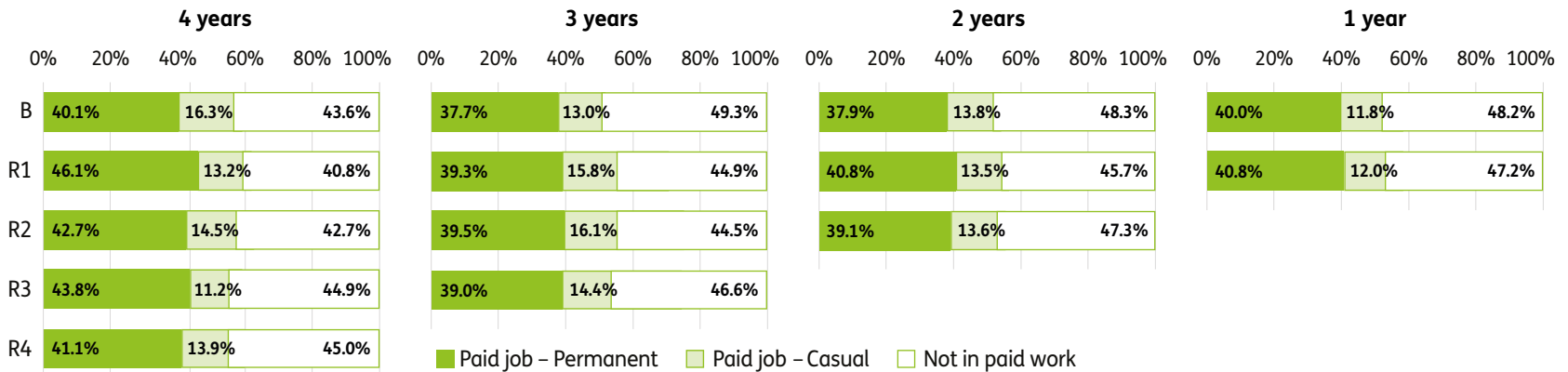
For participants in the Scheme for two years, the percentage of families/carers with a paid job increased by 2.5% (1.9% for permanent and 0.6% for casual), from 47.5% at baseline to 50.0% at second review. There was a corresponding reduction of 2.5% in the percentage not in paid work, from 52.5% to 50.0%.

For participants in the Scheme for one year, the percentage of families/carers with a paid job increased by 1.6% (0.9% for permanent and 0.7% for casual), from 47.4% at baseline to 49.0% at first review. There was a corresponding reduction of 1.6% in the percentage not in paid work, from 52.6% to 51.0%.

Note: changes from baseline to latest review in the percentage with a paid job (permanent or casual) are all significant (McNemar's test at the 0.05 level).

Are you currently working in a paid job?

Families/carers of participants aged 15 to 24



For participants in the Scheme for four years, there has been a small (and not statistically significant¹) decrease of 1.5% over four years in the percentage of families/ carers with a paid job (from 56.4% to 55.0%): a 1.0% increase in permanent employment offset by a 2.5% reduction in casual employment. There was a corresponding increase of 1.5% in the percentage not in paid work, from 43.6% to 45.0%.

For participants in the Scheme for three years, there was a significant¹ 2.7% increase in the percentage of families/ carers with a paid job (1.3% for permanent and 1.4% for casual), from 50.7% at baseline to 53.4% at third review. There was a corresponding reduction of 2.7% in the percentage not in paid work, from 49.3% to 46.6%.

For participants in the Scheme for two years, there was a non-significant¹ 1.0% increase in the percentage of families/ carers with a paid job (a 1.2% increase for permanent and a 0.2% decrease for casual), from 51.7% at baseline to 52.7% at second review. There was a corresponding reduction of 1.0% in the percentage not in paid work, from 48.3% to 47.3%.

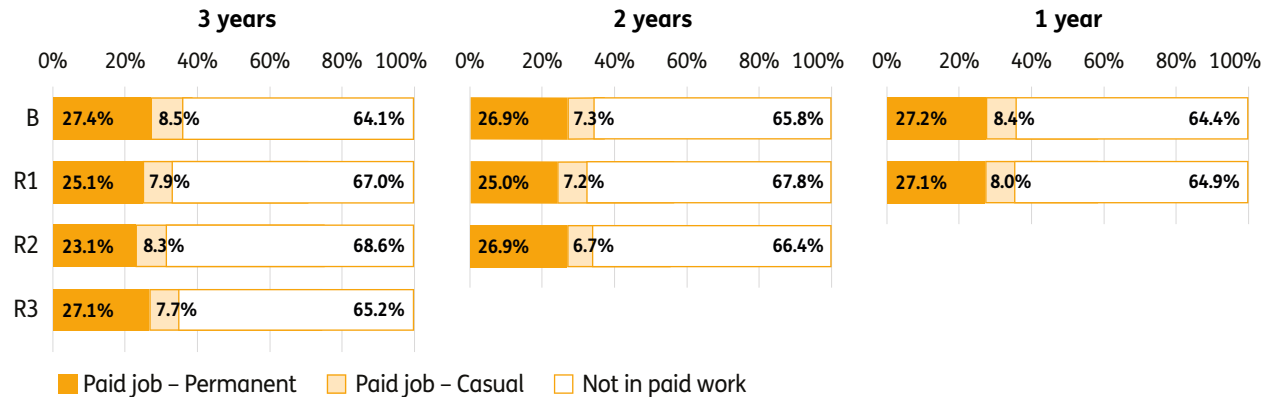
For participants in the Scheme for one year, there was a significant¹ 1.0% increase in the percentage of families/ carers with a paid job (0.8% for permanent and 0.2% for casual), from 51.8% at baseline to 52.8% at first review. There was a corresponding reduction of 1.0% in the percentage not in paid work, from 48.2% to 47.2%.

¹ McNemar's test at the 0.05 level, change from baseline to latest review in the percentage with a paid job (permanent or casual).

Are you currently working in a paid job?

Families/carers of participants aged 25 and over

Numbers are too small to show results for families and carers of participants aged 25 and over who have been in the Scheme for four years.



Note that families and carers of participants aged 25 and over tend to be older than for the younger participant age cohorts, and the lower percentages in paid employment, as well as the lack of improvement longitudinally, may be partly due to them retiring from the workforce.

For participants in the Scheme for three years, there was a non-significant¹ 1.1% decrease in the percentage of families/carers with a paid job (0.3% for permanent and 0.8% for casual), from 35.9% at baseline to 34.8% at third review. There was a corresponding increase of 1.1% in the percentage not in paid work, from 64.1% to 65.2%.

For participants in the Scheme for two years, there was a non-significant¹ 0.6% decrease in the percentage of families/carers with a paid job (almost all of the decrease was for casual), from 34.2% at baseline to 33.6% at second review. There was a corresponding increase of 0.6% in the percentage not in paid work, from 65.8% to 66.4%.

For participants in the Scheme for one year, there was a small but significant¹ 0.4% decrease in the percentage of families/carers with a paid job, mostly due to a reduction in casual employment, from 35.6% at baseline to 35.1% at first review. There was a corresponding increase of 0.4% in the percentage not in paid work, from 64.4% to 64.9%.

¹ McNemar's test at the 0.05 level, change from baseline to latest review in the percentage with a paid job (permanent or casual).

4.3 Employment status transition rates

One year transitions

Each row represents a different starting employment status, and the columns show the employment status one year later. The numbers shown in row and column headings represent numbers of transitions.

For example, for family/carers of participants aged 0 to 14, there were:

- 48,094 transitions from paid permanent employment; and
- 16,042 transitions to paid casual employment.

Family/carers of participants aged 0 to 14

To → From ↓	Paid job - Permanent (n=49408)	Paid job - Casual (n=16042)	Not in a paid job (n=65778)
Paid job - Permanent (n=48094)	89.6%	3.7%	6.7%
Paid job - Casual (n=15242)	12.2%	75.0%	12.9%
Not in a paid job (n=67892)	6.6%	4.2%	89.2%

Family/carers of participants aged 15 and over

To → From ↓	Paid job - Permanent (n=13320)	Paid job - Casual (n=4103)	Not in a paid job (n=22180)
Paid job - Permanent (n=13198)	91.5%	2.6%	5.8%
Paid job - Casual (n=4133)	11.0%	78.6%	10.4%
Not in a paid job (n=22272)	3.5%	2.3%	94.2%

4.3 Employment status transition rates

One year transitions

In paid permanent employment at start of year:

- 89.6% of family/carers of participants **aged 0 to 14** in this category remained there at review, while 3.7% moved to paid casual employment
- 91.5% of family/carers of participants **aged 15 and over** in this category remained there at review, while 2.6% moved to paid casual employment

In paid casual employment at start of year:

- 75% of family/carers of participants **aged 0 to 14** in this category remained there at review, while 12.2% moved to paid permanent employment
- 78.6% of family/carers of participants **aged 15 and over** in this category remained there at review, while 11.0% moved to paid permanent employment

The rates of maintaining employment are higher within paid permanent positions compared to paid casual positions. Within each type of employment (casual/permanent), family/carers of participants aged 15 and over are more likely to maintain employment.

Family/carers of participants aged 0 to 14

To → From ↓	Paid job – Permanent (n=49408)	Paid job – Casual (n=16042)	Not in a paid job (n=65778)
Paid job – Permanent (n=48094)	89.6%	3.7%	6.7%
Paid job – Casual (n=15242)	12.2%	75.0%	12.9%

Family/carers of participants aged 15 and over

To → From ↓	Paid job – Permanent (n=13320)	Paid job – Casual (n=4103)	Not in a paid job (n=22180)
Paid job – Permanent (n=13198)	91.5%	2.6%	5.8%
Paid job – Casual (n=4133)	11.0%	78.6%	10.4%

4.3 Employment status transition rates

One year transitions

Family/carers who are not in a paid job at the start of the year:

- 89.2% of family/carers of participants aged 0 to 14 in this category remained unemployed at review, whilst 6.6% and 4.2% moved into permanent and casual paid employment respectively
- 94.2% of family/carers of participants aged 15 and over in this category remained unemployed at review, whilst 3.5% and 2.3% moved into permanent and casual paid employment respectively
- The lower percentages moving into permanent or casual employment for family/carers of older participants may be due to older family/carer ages and specifically a greater proportion of retired family/carers.

Family/carers of participants aged 0 to 14

To → From ↓	Paid job - Permanent (n=49408)	Paid job - Casual (n=16042)	Not in a paid job (n=65778)
Not in a paid job (n=67892)	6.6%	4.2%	89.2%

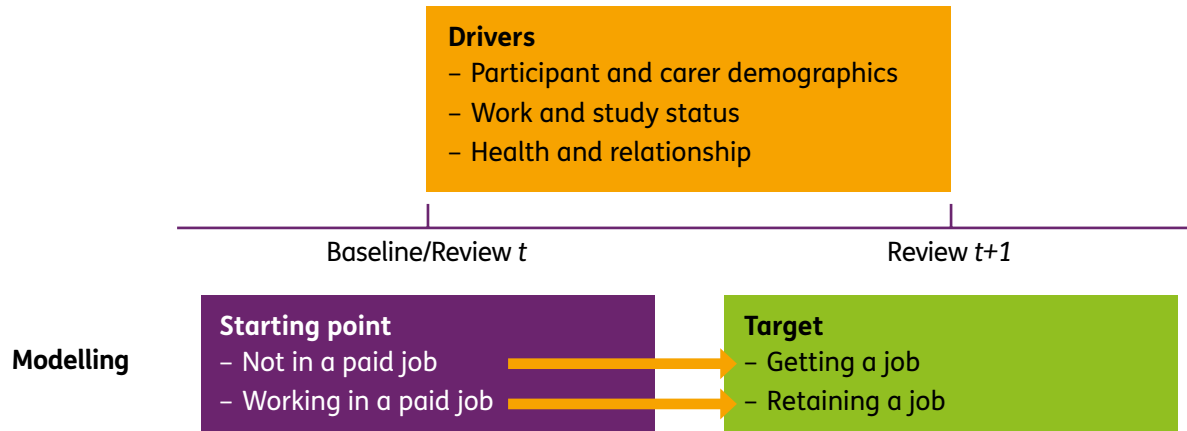
Family/carers of participants aged 15 and over

To → From ↓	Paid job - Permanent (n=13320)	Paid job - Casual (n=4103)	Not in a paid job (n=22180)
Not in a paid job (n=22272)	3.5%	2.3%	94.2%

4

4.4 Drivers of employment success

Modelling methodology



Multiple logistic regression modelling* has been used to identify key drivers of having a paid job at the next review ($t+1$), using all information available at review (or baseline) at time t . To reflect the different dynamics, separate models have been fitted depending on the family/carer's job status as at review (or baseline) t . The four models are for groups:

- Families/carers of participants aged 0 to 14 who are not working in a paid job at time t
- Families/carers of participants aged 15 and over who are not working in a paid job at time t
- Families/carers of participants aged 0 to 14 who are working in a paid job at time t
- Families/carers of participants aged 15 and over who are working in a paid job at time t

Note that a carer may have been in and out of employment multiple times between two reviews, but we only know their employment status at the start and end points (i.e. we have interval censored response data).

* Specifically, Generalised Estimating Equations (GEE) are used to allow for the correlation between longitudinal outcomes for the same respondent.

4.4 Drivers of employment success

Getting a job - variable importance

Family/carers of participants aged 0 to 14:

Top 5 variables by importance:

- Housing type (19.3%)
- Whether the carer is studying (13.4%)
- Self-rated health (12.1%)
- Level of NDIA support (9.8%)
- Plan management type (9.5%)

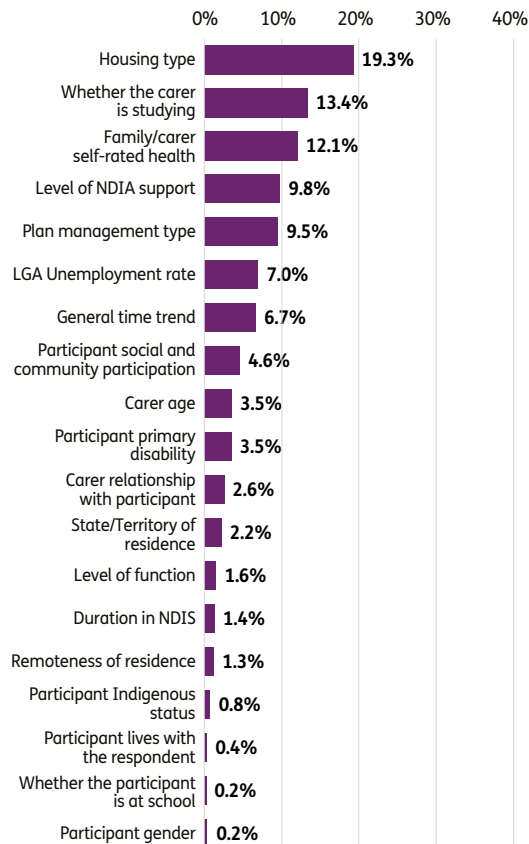
Family/carers of participants aged 15 and over:

Top 5 variables by importance:

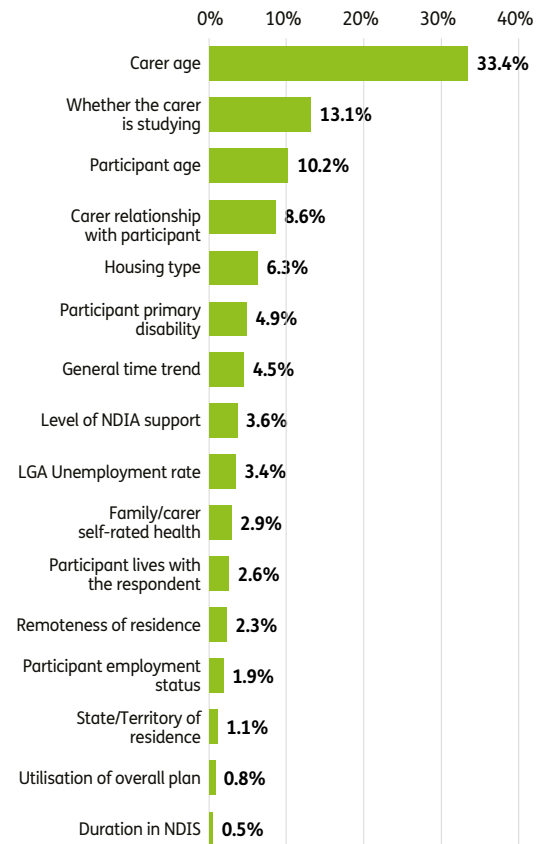
- Carer age (33.4%)
- Whether the carer is studying (13.1%)
- Participant age (10.2%)
- Carer relationship with participant (8.6%)
- Housing type (6.3%)

The variables **whether carer is studying** and **housing type** were amongst the top five most important variables for both age groups. **Carer health** was more important for family/carers of younger participants, and **carer age** was the most important for family/carers of older participants.

Participant aged 0 to 14



Participant aged 15 and over



4.4 Drivers of employment success

Getting a job – positive drivers

Families/carers of participants aged 0 to 14

Key drivers with a significant **positive** impact on families/carers getting a job:

- ↑ Living in WA¹
- ↑ Participant requires low level of NDIA support²
- ↑ Primary disability type of participant is stroke, multiple sclerosis or other (which includes degenerative disease and chronic health conditions)³
- ↑ Family/carer is currently studying, whether full-time or part-time⁴
- ↑ Family/carer self-rated health is “Excellent” or “Very Good”⁵
- ↑ Participant is involved in mainstream sport, clubs, get-together with friends, other group activities (whether with other children with disability or not) or participating in social and community activities about once a month⁶
- ↑ Plan is managed by a plan manager or self-managed (whether fully or partly)⁷
- ↑ Respondent is the participant’s father⁸
- ↑ Participant is in pre-school⁹
- ↑ Carer is aged 40 and below
- ↑ Higher level of function
- ↑ Have been in the Scheme for longer

¹ Compared to NSW and ACT

² Compared to medium level of NDIA support

³ Compared to autism

⁴ Compared to not studying

⁵ Compared to “Good”

⁶ Compared to no activities after school

⁷ Compared to agency-managed plans

⁸ Compared to mother

⁹ Compared to primary school/secondary school

4.4 Drivers of employment success

Getting a job – positive drivers

Families/carers of participants aged 15 and over

Key drivers with a significant **positive** impact on families/carers getting a job:

- ↑ Living in WA¹
- ↑ Living in Remote or Very Remote areas²
- ↑ Primary disability type of participant is stroke, multiple sclerosis or other (which includes degenerative disease and chronic health conditions)³
- ↑ Family/carer is currently studying, whether full-time or part-time⁴
- ↑ Respondent is the participant's father⁵
- ↑ Participant is employed⁶
- ↑ Participant does not live with the respondent
- ↑ Participant aged between 45 and 60
- ↑ Have been in the Scheme for longer
- ↑ Participant has used a greater percentage of their plan

¹ Compared to NSW and ACT

² Compared to Major Cities

³ Compared to intellectual disability

⁴ Compared to not studying

⁵ Compared to mother

⁶ Compared to not employed and not wanting a job

4.4 Drivers of employment success

Getting a job – negative drivers

Families/carers of participants aged 0 to 14

Key drivers with a significant **negative** impact on families/carers getting a job (i.e. less likely to get a job):

- ↓ Living in VIC or TAS¹
- ↓ Living in regional areas with population less than 5,000²
- ↓ Participant requires high/very high level of NDIA support³
- ↓ Primary disability type of participant is developmental delay, intellectual disability or global development delay⁴
- ↓ Participant is female
- ↓ Participant is Indigenous
- ↓ Family/carer self-rated health is “Fair” or “Poor”⁵
- ↓ Living in public housing, privately rented accommodation or other accommodation arrangements⁶
- ↓ Respondent is not a parent of the participant⁷
- ↓ Participant is not living with the respondent
- ↓ Carer is aged 40 and over
- ↓ Higher Local Government Area (LGA) unemployment rate
- ↓ Decreasing time trend (i.e. there is a general decrease over time in families/carers getting a job)

¹ Compared to NSW and ACT

² Compared to Major Cities

³ Compared to medium level of NDIA support

⁴ Compared to autism

⁵ Compared to “Good”

⁶ Compared to living in privately-owned accommodation

⁷ Compared to mother

4.4 Drivers of employment success

Getting a job – negative drivers

Families/carers of participants aged 15 and over

Key drivers with a significant **negative** impact on families/carers getting a job (i.e. less likely to get a job):

- ↓ Living in regional areas with population between 5,000 and 15,000¹
- ↓ Requires high/very high level of NDIA support²
- ↓ Family/carer self-rated health is “Fair” or “Poor”³
- ↓ Living in public housing⁴
- ↓ Carer aged 45 and over
- ↓ Participant aged under 45
- ↓ Higher LGA unemployment rate
- ↓ Decreasing time trend (i.e. there is a general decrease over time in families/carers getting a job)

¹ Compared to Major Cities

² Compared to medium level of NDIA support

³ Compared to “Good”

⁴ Compared to living in privately-owned accommodation

4.4 Drivers of employment success

Getting a job - segment table

Participants aged 0 to 14

Based on model insights, below is an example of simplified segments for families/carers based on their likelihood of finding a paid job:

- For those living in public housing, only 4.2% found a job at the end of the current review period. This group represents about 10% of the observations.
- In contrast, for those who were not living in public housing, and who were studying, 17.1% succeeded in finding paid employment. This group represents about 9% of the observations.

Participant segment			% of data	Success rate
Living in public housing			9.6%	4.2%
Not living in public housing	Family/carer is not studying	Plan is not fully self-managed	20.1%	7.5%
		Family/carer self-rated health is “Fair” or “Poor”.		
	Family/carer is studying	Family/carer self-rated health is “Excellent”, “Very Good” or “Good”	42.2%	11.0%
		Plan is fully self-managed	18.7%	14.0%
Total			100.0%	10.8%

4.4 Drivers of employment success

Getting a job - segment table

Participants aged 15 and over

Based on model insights, below is an example of simplified segments for families/carers based on their likelihood of finding a paid job:

- For respondents aged 55 or older, only 3.6% found a job at the end of the current review period. This group represents about 55% of the observations.
- In contrast, for those who were younger than 55, and who were studying, 16.6% succeeded in finding paid employment. This group represents about 3% of the observations.

Segment			% of data	Success rate
Respondent is aged 55 or older			54.7%	3.6%
Respondent is aged 54 or younger	The respondent is currently not studying	The respondent is a family member of the participant or a carer	7.0%	3.9%
		Living in privately owned or rented accommodation	33.3%	8.2%
		The respondent is neither a family member of the participant nor a carer	1.8%	15.5%
	The respondent is currently studying (whether full-time or part-time)		3.2%	16.6%
Total			100.0%	5.8%

Retaining a job – variable importance

Family/carers of participants aged 0 to 14:

The most important predictors of job retention are:

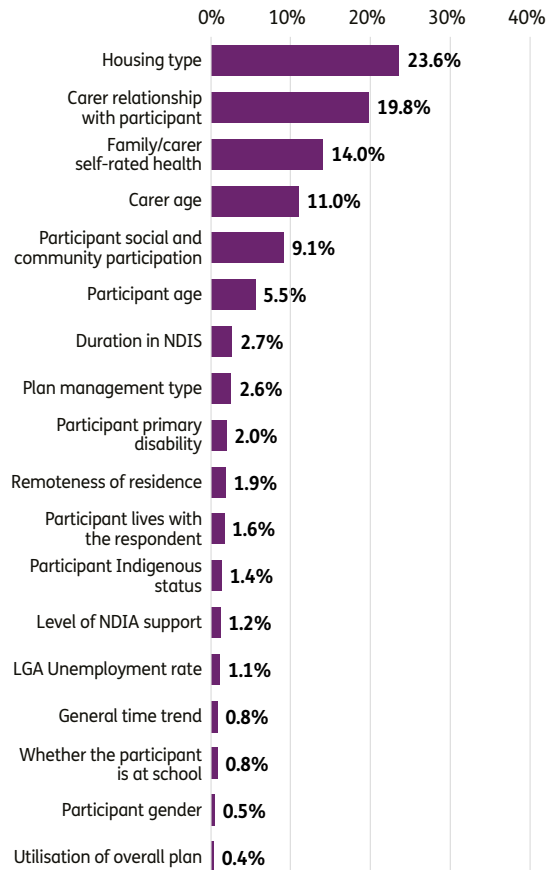
- Housing type (23.6%)
- Carer relationship with participant (19.8%)
- Carer self-rated health (14.0%)
- Carer age (11.0%)
- Participant social/community participation (9.1%).

Family/carers of participants aged 15 and over:

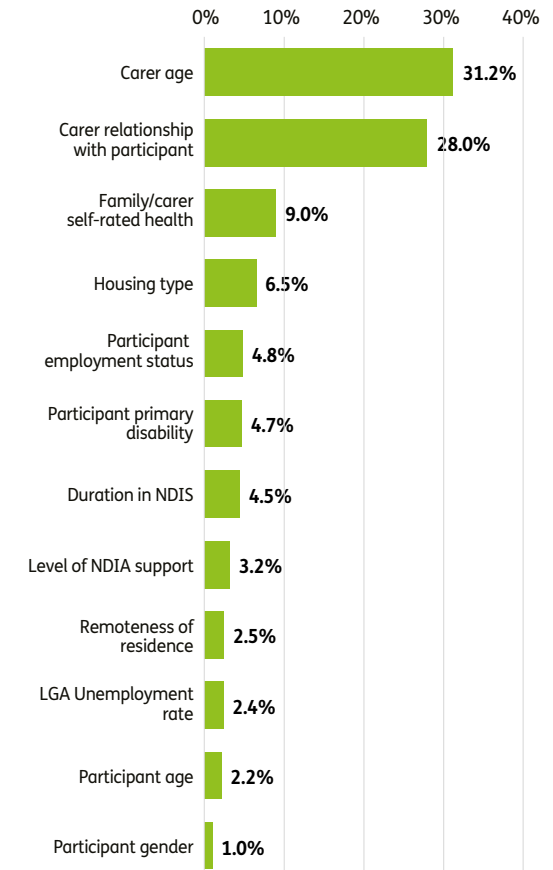
Highly important variables include:

- Carer age (31.2%)
- Carer relationship with participant (28.0%)
- Carer self-rated health (9.0%)

Participant aged 0 to 14



Participant aged 15 and over



4.4 Drivers of employment success

Retaining a job – positive drivers

Key drivers with a significant **positive** impact on families/carers retaining a job:

Families/carers of participants aged 0 to 14

- ↑ Participant requires low level of NDIA support¹
- ↑ Primary disability type of participant is hearing impairment, visual impairment or other physical disabilities²
- ↑ Family/carer self-rated health is “Excellent” or “Very Good”³
- ↑ Participant is involved in mainstream sport, clubs, get-together with friends, or other group activities⁴
- ↑ Plan is fully self-managed⁵
- ↑ Participant is in pre-school⁶
- ↑ Participant is older
- ↑ Increasing carer age at review (till age 50)
- ↑ Increasing time trend (i.e. there is a general increase over time in families/carers retaining a job).

Families/carers of participants aged 15 and over

- ↑ Requires high or low level of NDIA support¹
- ↑ Primary disability type of participant is stroke, or visual impairment⁷
- ↑ Participant is employed⁸
- ↑ Participant older than age 40
- ↑ Carer younger than age 45

¹ Compared to medium level of NDIA support

² Compared to autism

³ Compared to “Good”

⁴ Compared to no activities after school

⁵ Compared to agency-managed plans

⁶ Compared to primary/secondary school

⁷ Compared to intellectual disability

⁸ Compared to not employed but wanting a job

4.4 Drivers of employment success

Retaining a job – negative drivers

Key drivers with a significant **negative** impact on families/carers retaining a job:

Families/carers of participants aged 0 to 14

- ↓ Living in regional areas with a population between 15,000 and 50,000 or a population less than 5,000¹
- ↓ Participant is female
- ↓ Participant is Indigenous
- ↓ Family/carer self-rated health is “Fair” or “Poor”²
- ↓ Living in public housing, privately rented accommodation or other accommodation arrangements³
- ↓ Respondent is the participant’s father or not a parent of the participant⁴
- ↓ Participant is not living with the respondent
- ↓ Carer aged 50 and over
- ↓ Have been in the Scheme for longer
- ↓ Higher LGA unemployment rate
- ↓ Have used a greater percentage of their plans

Families/carers of participants aged 15 and over

- ↓ Living in regional areas with population less than 5,000¹
- ↓ Participant is female
- ↓ Family/carer self-rated health is “Fair” or “Poor”²
- ↓ Living in public housing or privately rented accommodation³
- ↓ Respondent is the participant’s father, sibling, grandparent, spouse/partner, carer or other (not a family member of the participant)⁴
- ↓ Participant is not employed and not wanting a job⁵
- ↓ Participant aged 40 or below
- ↓ Carer aged 45 and over
- ↓ Have been in the Scheme for longer
- ↓ Higher LGA unemployment rate

¹ Compared to Major Cities

² Compared to “Good”

³ Compared to privately-owned accommodation

⁴ Compared to mother

⁵ Compared to not employed but wanting a job

4.4 Drivers of employment success

Retaining a job - segment table

Participants aged 0 to 14

Based on model insights, below is an example of simplified segments for families/carers based on their likelihood of keeping a paid job:

- For those not living in privately owned accommodation, and who are not the mother of the participant, 85.0% were still in a job at the end of the review period. This group represents about 4% of the observations.
- In contrast, for those living in privately owned accommodation, who are the participant’s mother, and who participate in group activities, sports, clubs or gets together with friends, 95.3% were still in a job at the end of the review period. This group represents about 20% of the observations.

Segment		% of data	Success rate	
Not living in privately owned accommodation	Respondent is the participant’s father or has another relationship (i.e. is not the mother)	4.4%	85.0%	
	Respondent is the participant’s mother	19.6%	89.0%	
Not living in public housing	Respondent is the participant’s father or has another relationship (i.e. is not the mother)	11.2%	89.2%	
	Respondent is the participant’s mother	The participant takes part in activities other than those below; or does not take part in activities	45.1%	92.8%
	The participant participates in group activities, sports, clubs or gets together with friends.	19.6%	95.3%	
Total		100.0%	91.8%	

4.4 Drivers of employment success

Retaining a job - segment table

Participants aged 15 and over

Based on model insights, below is an example of simplified segments for families/carers based on their likelihood of keeping a paid job:

- For those who are a grandparent of the participant, or are not a family member, 84.1% were still in a job at the end of the review period. This group represents about 3% of the observations.
- In contrast, for those who are the participant’s mother, aged under 59, with excellent, very good or good health, 96.1% were still in a job at the end of the review period. This group represents about 39% of the observations.

Segment			% of data	Success rate
Respondent is not the mother of the participant	Respondent is grandparent of the participant, or is not a family member of the participant (carer or other)		2.9%	84.1%
	Respondent is the father, sibling, spouse/partner or another family member of the participant (excluding grandparents)	Respondent is aged 63 or over	3.4%	86.2%
		Respondent is aged 62 or younger	6.8%	91.0%
		Family/carer self-rated health is “Excellent”, “Very Good” or “Good”	22.3%	92.0%
Respondent is the mother of the participant	Respondent is aged 59 or over		9.7%	89.5%
	Respondent is aged 58 or younger	Family/carer self-rated health is “Fair” or “Poor”	15.9%	93.2%
		Family/carer self-rated health is “Excellent”, “Very Good” or “Good”	39.1%	96.1%
Total			100.0%	93.1%

ndis

www.ndis.gov.au

Copyright notice

© National Disability Insurance Scheme Launch Transition Agency

Copyright and use of the material in this document

Copyright in the material in this document, with the exception of third party material, is owned and protected by the National Disability Insurance Scheme Launch Transition Agency (National Disability Insurance Agency).

The material in this document, with the exception of logos, trade marks, third party material and other content as specified is licensed under Creative Commons Attribution Non-Commercial No Derivatives (CC BY NC ND) licence, version 4.0 International. You may share, copy and redistribute the document in any format. You must acknowledge the National Disability Insurance Agency as the owner of all intellectual property rights in the reproduced material by using '© National Disability Insurance Scheme Launch Transition Agency' and you must not use the material for commercial purposes.

Reproduction of any material contained in this document is subject to the CC BY NC ND licence conditions available on the Creative Commons Australia site, as is the full legal code for this material.

The National Disability Insurance Agency expects that you will only use the information in this document to benefit people with disability.

Please see the [NDIS website copyright statement](#) for further details about the use of logos and third party material.