

NDIS Participant Outcomes

30 June 2018

Contents

Executive summary.....	3
1. Introduction	18
2. Outcomes framework – development and implementation	20
3. Results overview and LF participation and representativeness analysis	25
4. Participants from birth to before starting school: overview of results.....	34
5. Participants from birth to before starting school: childcare	44
6. Participants from birth to before starting school: specialist services.....	53
7. Participants from birth to before starting school: Has the NDIS helped?	59
8. Participants from starting school to age 14: overview of results.....	61
9. Participants from starting school to age 14: school experiences.....	70
10. Participants from starting school to age 14: Has the NDIS helped?	85
11. Participants aged 15 to 24: overview of results	87
12. Participants aged 25 and over: overview of results	99
13. Participants aged 15 to 24 and 25 and over: employment outcomes	111
14. Participants aged 15 to 24 and 25 and over: social, community and civic participation	143
15. Participants aged 15 to 24 and 25 and over: Has the NDIS helped?	149

Executive summary

Background

Fundamentally, the National Disability Insurance Scheme (NDIS) was set up to allow people with disability to live “an ordinary life”: to fully realise their potential, to participate in and contribute to society, and to have a say in their own present and future – just as other members of Australian society do.

These aims are embedded in the legislation which established the Scheme, the National Disability Insurance Scheme Act 2013¹ (the NDIS Act), and included in the National Disability Insurance Agency (NDIA) Corporate Plan 2018-2022².

The NDIS Act underscores the Scheme objectives:

- To support the independence and social and economic participation of people with disability;
- To enable people with disability to exercise choice and control in the pursuit of their goals and the planning and delivery of their supports;
- To maximise independent lifestyles and full inclusion in the community; and
- To facilitate greater community inclusion of people with disability.

The NDIS Outcomes Framework questionnaires

The NDIS Act further indicates that the Scheme adopts an insurance-based approach. An insurance-based approach considers the lifetime cost of participants (including early investment), and the outcomes achieved across participants’ lifetimes. Measurement of outcomes and costs (both to the NDIS and other mainstream service systems) is critical in understanding the success of the NDIS and is a legislative requirement.³

Measurement of outcomes encompasses a wide range of areas, ranging from participants’ progress towards achievement of their own individual goals, to the broad economic and societal benefits that are expected to emerge from the Scheme in the longer term.

The NDIS Outcomes Framework questionnaires have been developed to measure progress towards a common set of accepted goals for each participant, so that the results can be aggregated to provide a picture of how and where the Scheme is making a difference. In addition, a common set of goals allows benchmarking to Australians without disability and to other OECD countries.

This report analyses the results of the outcomes framework questionnaires for people who entered the Scheme in 2016-17 and 2017-18 (referred to as “the baseline” as the NDIS has not influenced the outcomes of participants at this point), and also the one year longitudinal

¹ <http://www.comlaw.gov.au/Details/C2013A00020/Download>

² <https://ndis.gov.au/about-us/information-publications-and-reports/corporate-plan>

³ Further, the National Disability Insurance Scheme forms part of the broader National Disability Strategy 2010-2020. The strategy is a commitment from all governments to a shared vision of an inclusive Australian society that enables people with disability to fulfil their potential as equal citizens. In particular, the strategy emphasises the need for improved performance of mainstream services in delivering outcomes for people with disability.

change in outcomes for people who entered in 2016-17 and have been in the Scheme for one year. One year is not a lot of time to measure success – however, importantly this report starts the conversation on what factors are driving good outcomes, and indicates that the NDIS is improving many participants' lives.

Baseline versus progress

It is important to recognise that, with respect to how they are going in different areas of their lives, participants do not enter the Scheme on an equal footing. A whole range of individual and external factors will impact on the experiences of participants at baseline, including the nature and severity of their disability, the extent of support they receive from family and friends, how inclusive their community is, their general health, and even their own inherent resilience.

A stark example of this baseline variability is provided by young adult participants with a psychosocial disability. These participants were found to have consistently poorer baseline outcomes, across all life domains. On the other hand, participants with a hearing impairment generally experience better baseline outcomes.

Consequently, the success of the Scheme should be judged not on baseline outcomes, but on how far participants have come since they entered the Scheme, acknowledging their different starting points.

It is also important to note that whilst some of the benefits of the Scheme should be quick to emerge (for example, provision of assistance with daily living support will quickly change a participant's circumstances), others are much more long-term in nature (for example, gaining employment), and measurable progress may take some years to emerge.

Finally, it should be recognised that some of the domains included in the outcomes framework (for example, home and health) are not the primary responsibility of the NDIS, but are nevertheless included in order to provide a fuller picture of participants' circumstances.

A lifespan approach

Leveraging research conducted by the NDIS Independent Advisory Council (IAC), the outcomes framework takes a lifespan approach to the measurement of outcomes, recognising that different milestones are important for different age groups.

Reflecting this lifespan approach, the report is organised with a separate subsection for each participant age cohort⁴, synthesising analyses from all data sources⁵.

In view of the large amount of data, to keep the report manageable we have chosen to focus in depth on one or two areas judged to be of particular relevance for each age cohort. High level summaries of results across all domains are also included, and separate volumes of Appendices contain summaries for each individual question.

⁴ Participants from birth to before starting school, participants from starting school to age 14, participants aged 15 to 24, and participants aged 25 and over.

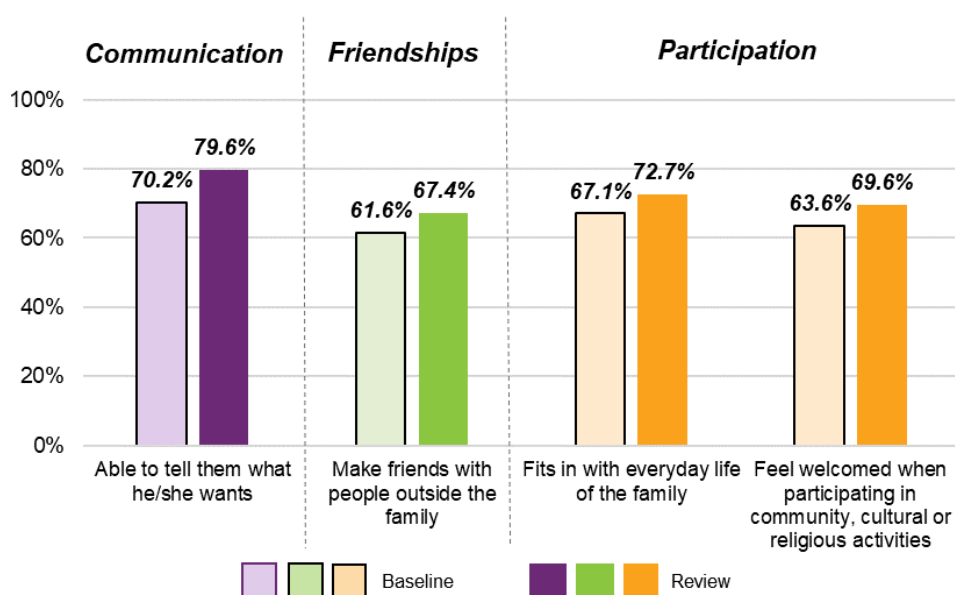
⁵ The Short Form (SF) outcomes framework and the Long Form (LF) outcomes framework, baseline and longitudinal information.

Participants from birth to before starting school

Overall results

- In the longitudinal analysis, significant improvements were observed across a number of indicators⁶, particularly in the areas of:
 - Communication: the percentage who say their child is able to tell them what he/she wants has increased by 9.4%, from 70.2% at baseline to 79.6% approximately one year later.
 - Making friendships: the percentage of children who can make friends with people outside the family has increased by 5.8% (from 61.6% to 67.4%), and the percentage who have friends that they enjoy playing with has increased by 10.6% (from 46.7% to 57.3%).
 - Participating in family life and community activities: the percentage who say their child fits in with the everyday life of the family has increased by 5.6% (from 67.1% to 72.7%), and the percentage of those participating in community, cultural or religious activities who feel welcomed has increased by 6.0% (from 63.6% to 69.6%).

Figure 1 Changes in indicators for birth to starting school participants



- Understandably, their child's progress in major developmental areas is a key concern of parents and carers. From the longitudinal analysis, the proportion of parents/carers expressing concern about their child's development in six or more of eight areas surveyed has increased by 6.5%, from 60.8% to 67.3%.
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.

⁶ Note that at least some of the observed change may be attributable to normal age-related development, since the children will be one year older at the second time point.

- Participants with a hearing impairment generally experience better outcomes than those with other disabilities, both baseline and longitudinal.
- Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, children in regional and remote areas are more likely to improve in their ability to tell their parents/carers what they want, and in their ability to make friends outside the family.
- Indigenous children tend to exhibit slightly worse outcomes at baseline. They are also less likely to live with their parents than non-Indigenous children, and more likely to live in public housing. For longitudinal change, small numbers make it difficult to identify differences.
- Baseline outcomes for children from a CALD background are mixed. They are more likely to live with their parents, and parents/carers are less likely to express concerns about their child's development, however they tend to fare worse on some of the relationship and participation indicators. For longitudinal change, small numbers make it difficult to identify differences.
- Opinions on whether the NDIS has helped tend to be positive for this cohort. In particular, there is widespread agreement that the NDIS has helped in areas related to the child's development (91%) and access to specialist services (89%). Higher baseline plan utilisation is a strong predictor of a positive response across all five areas surveyed. Participants entering the Scheme for early intervention are more likely to think that the NDIS had helped than those entering due to disability.

Childcare

66% of parents/carers of children under 5 use childcare, significantly lower than the age-adjusted population benchmark of 76% estimated using the Household, Income and Labour Dynamics in Australia⁷ (HILDA) survey. This includes any use of childcare, while the parents/carers are at work or while they are not at work.

However, compared to the HILDA survey, parents/carers of NDIS participants are more likely to use childcare while not at work (28% versus 20%). This may be due to parents/carers using childcare in order to have a break.

Multiple regression analysis suggests that participants with higher/complex needs are less likely to attend childcare. On the other hand, participation in community and the ability to make friends are associated with increased use of childcare: these attributes could be either a driver of childcare use (parents/carers feel more comfortable sending their child to childcare once they have the necessary social skills) or an outcome of using childcare (use of childcare fosters social skills).

Children's experiences at childcare were generally positive, with 94% of those using group childcare saying that other children and other families were welcoming, 90% thinking that their child was asked to do tasks at an appropriate level, and 97% feeling that their cultural heritage was respected (where applicable).

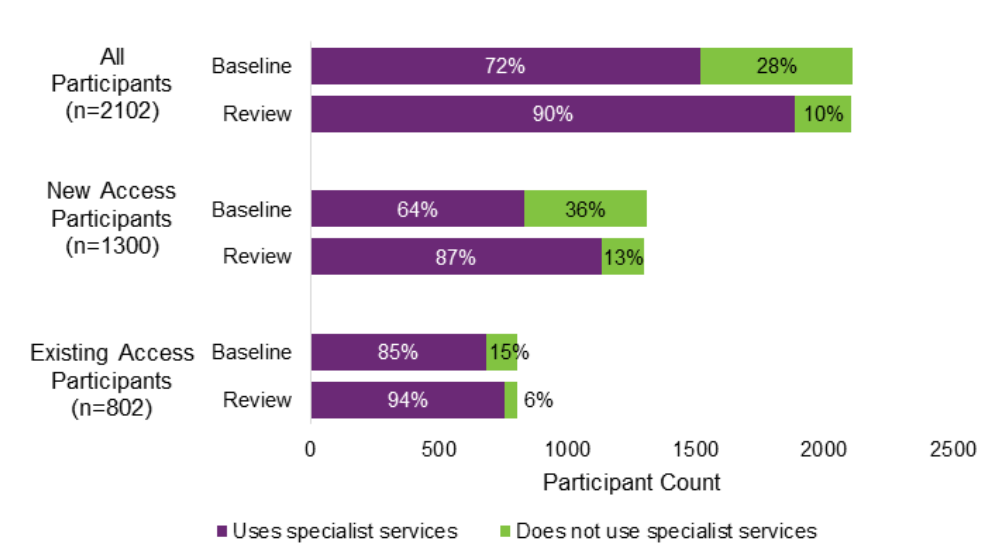
⁷ <https://melbourneinstitute.unimelb.edu.au/hilda>

Specialist services

Use of specialist services is widespread amongst NDIS participants, and has increased significantly between baseline (72%) and review (90%). Increases are observed for both existing participants (those receiving services from State/Territory or Commonwealth systems before entering the NDIS) and new participants, but more so for new participants, suggesting that much of the increase is attributable to participants and their families receiving funding towards these specialist services for the first time.

The majority of respondents feel that the specialist services they are using contribute positively to their child's learning and development, and assist them to support their child. The percentages who feel this way have also increased between baseline (87-88%) and review (95-96%).

Figure 2 Use of specialist services, by Scheme access entry type



Participants with a developmental delay, those living in South Australia, and those living in a high unemployment Local Government Area, are less likely to use specialist services.

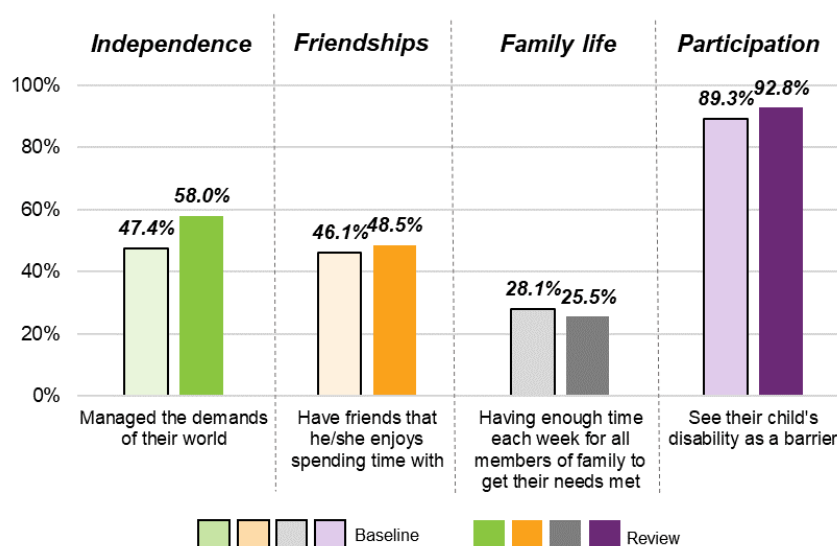
Early intervention participants are more likely to use specialist services, suggesting that these services are viewed as an effective early intervention support for children with a disability or developmental delay. Over time, investigation of the relationship between early intervention exits and use of specialist services will help quantify the effectiveness of these services in improving outcomes to a point where children no longer need individualised support from the Scheme.

Participants from starting school to age 14

Overall results

- In the longitudinal analysis, significant improvements were observed across a number of indicators, particularly in the areas of independence and friendships. On the other hand, a number of indicators have deteriorated, particularly related to impact on family life and involvement in activities.

Figure 3 Changes in indicators for starting school to age 14 participants



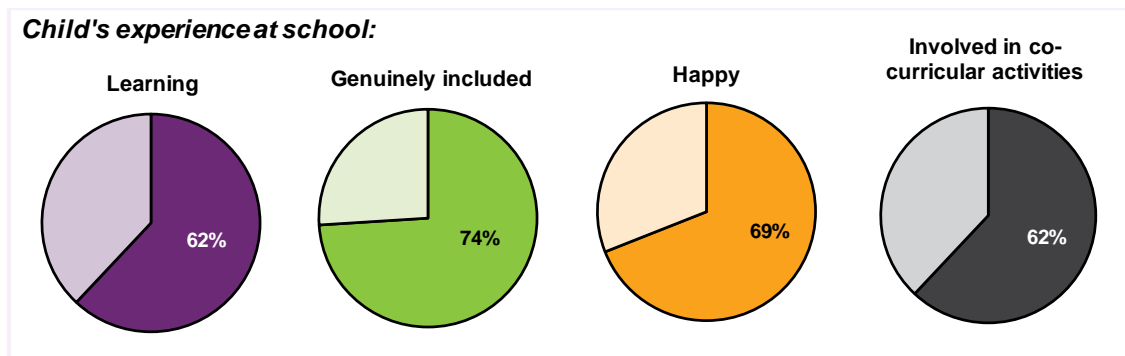
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Participants with a hearing impairment generally experience better outcomes than those with other disabilities.
- Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change.
- Children from a CALD background have worse outcomes on most baseline indicators. For longitudinal change, small numbers make it difficult to identify differences.
- Baseline results for Indigenous participants are more mixed. Indigenous children tend to exhibit higher levels of independence, but their school experiences tend to be worse than for non-Indigenous children. As for the younger cohort, Indigenous children are less likely to live with their parents, and more likely to live in public housing. For longitudinal change, small numbers make it difficult to identify differences.
- Opinions on whether the NDIS has helped for the starting school to 14 cohort vary by domain, with the percentage responding positively ranging from 33% for access to education to 51% for independence. For education, however, the mainstream education system has a much bigger role in ensuring successful outcomes than the NDIS. Higher baseline plan utilisation is a strong predictor of a positive response across all four areas surveyed. The fact that utilisation tends to be lowest for the starting school to 14 cohort may contribute to the observed lower levels of satisfaction. Self-managing (either fully or partly) also tends to be associated with more positive responses. Participants entering the

Scheme for early intervention are more likely to think that the NDIS has helped with independence and school than those entering due to disability.

School experiences

At baseline, 65% of participants attended school in a mainstream class, with 21% in a special school and 12% in a support class. The percentage in a mainstream class declines with school year, from 75% for K-2, to 64% for years 3-6, and 42% for years 7-10. The percentage also varies considerably by disability: for example, only 38% of children with an intellectual disability or Down syndrome attend school in a mainstream class, compared to almost 90% of children with a sensory disability, developmental delay, or global developmental delay. The percentage in a mainstream class declines with decreasing level of function.

Figure 4 School experiences



Parents and carers report that children attending a special school are more likely to feel genuinely included and happy at school. Parents and carers of children at a special school also report having better knowledge of their child's goals at school and tend to be more satisfied that the school listens to them in relation to their child's education.

However, analysis of the impact of educational setting on other outcomes reveals that children enrolled in a support class or special school are less likely to be developing independence, to have a genuine say in decisions about themselves, to make friends outside the family, and to spend time with friends without an adult present. Hence from a broader perspective, participation in mainstream education confers benefits on independence, relationships, and social participation that are less likely to be experienced by children attending a special school.

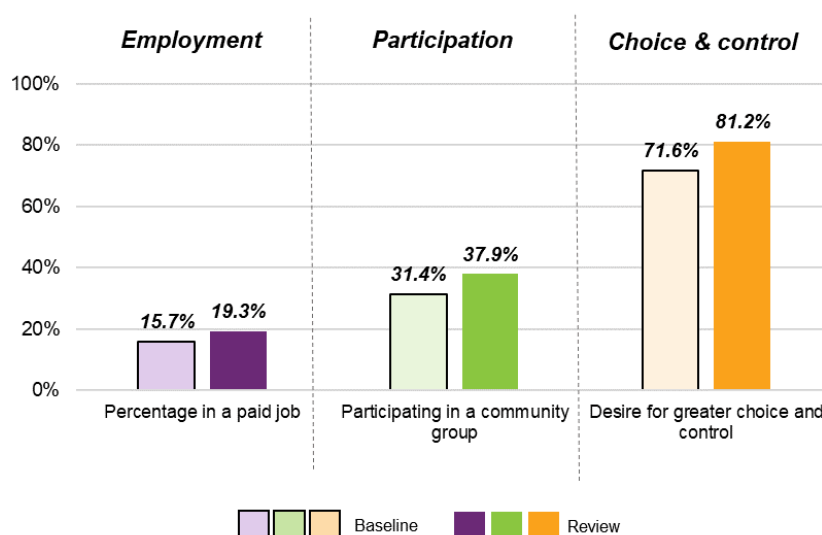
Longitudinal analysis reveals a significant improvement in the percentage of parents/carers who say they know their child's goals at school: from 69% at baseline to 80% approximately one year later. Improvement tended to be greater for children attending a special school.

Longitudinal analysis also reveals that the percentage of children attending school in a mainstream class has declined from 54.4% at baseline to 52.5% at review. Children with lower level of function, older children, those with an intellectual disability, and those living in public housing, were more likely to move out of a mainstream class. Conversely, participants in outer regional and remote areas were less likely to move out of a mainstream class compared to those in major cities. Children's experiences at school were also associated with moving out of a mainstream class: the more positive the child's experiences at school at baseline, such as learning at school and being involved in co-curricular activities, the less likely the child was to move out of a mainstream class.

Participants aged 15 to 24 – overall results

- In the longitudinal analysis, significant improvements were observed across a number of indicators, including the percentage in a paid job (by 3.7%, from 15.7% at baseline to 19.3% at review) and the percentage participating in a community group in the last 12 months (by 6.5%, from 31.4% at baseline to 37.9% at review). More participants expressed a desire for greater choice and control (an increase of 9.6%, from 71.6% to 81.2%).

Figure 5 Changes in indicators for participants aged 15-24



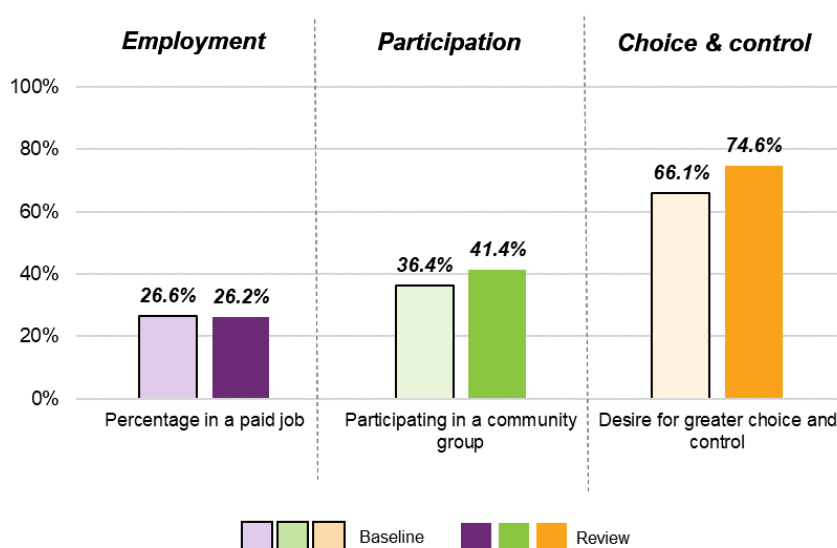
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Participants with a sensory disability generally experience better outcomes. At baseline, participants with a psychosocial disability do not do as well as participants with other disabilities, and this is observed across all domains. Interestingly, participants with a visual impairment have much higher rates of volunteering (21% compared to 13% overall). Also of note is the considerable variation in smoking rates by disability, ranging from 0% for participants with Down syndrome to 31% for participants with a psychosocial disability (the overall rate is 7%).
- Participants from regional and remote locations tend to experience higher levels of choice and control, and are much more likely to know people in their community than those living in major cities. However they are less likely to have a regular doctor and more likely to have difficulty accessing health services.
- Participants from a CALD background tend to have lower baseline levels of choice and control but tend to be happier with their home.
- At baseline, Indigenous participants have slightly higher levels of choice and control than non-Indigenous participants. However, Indigenous participants were almost twice as likely to say they often felt lonely, were less happy with their home, and had poorer health outcomes. Indigenous participants were almost four times as likely to smoke (23% compared to 6% for non-Indigenous participants).

Opinions on whether the NDIS has helped vary considerably by domain for the young adult cohort, being lowest for work (21%) and home (24%), and highest for choice and control (61%) and daily activities (59%). Higher baseline plan utilisation is a strong predictor of a positive response across all eight domains. Perceptions also tended to improve with increasing plan cost. Participants from QLD and WA tended to be more positive, and those from TAS and ACT less positive.

Participants aged 25 and over – overall results

- In the longitudinal analysis, significant improvements were observed across a number of indicators, including the percentage participating in a community group in the last 12 months, which increased by 5.0%, from 36.4% to 41.4%. A number of other participation indicators have improved significantly. More participants expressed a desire for greater choice and control (an increase of 8.5%, from 66.1% to 74.6%).
- However, the percentage in a paid job has not changed significantly, being 26.6% at baseline and 26.2% at review.

Figure 6 Changes in indicators for participants aged 25 and over



- NDIS participants tend to have poorer baseline health and wellbeing outcomes than Australians overall. 48% of participants 25 and over rated their health as good, very good or excellent, compared to 87% of Australians aged 25 to 64 overall⁸. NDIS participants also express lower overall life satisfaction than the general population, with 52% saying they felt “delighted”, “pleased” or “mostly satisfied” with their life, compared to 77% of Australians aged 25 to 64 overall⁹. 41% of adult participants had been to hospital in the last 12 months, compared to 11% of Australians aged 25 to 64¹⁰. Moreover, 56% of those who had been to hospital had had multiple visits, compared to a population figure of 23% for Australians aged 25 to 64¹⁰.
- 33% of participants said they had experienced some difficulty in getting health services. The most common reason cited was access issues (10%), however 6% said it was because of the attitudes and/or expertise of health professionals.
- 17% of adult participants said they currently smoked, and this is similar to a 2014-15 population figure for 25 to 64 year olds of 18%⁸. However, there is considerable variation in smoking rates by disability. At 50%, the percentage of participants with a psychosocial disability who smoke is almost four times the percentage for other disabilities combined

⁸ ABS National Health Survey (NHS) 2014-15.

⁹ ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

¹⁰ ABS Patient Experience Survey (PES) 2016-17.

(13%). At the other extreme, none of the participants with Down syndrome surveyed said that they smoke.

- The impact of disability type on other outcomes varies by domain. For example, at baseline, participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability or multiple sclerosis experience higher levels. However participants with multiple sclerosis have the poorest self-rated health and are more likely to go to hospital. As for the younger adult cohort, participants with a visual impairment are much more likely to volunteer (22% versus 13% overall).
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Results by remoteness were mixed. For example, overall life satisfaction improved with increasing remoteness, as did levels of volunteering and the likelihood of knowing people in the community. However difficulties in accessing health services tended to increase with remoteness, and participants in major cities were more likely to have a paid job.
- Results by CALD status were also mixed, being slightly better for some baseline choice and control indicators but poorer on some health and wellbeing indicators. CALD participants were less likely to smoke.
- At baseline, choice and control indicators for Indigenous participants tend to be slightly worse than for non-Indigenous participants. However Indigenous participants are more likely to have someone outside the home to call on for help. Indigenous participants were less happy with their home, were less likely to feel safe at home and in their community, and had poorer health outcomes. Indigenous participants were much more likely to smoke (30% compared to 17% overall).
- For participants 25 and over, opinions on whether the NDIS has helped tend to be slightly more optimistic than for the young adult cohort, apart from lifelong learning and work, but generally reflect a similar pattern by domain. The percentage who think the NDIS has helped is highest for daily activities (71%), followed by choice and control (67%). Percentages are lowest for home (30%) and work (20%). Higher baseline plan utilisation is a strong predictor of a positive response across all eight domains. Perceptions also tended to improve with plan cost. Participants from QLD and WA tended to be more positive, and those from TAS and VIC less positive.

Participants aged 15 to 24 and 25 and over – employment outcomes

As well as individual benefits, increased participation in the workforce of people with disability also produces wider benefits to the Australian economy. Recent economic modelling suggests that lifting employment levels to the OECD average for people with disability would result in an additional 117,000 Australians employed, and an increase in GDP of 0.5% (\$11.9 billion) by June 2030¹¹.

As at 30 June 2018, 23% of working age NDIS transition participants said they had a paid job at entry to the Scheme – 17% of those aged 15 to 24 and 25% of those aged 25 or over.

For those with a paid job at baseline, 41% of 15 to 24 year olds and 33% of those aged 25 and over were in open employment at full award wages. Conversely, 35% of 15 to 24 year olds, and 49% of those aged 25 and over, were working in an Australian Disability Enterprise (ADE).

Baseline employment levels were highest for participants aged 25 to 44, however these participants were the least likely to be in open employment at full award wages. Between ages 25 and 59, approximately one-half of all participants with a paid job were working in an ADE. The percentage self-employed is negligible at young ages, but increases to substantial levels at older ages.

Participants with a hearing impairment were more likely to be in a paid job, and more likely to be in open employment. Participants with neurological disabilities and those with a psychosocial disability had the worst baseline employment levels. Participants with an intellectual disability or Down syndrome were the least likely to be in open employment.

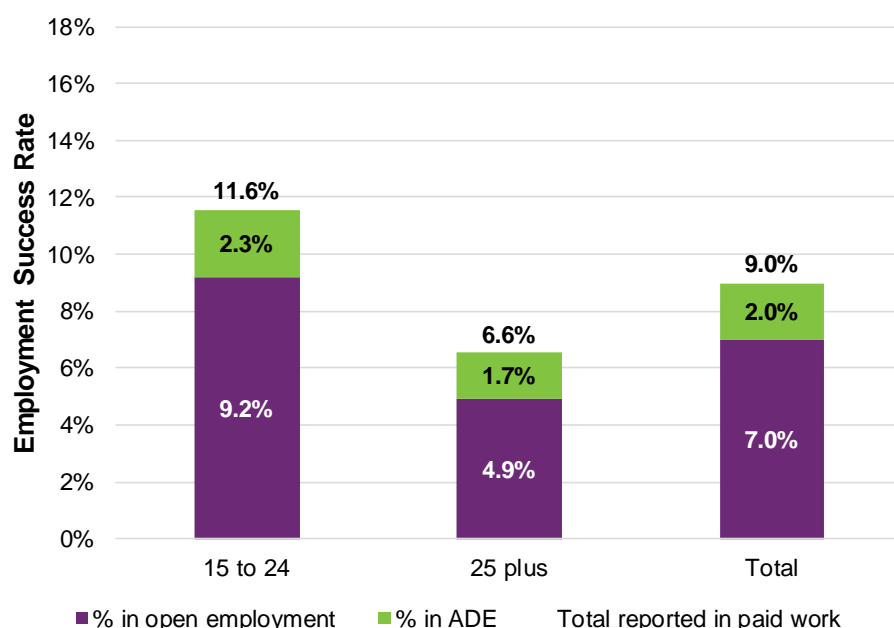
Preliminary results from linking NDIA and Centrelink data suggest that 77% of NDIS participants aged 16 to 69 were receiving the DSP at July 2018, and 7% of DSP recipients also had an NDIS approved plan at this date.

Overall, 31% of working age participants have a work-related goal in their plan – 44% of 15 to 24 year olds and 26% of those 25 and over.

For those who don't have a job at baseline but say they would like one, 9% subsequently had a job at review – 12% of those aged 15 to 24 and 7% of those aged 25 or over.

¹¹ Deloitte Access Economics 2018. *Increased labour force engagement among Australians with a disability*. Report prepared for the NDIA, September 2018.

Figure 7 Employment success rates for participants looking for work by type of employment



Longitudinal analysis suggests that for participants aged 15 to 24, increasing independence and building capacity are important for maximising the chances of getting a job. For participants aged 25 and over, inclusion of work goals and employment funding in participants' plans, and improvement of health outcomes, appear to be more important. The SLES program is only available to the younger cohort and this may be driving some of the differences in employment success rates.

For those who did have a job at baseline, 88% also said they had a job at review – 80% of those aged 15 to 24 and 90% of those aged 25 or over.

Participants who are working in an ADE at baseline are significantly more likely to also be in paid employment at review than participants who are working in open employment. However, this apparently greater job security may come at the expense of lower wages and narrower social interactions.

A primary aim of the outcomes framework is to help identify providers who are achieving good outcomes for participants, whilst recognising that participant characteristics and other factors outside the control of the provider will also have an impact on outcomes. Consistent with this aim, providers who achieve better than expected employment outcomes have been identified. One provider, Provider A, stood out for its exceptional results in helping young participants aged 15 to 24 to find paid work.

Participants aged 15 to 24 and 25 and over – social and community participation outcomes

Social, community and civic participation has many potential benefits for people with disability, including improved well-being, lower long-term costs of care and support, and increased employment opportunities. There are also benefits to the wider community, as the inclusion of people with disability in the community can enhance Australia's social capital, and promote a more inclusive and diverse society.

Baseline participation levels – participants 15 to 24

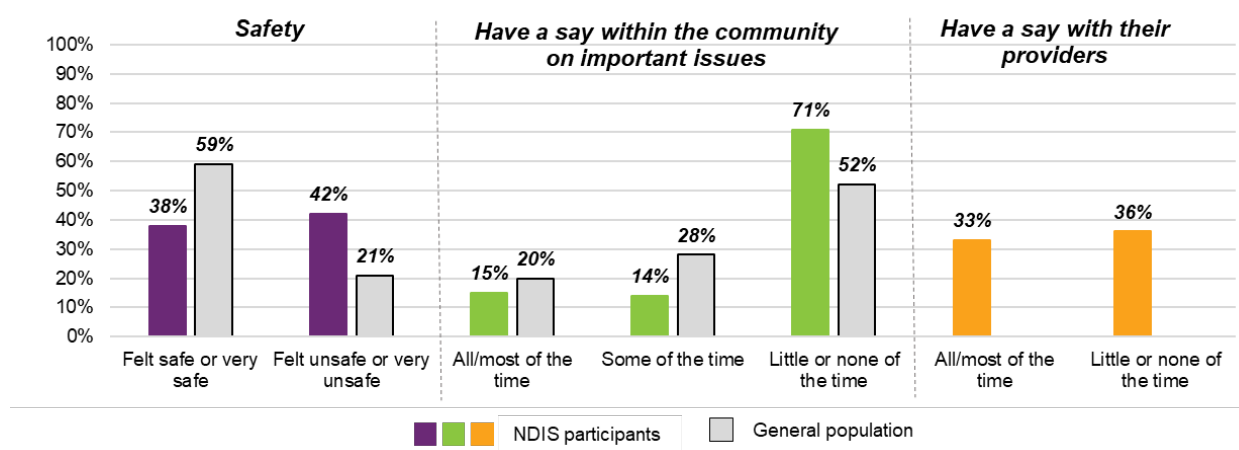
13% of participants aged 15 to 24 said they currently volunteered, and a further 27% expressed an interest in volunteering. 32% had been involved in a community, cultural or religious group in the last 12 months, with 83% feeling a sense of belonging to the group. However, 30% said they had had negative experiences in their community in the past 12 months.

When asked “How safe or unsafe do you feel walking alone in your local area after dark?”, 71% of NDIS participants said that they never go out alone. Of those who do go out alone, 38% said they felt safe or very safe whereas 42% said they felt unsafe or very unsafe. From the 2014 ABS General Social Survey¹² (GSS), the corresponding figures for 15 to 24 year olds were 59% and 21%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 15% of participants felt able to have a say all of the time or most of the time, 14% some of the time, and 71% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 15 to 24 year olds were 20%, 28% and 52%.

33% of participants felt able to have a say with their support providers either all of the time or most of the time, however 36% were only able to have a say a little of the time or not at all.

Figure 8 Social, civic and community participation indicators, NDIS participants compared with the general population



¹² ABS General Social Survey (GSS) 2014.

Baseline participation levels – participants 25 and over

13% of participants said they currently volunteered, and a further 23% expressed an interest in volunteering. 36% had been involved in a community, cultural or religious group in the last 12 months, with 90% feeling a sense of belonging to the group. However, 25% said they had had negative experiences in their community in the past 12 months.

When asked “How safe or unsafe do you feel walking alone in your local area after dark?”, 66% of NDIS participants said that they never go out alone. Of those who do go out alone, 57% said they felt safe or very safe whereas 31% said they felt unsafe or very unsafe. From the 2014 ABS General Social Survey¹² (GSS), the corresponding figures for 25 to 64 year olds were 68% and 17%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 23% of participants felt able to have a say all of the time or most of the time, 12% some of the time, and 66% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 25 to 64 year olds were 25%, 30% and 45%.

47% of participants felt able to have a say about their support providers either all of the time or most of the time, however 26% were only able to have a say a little of the time or not at all.

Longitudinal analysis

Longitudinal analysis reveals that the percentage of participants who say they have been actively involved in a community, cultural or religious group in the last 12 months has increased significantly for both 15 to 24 year olds and those aged 25 or over.

Logistic regression modelling has been used to identify key drivers of either attaining (for those not involved at baseline) or maintaining (for those involved at baseline) involvement in a community, cultural or religious group at review. This modelling found that:

- Participants who volunteer at baseline are more likely to say they have been actively involved in a community, cultural or religious group in the last 12 months at review.
- Participants who are in a paid job at baseline are also more likely to say they have been actively involved in a community, cultural or religious group in the last 12 months at review.
- Participants with Down syndrome have consistently higher levels of involvement in a community, cultural or religious group than participants with other types of disability. However, this result is associated with a greater proportion of participants with Down syndrome being involved in groups for people with disability rather than mainstream community groups.

1. Introduction

1.1 Purpose and scope

The purpose of this report is to provide a picture of how participants and their families and carers are progressing under the NDIS, based on information provided by them in interviews conducted as part of the NDIS outcomes framework. The results are intended to provide insight into how the Scheme is making a difference, and point to any areas where improvements may be required.

The outcomes framework is a key tool for monitoring progress towards aspiration 1 of the Corporate Plan 2017-21: “Better participant outcomes”.

1.2 Measuring outcomes

The outcomes framework measures participant and family/carer progress using a common set of questions for each life stage. This methodology allows results to be aggregated to enable an overall assessment of Scheme impact.

A broader view of outcomes needs to include measurement of other outcome dimensions such as participant goals and broader economic benefits. Whilst these other dimensions are not the main subject of this report, for completeness some components of the wider scope of outcomes measurement are discussed briefly in this section.

1.2.1 Participant goals

During the pre-planning process, participants choose their own goals, including objectives of the plan as well as medium to longer-term life goals.

Currently, progress against goals is assessed informally through reflection and discussion at subsequent plan reviews. However, development of a more formal measurement process is currently underway. A literature review of existing tools to measure goal attainment, including an assessment of their suitability for measuring NDIS participant goals, has been undertaken. A goal assessment framework, covering the key phases of goal negotiation, goal setting, and evaluation of goal achievement, has been proposed. The framework includes elements of existing tools and a recommendation to leverage existing Agency tools, such as the outcomes framework.

1.2.2 Outcomes framework

Measuring how participants are progressing in relation to their personal goals is an important part of plan review. The outcomes framework supplements this information by measuring progress towards a common set of accepted goals for each participant, so that the results can be aggregated to provide a picture of how and where the Scheme is making a difference. In addition, a common set of goals allows benchmarking to Australians without disability and to other OECD countries.

Analysis of how funded supports change in response to outcomes also contributes to effective monitoring of Scheme financial sustainability. For example, achieving increased independence should lead to a decrease in funded core supports.

The outcomes framework is discussed in more detail in Section 2.

1.2.3 Broader economic benefits

The NDIS is expected to benefit the broader Australian economy, for example through increased participation in work for people with disability and their families and carers, reduced hospitalisations through improved support in the community, and reduced involvement with the justice system through improved outcomes for people with disability.

Linking NDIS participant data with other government data will enable assessment of these broader economic benefits. The NDIA has already established a link with Centrelink data, and is negotiating with other government bodies. Some information on participants receiving the DSP is included in this report.

The information collected via data linkages will feed into economic models. For example, Centrelink and ATO data will act as inputs to an economic model which has been developed to measure the impact on the Australian economy of participants and families/carers entering employment.

1.2.4 LAC, ECEI gateway and ILC

The LAC, ECEI gateway and ILC share a common purpose of ensuring that people with disability are well supported by mainstream supports and in the community, thus lessening dependence on NDIS funded supports.

For ECEI, an evaluation framework and data collection tool to measure the success of the ECEI gateway has been developed. A review of this approach is currently underway.

For mainstream and community, work is underway to develop indicators to measure community accessibility and inclusiveness. The aim is for these indicators to be aggregated into an index which will allow comparisons between local communities.

1.2.5 Participant and family/carer satisfaction

Since the start of trial, participants have provided anonymous feedback on their experience with the planning process, and this information is contained in the NDIA quarterly reports to the COAG DRC.

A project to enable collection of participant feedback across the whole pathway (access, plan approval, and plan review), and family carer/feedback, was undertaken in late 2017 to early 2018. The resulting questionnaires commenced roll out in September 2018. Results from the broader set of surveys will be included in future reports to the COAG DRC.

1.2.6 Provider sentiment and satisfaction

A provider sentiment and satisfaction survey was developed and piloted with service providers registered in South Australia, over the period December 2017 to January 2018. A final set of 12 questions, including two headline indicators, was rolled out nationally in April 2018, and will be repeated in November 2018.

1.2.7 Participant rating of providers

The outcomes framework will allow investigation of whether improved outcomes for a participant might be due to particular service provider(s). This approach, with the ultimate aim of producing provider league tables, is described in more detail in Section 13.

In addition to provider league tables, participants should be able to rate the service providers that they are receiving supports from. Mechanisms for collecting these data are being explored.

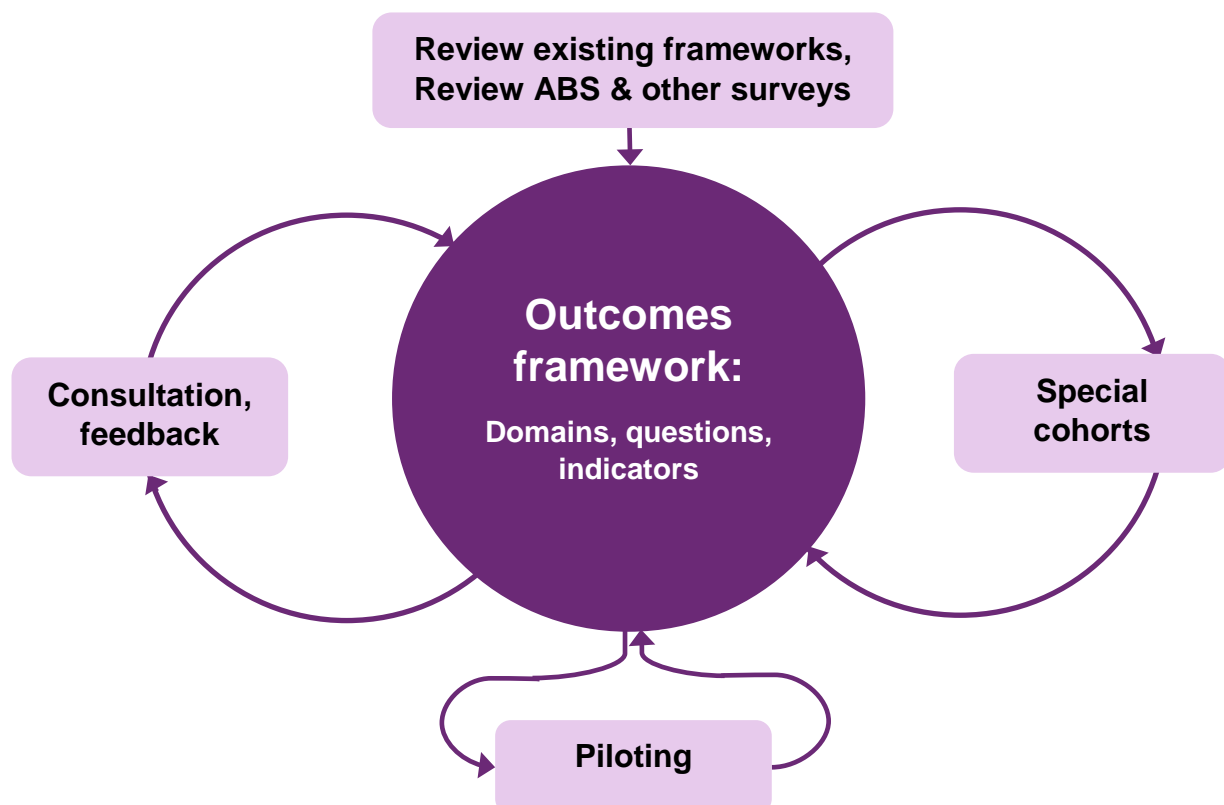
2. Outcomes framework – development and implementation

2.1 Development

The NDIS Outcomes Framework collects information on how participants and their families and carers are progressing in different areas (domains) of their lives. It is used to monitor individual and Scheme progress over time, to help uncover the types of supports that lead to good outcomes, and to benchmark against the experience of other populations (such as people without disability and other OECD countries).

Development of the framework involved a review of existing national and international frameworks, a review of available population data against which to benchmark performance, consultation with a wide range of stakeholders, including the NDIA Independent Advisory Council (IAC), and a pilot of the questionnaires. The process is illustrated in Figure 2.1.

Figure 2.1 Outcomes framework development



Results of the pilot study are publicly available at <https://ndis.gov.au/document/outcomes-framework-pilot>

Leveraging research conducted by the IAC, the outcomes framework takes a lifespan approach to the measurement of outcomes, recognising that different milestones are important for different age groups. Hence different versions of the questionnaires are used, for both participants and families/carers, depending on the age of the participant. The current versions and domains are summarised in Table 2.1.

Table 2.1 Outcomes framework versions and domains for participants and families/carers

Domain	Participant version				Family version, for participant aged		
	Children from 0 to before starting school	Children starting school to age 14	Young adults 15 to 24	Adults 25 and over	0 to 14	15 to 24	25 and over
1	Daily living	Daily living	Choice and control	Choice and control	Families know their rights and advocate effectively for their child with disability	Families know their rights and advocate effectively for their family member with disability	Families know their rights and advocate effectively for their family member with disability
2	Choice and control	Choice and control	Daily living	Daily living	Families feel supported	Families have the support they need to care	Families have the support they need to care
3	Relationships	Lifelong learning	Relationships	Relationship	Families are able to gain access to desired services, programs, and activities in their community	Families are able to gain access to desired services, programs, and activities in their community	Families are able to gain access to desired services, programs, and activities in their community
4	Social, community and civic participation	Relationships	Home	Home	Families enjoy health and wellbeing	Families enjoy health and wellbeing	Families enjoy health and wellbeing
5		Social, community and civic participation	Health and wellbeing	Health and wellbeing			
6			Lifelong learning	Lifelong learning			
7			Work	Work			
8			Social, community and civic participation	Social, community and civic participation			

The pilot was used to refine the questionnaires, including removing redundant questions and revising wording for clarity. It also led to the development of two versions of the questionnaires, a long form (LF), similar to the versions piloted, and a short form (SF). The SF is completed by all participants and a family member or carer where possible, and contains questions useful for planning as well as key indicators to monitor and benchmark over time. The LF is completed for a subset of participants, and includes all of the SF questions plus some additional questions allowing more detailed investigation of participant and family/carers experience, and additional benchmarking.

For both the SF and the LF, the intention is to reinterview participants approximately annually, so that within-individual changes in outcomes can be tracked over time. Ultimately this will result in a rich longitudinal history of outcomes. These longitudinal data will be used to assess how changes in outcomes impact funded supports and overall Scheme costs.

2.2 Implementation

2.2.1 SF – transition

Since the start of transition (1 July 2016), SF data have been collected during the pre-planning stage of the participant pathway and recorded in the CRM. Key indicators for transition participants newly entering the Scheme (“baseline” indicators) have been included in the quarterly reports to the Council of Australian Governments Disability Reform Council (COAG DRC). These reports are publicly available from the NDIS website: <https://www.ndis.gov.au/about-us/information-publications-and-reports/quarterly-reports>.

From 1 July 2017, some transition participants started to accumulate one or more years of experience with the Scheme. For these participants and their families and carers, longitudinal analysis of the change in outcomes is included in this report. Some brief longitudinal analysis was publicly reported for the first time in the COAG DRC report for Q1 2018-19.

For participants who have been in the Scheme for approximately one year or more, the outcomes framework elicits participant and family/carer views on whether the NDIS has helped in areas related to each domain. These results are also included in the COAG DRC reports, for the same cohort of participants as included in the longitudinal analysis, except that participants who say it's their first plan are excluded.

2.2.2 SF – trial

Some SF data were also collected for trial participants, as part of a back-capture exercise conducted over the period November 2015 to July 2016. Interviews with existing participants and their families and carers were conducted by the NDIA National Access Team (NAT) and planning staff, and two external collectors. These participants had been in the Scheme for varying lengths of time at interview, so the indicators do not represent a genuine baseline, and analysis needs to control for length of time in Scheme. Two reports summarising results for trial participants have been prepared and presented to the NDIA Board, but have not yet been publicly released.

2.2.3 LF

The LF baseline is completed for subsets of participants newly entering the Scheme during an annual collection window. Repeat interviews are also conducted for participants recruited in previous years. To date, collection of the LF has occurred in mid-2016, mid-2017, and mid-2018. The design of the LF collection (showing the first three years of data collection) is illustrated in Table 2.2.

Table 2.2 LF collection

Cohort	Data collection year		
	1. 2016	2. 2017	3. 2018
2016 cohort	First interview	Second interview	Third interview
2017 cohort		First interview	Second interview
2018 cohort			First interview

In Table 2.2, the 2016 cohort is the group of participants newly entering the Scheme during the 2016 collection window (approximately July-August 2016) for whom first interviews were

conducted. Second interviews were conducted with these participants during the 2017 collection window (approximately July-August 2017) and third interviews in mid-2018. Similarly, the 2017 cohort is the group of participants newly entering the Scheme during the 2017 collection window. These participants were interviewed a second time during the 2018 collection window, which also saw third interviews collected for the 2016 cohort, and first interviews for the 2018 cohort. It is expected that this strategy will be followed during transition to full Scheme, while the number of new participants is growing appreciably.

LF interviews were conducted by external collectors. Results from analysing the LF data are presented for the first time in this report, including the first two rounds of data collection.

2.3 Numbers of questionnaires

2.3.1 SF transition participants

Numbers of baseline SF questionnaires for transition participants and their families and carers are shown in Appendix A.1, Table A.1, by version, for 2016-17 and 2017-18. These are the questionnaires included for the Q4 2017-18 COAG DRC report, representing active participants with an initial plan approved during the period 1 July 2016 to 30 June 2018.

Table 2.3 summarises numbers of baseline questionnaires collected.

Table 2.3 Baseline SF questionnaires

For the period 1 July 2016 to 30 June 2018:	
Number of participant questionnaires	141,638
Number of family/carers questionnaires	77,746
Total number of questionnaires	219,384
Number of participants contributing at least one participant or family/carers questionnaire	142,061
Number of participants receiving an initial plan	143,959
% of participants receiving an initial plan who contributed at least one participant or family/carers questionnaire	99%

From 1 July 2017, some transition participants started to accumulate one or more years of experience with the Scheme. For this report, active participants who entered the Scheme in 2016-17 and had their plan reviewed in 2017-18, and their families and carers, contribute to the longitudinal analysis. Numbers of questionnaires for this cohort are shown in Appendix A.1, Table A.2. The same cohort contributes to the analysis of questions asking whether the NDIS has helped, except that participants who say it's their first plan are excluded.

Table 2.4 summarises numbers of questionnaires contributing to the longitudinal analysis.

Table 2.4 SF questionnaires contributing to the longitudinal analysis

Questionnaire	Number	% of 2016-17 baseline
Participant	40,154	70%
Family/carers	17,119	70%
Total	57,273	70%

2.3.2 LF

Baseline

Table 2.5 summarises numbers of participants invited to take part in a baseline LF interview, and the numbers who agreed to take part.

Table 2.5 LF year 1 and 2 collections

LF years 1 and 2	2016 cohort	2017 cohort	Combined
Number invited	2,177	3,608	5,785
Number taking part	1,114	2,330	3,444
% taking part	51%	65%	60%
Number providing a family/ carer questionnaire	892	1,832	2,724
% providing a family/ carer questionnaire	80%	79%	79%

2016 cohort second interview

Some of the 2016 cohort participants who were interviewed in 2016 were not able to be re-interviewed in 2017. Reasons for the dropout included refusal, non-contactability, death, or ceasing to be an active participant.

Table 2.6 shows the number of participants agreeing to be re-interviewed, and the number also providing a family/carers questionnaire.

Table 2.6 LF re-interviews of 2016 cohort in 2017

LF re-interviews	2016 cohort
Number taking part at baseline	1,114
Number taking part at review	792
% taking part at review	71%
Number providing family/ carer questionnaire	712
% providing family/ carer questionnaire	90%

Further detail on baseline and longitudinal LF collection is provided in Appendix A.

3. Results overview and LF participation and representativeness analysis

3.1 Overview

The remaining sections of the report present results from analysing the outcomes framework data available as at 30 June 2018. Results are organised with separate sections for each questionnaire version, synthesising analyses from all data sources (SF and LF, baseline and longitudinal).

In view of the large amount of data, to keep the report manageable we have chosen to focus in depth on one or two areas judged to be of particular relevance for each age cohort. High level summaries of results for all questions are included in a separate volume of Appendices.

The remainder of the report is organised as follows:

- Section 3.2 describes sources of information, and Sections 3.3 and 3.4 consider LF participation rates and representativeness by key participant characteristics.
- Sections 4 to 7 contain results for participants from birth to before start school, focusing on childcare and use of specialist services.
- Sections 8 to 10 contain results for participants from starting school to age 14, focusing on education and school experiences.
- Sections 11 to 15 contain results for young adult participants aged 15 to 24, and for adult participants aged 25 and over. These sections focus on employment and community participation.

More detailed results contained in the Appendices include:

- Appendix A: Numbers of questionnaires
- Appendix B: LF participation and representativeness analysis
- Appendix C: Participants from birth to before starting school
- Appendix D: Participants from starting school to age 14
- Appendix E: Participants aged 15 to 24
- Appendix F: Participants aged 25 and over

Appendices C to F contain the following information:

1. Baseline indicators – aggregate
2. Baseline indicators – by participant characteristics
3. Longitudinal change in indicators – aggregate
4. Longitudinal change in indicators – by participant characteristics
5. Perceptions of whether the NDIS has helped – aggregate and by participant characteristics.

3.2 LF participation rates

Unlike the SF, LF participation is voluntary. Hence the degree of representativeness of the LF sample will be affected not only by phasing, but also by differential rates of participation amongst different segments of the participant population.

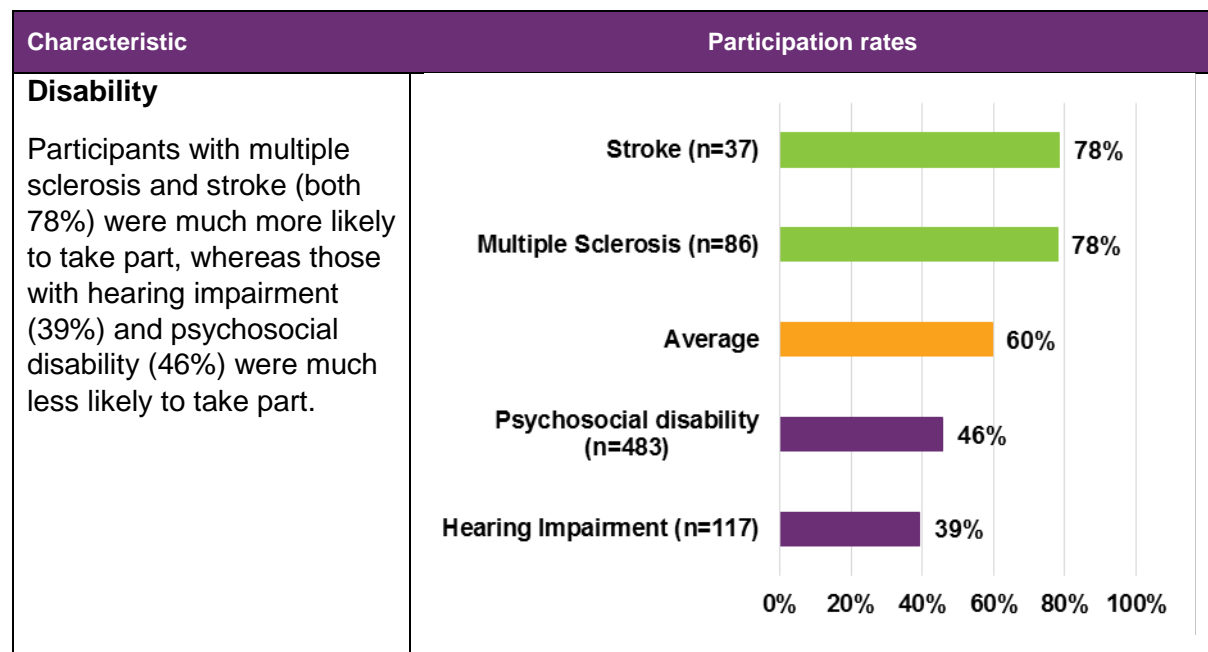
This section investigates rates of participation by participant characteristics. Full details are contained in Appendix B, with key points discussed here.

3.2.1 Baseline

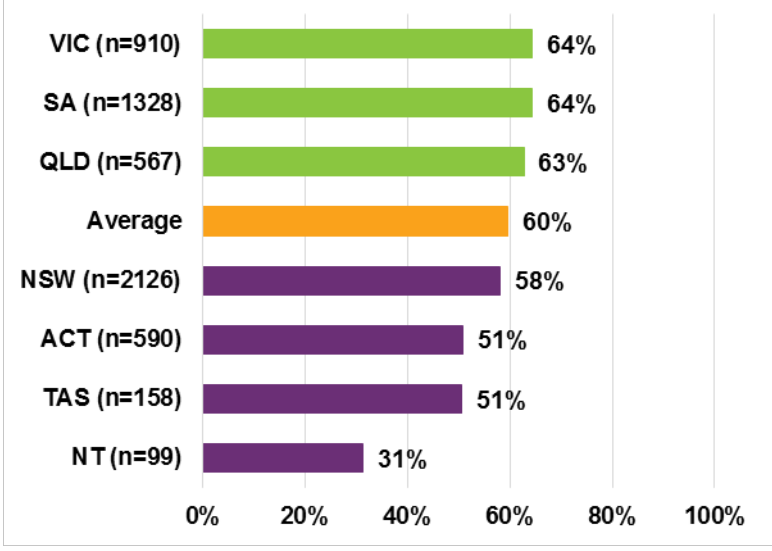
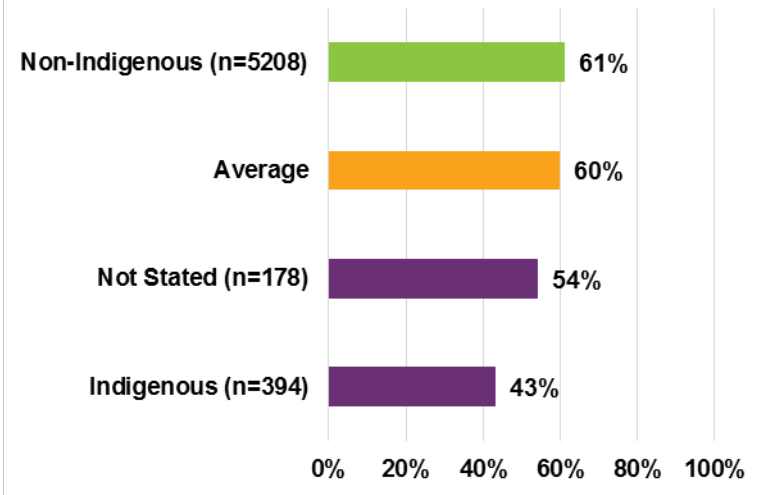
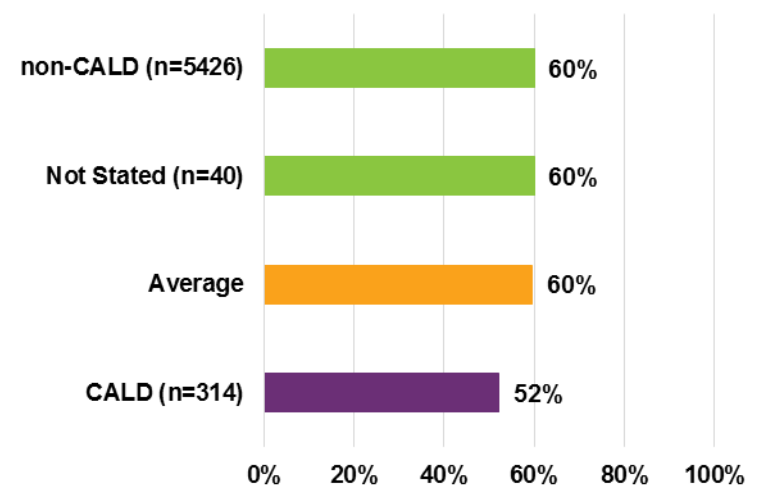
For analysis purposes, first interviews with both the 2016 and 2017 cohorts have been combined to form the LF baseline.

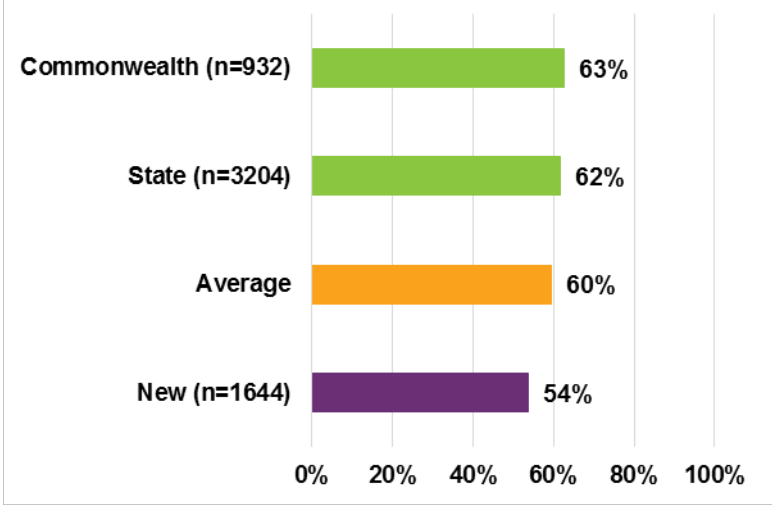
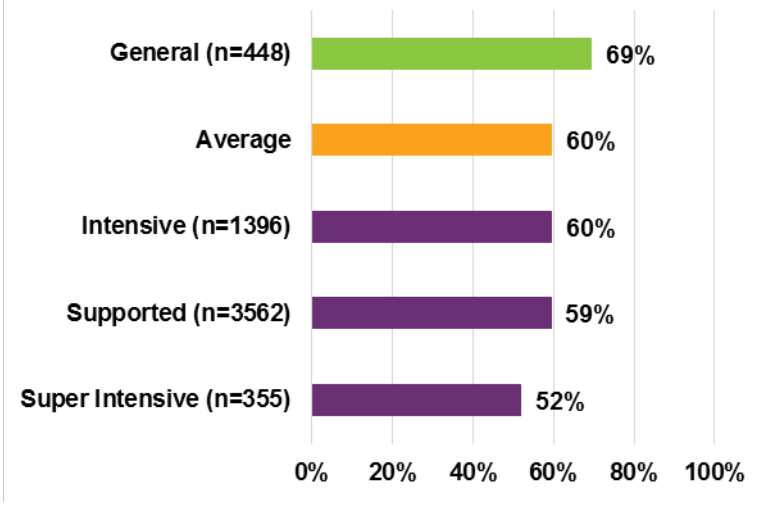
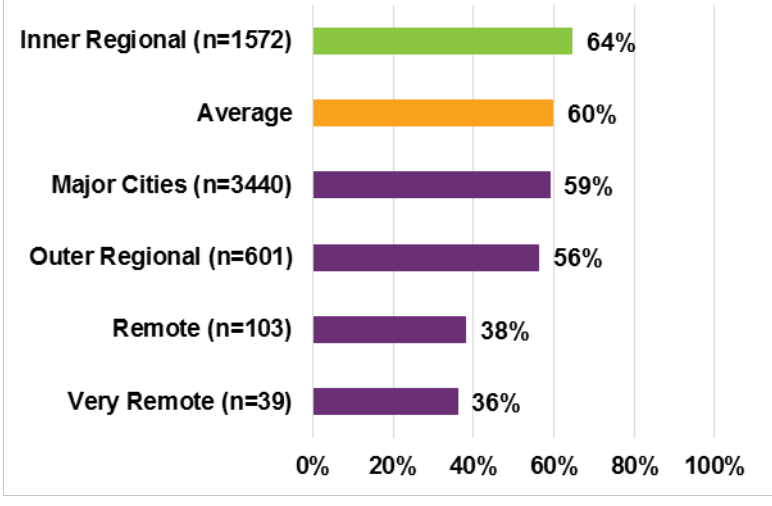
For the combined 2016 and 2017 cohort baseline, 5785 participants were invited to take part and 3444 completed at least one participant or family/carer questionnaire, an overall response rate of 60%.

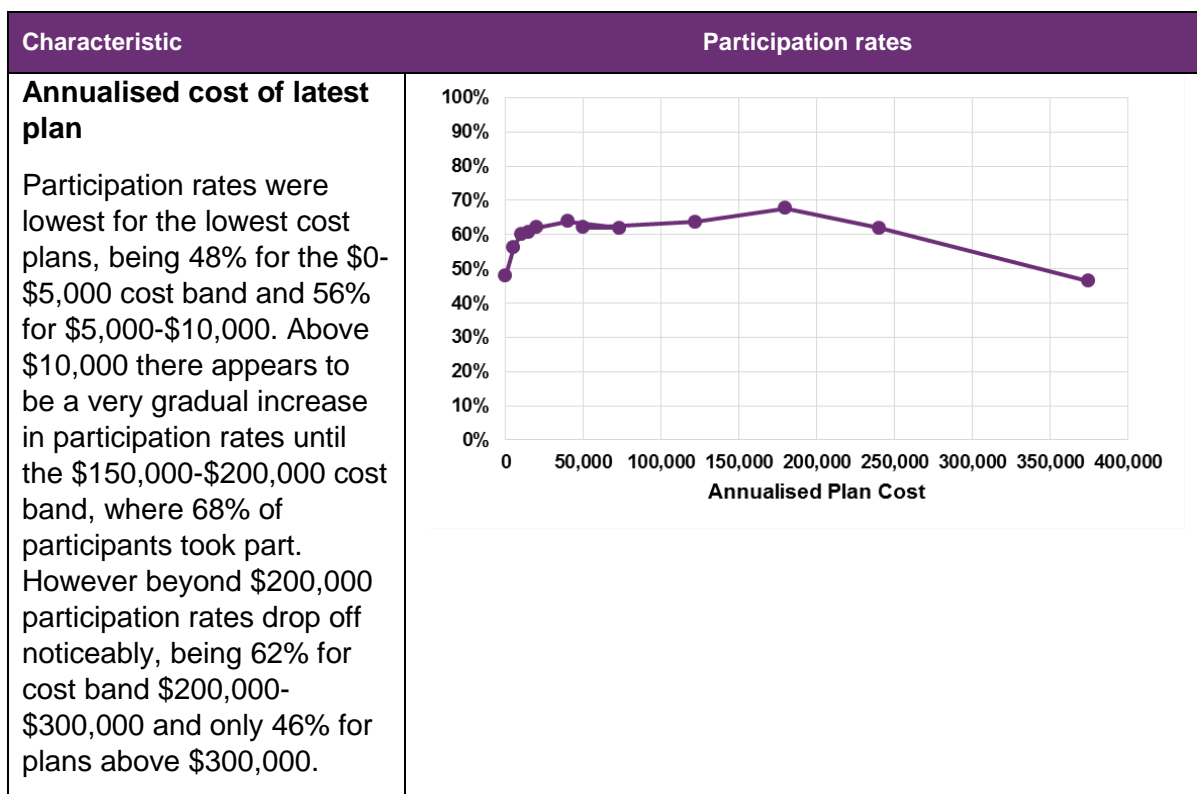
Full details of participation rates by participant characteristics are contained in Appendix B.1. Key findings¹³, focussing on characteristics where differential rates are observed, are summarised below.



¹³ Statistical significance was assessed using a chi-square test with 0.05 significance level.

Characteristic	Participation rates																		
<p>State/Territory</p> <p>Northern Territory participants (31%) were much less likely to participate. Lower participation rates were also observed in the Australian Capital Territory and Tasmania (both 51%). New South Wales (58%) had a slightly lower participation rate and South Australia, Victoria and Queensland slightly higher (63%-64%).</p>	 <table border="1"> <thead> <tr> <th>State/Territory</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>VIC (n=910)</td> <td>64%</td> </tr> <tr> <td>SA (n=1328)</td> <td>64%</td> </tr> <tr> <td>QLD (n=567)</td> <td>63%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>NSW (n=2126)</td> <td>58%</td> </tr> <tr> <td>ACT (n=590)</td> <td>51%</td> </tr> <tr> <td>TAS (n=158)</td> <td>51%</td> </tr> <tr> <td>NT (n=99)</td> <td>31%</td> </tr> </tbody> </table>	State/Territory	Participation Rate	VIC (n=910)	64%	SA (n=1328)	64%	QLD (n=567)	63%	Average	60%	NSW (n=2126)	58%	ACT (n=590)	51%	TAS (n=158)	51%	NT (n=99)	31%
State/Territory	Participation Rate																		
VIC (n=910)	64%																		
SA (n=1328)	64%																		
QLD (n=567)	63%																		
Average	60%																		
NSW (n=2126)	58%																		
ACT (n=590)	51%																		
TAS (n=158)	51%																		
NT (n=99)	31%																		
<p>Indigenous status</p> <p>Indigenous participants were much less likely to participate (43%) than non-Indigenous participants (61%).</p>	 <table border="1"> <thead> <tr> <th>Indigenous status</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>Non-Indigenous (n=5208)</td> <td>61%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>Not Stated (n=178)</td> <td>54%</td> </tr> <tr> <td>Indigenous (n=394)</td> <td>43%</td> </tr> </tbody> </table>	Indigenous status	Participation Rate	Non-Indigenous (n=5208)	61%	Average	60%	Not Stated (n=178)	54%	Indigenous (n=394)	43%								
Indigenous status	Participation Rate																		
Non-Indigenous (n=5208)	61%																		
Average	60%																		
Not Stated (n=178)	54%																		
Indigenous (n=394)	43%																		
<p>CALD status</p> <p>CALD participants were significantly less likely to participate (52%) than non-CALD participants (60%).</p>	 <table border="1"> <thead> <tr> <th>CALD status</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>non-CALD (n=5426)</td> <td>60%</td> </tr> <tr> <td>Not Stated (n=40)</td> <td>60%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>CALD (n=314)</td> <td>52%</td> </tr> </tbody> </table>	CALD status	Participation Rate	non-CALD (n=5426)	60%	Not Stated (n=40)	60%	Average	60%	CALD (n=314)	52%								
CALD status	Participation Rate																		
non-CALD (n=5426)	60%																		
Not Stated (n=40)	60%																		
Average	60%																		
CALD (n=314)	52%																		

Characteristic	Participation rates														
<p>Access Entry Type</p> <p>New participants were significantly less likely to participate (54%) than participants from existing State or Commonwealth programs (62-63%).</p>	 <table border="1"> <thead> <tr> <th>Access Entry Type</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>Commonwealth (n=932)</td> <td>63%</td> </tr> <tr> <td>State (n=3204)</td> <td>62%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>New (n=1644)</td> <td>54%</td> </tr> </tbody> </table>	Access Entry Type	Participation Rate	Commonwealth (n=932)	63%	State (n=3204)	62%	Average	60%	New (n=1644)	54%				
Access Entry Type	Participation Rate														
Commonwealth (n=932)	63%														
State (n=3204)	62%														
Average	60%														
New (n=1644)	54%														
<p>Stream Type</p> <p>There are significant differences by stream type, with participation rates generally decreasing with increasing intensity, from 69% for general, to 59-60% for supported and intensive, to 52% for super-intensive.</p>	 <table border="1"> <thead> <tr> <th>Stream Type</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>General (n=448)</td> <td>69%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>Intensive (n=1396)</td> <td>60%</td> </tr> <tr> <td>Supported (n=3562)</td> <td>59%</td> </tr> <tr> <td>Super Intensive (n=355)</td> <td>52%</td> </tr> </tbody> </table>	Stream Type	Participation Rate	General (n=448)	69%	Average	60%	Intensive (n=1396)	60%	Supported (n=3562)	59%	Super Intensive (n=355)	52%		
Stream Type	Participation Rate														
General (n=448)	69%														
Average	60%														
Intensive (n=1396)	60%														
Supported (n=3562)	59%														
Super Intensive (n=355)	52%														
<p>Remoteness (ARIA)</p> <p>Participation was highest in inner regional areas (64%), followed by major cities (59%) and outer regional areas (56%), and lowest in remote (38%) and very remote (36%) areas.</p>	 <table border="1"> <thead> <tr> <th>Remoteness (ARIA)</th> <th>Participation Rate</th> </tr> </thead> <tbody> <tr> <td>Inner Regional (n=1572)</td> <td>64%</td> </tr> <tr> <td>Average</td> <td>60%</td> </tr> <tr> <td>Major Cities (n=3440)</td> <td>59%</td> </tr> <tr> <td>Outer Regional (n=601)</td> <td>56%</td> </tr> <tr> <td>Remote (n=103)</td> <td>38%</td> </tr> <tr> <td>Very Remote (n=39)</td> <td>36%</td> </tr> </tbody> </table>	Remoteness (ARIA)	Participation Rate	Inner Regional (n=1572)	64%	Average	60%	Major Cities (n=3440)	59%	Outer Regional (n=601)	56%	Remote (n=103)	38%	Very Remote (n=39)	36%
Remoteness (ARIA)	Participation Rate														
Inner Regional (n=1572)	64%														
Average	60%														
Major Cities (n=3440)	59%														
Outer Regional (n=601)	56%														
Remote (n=103)	38%														
Very Remote (n=39)	36%														



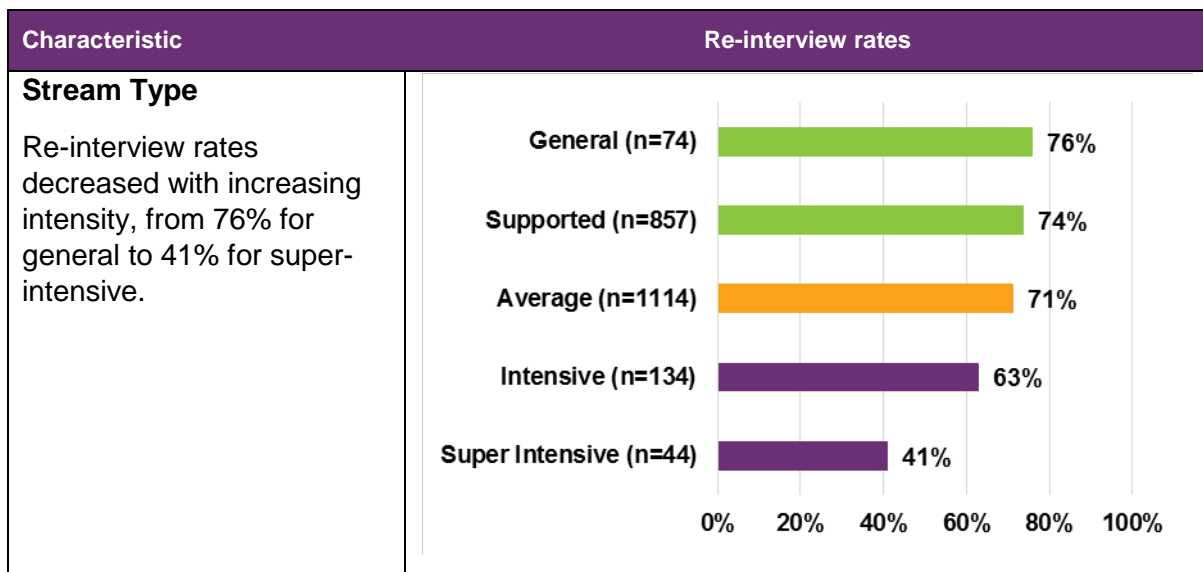
3.2.2 Longitudinal

Starting from the number of 2016 cohort participants who contributed a baseline questionnaire, this section investigates the percentages who agreed to be reinterviewed in 2017.

Overall, 1114 participants from the 2016 cohort contributed at least one participant or family/carer questionnaire at baseline. Of these participants, 792 contributed a follow-up questionnaire in 2017, an overall response rate of 71%.

Full details of participation rates at the second data collection period by participant characteristics are contained in Appendix B.2. Key findings are summarised below.

Characteristic	Re-interview rates																
Disability Re-interview rates were highest for participants with Down syndrome and visual impairment (both 83%), followed by participants with cerebral palsy (82%) or another neurological disability (79%). Rates were lowest for participants with global developmental delay (44%), and also lower for psychosocial disability (61%).	<table border="1"> <thead> <tr> <th>Disability</th> <th>Re-interview rate</th> </tr> </thead> <tbody> <tr> <td>Visual Impairment (n=30)</td> <td>83%</td> </tr> <tr> <td>Down Syndrome (n=24)</td> <td>83%</td> </tr> <tr> <td>Cerebral Palsy (n=45)</td> <td>82%</td> </tr> <tr> <td>Other Neurological (n=42)</td> <td>79%</td> </tr> <tr> <td>Average</td> <td>71%</td> </tr> <tr> <td>Psychosocial disability (n=110)</td> <td>61%</td> </tr> <tr> <td>Global developmental delay (n=16)</td> <td>44%</td> </tr> </tbody> </table>	Disability	Re-interview rate	Visual Impairment (n=30)	83%	Down Syndrome (n=24)	83%	Cerebral Palsy (n=45)	82%	Other Neurological (n=42)	79%	Average	71%	Psychosocial disability (n=110)	61%	Global developmental delay (n=16)	44%
Disability	Re-interview rate																
Visual Impairment (n=30)	83%																
Down Syndrome (n=24)	83%																
Cerebral Palsy (n=45)	82%																
Other Neurological (n=42)	79%																
Average	71%																
Psychosocial disability (n=110)	61%																
Global developmental delay (n=16)	44%																
Indigenous status Re-interview rates were significantly lower for Indigenous participants (53%) compared to non-Indigenous participants (72%).	<table border="1"> <thead> <tr> <th>Indigenous status</th> <th>Re-interview rate</th> </tr> </thead> <tbody> <tr> <td>Not Stated (n=68)</td> <td>79%</td> </tr> <tr> <td>Non-Indigenous (n=970)</td> <td>72%</td> </tr> <tr> <td>Average</td> <td>71%</td> </tr> <tr> <td>Indigenous (n=76)</td> <td>53%</td> </tr> </tbody> </table>	Indigenous status	Re-interview rate	Not Stated (n=68)	79%	Non-Indigenous (n=970)	72%	Average	71%	Indigenous (n=76)	53%						
Indigenous status	Re-interview rate																
Not Stated (n=68)	79%																
Non-Indigenous (n=970)	72%																
Average	71%																
Indigenous (n=76)	53%																
CALD status Re-interview rates were higher for CALD participants (79%) compared to non-CALD participants (71%), although the difference was not statistically significant. Hence, even though a lower proportion of CALD participants responded at baseline, those who did respond were just as likely as non-CALD participants to agree to be re-interviewed.	<table border="1"> <thead> <tr> <th>CALD status</th> <th>Re-interview rate</th> </tr> </thead> <tbody> <tr> <td>CALD (n=52)</td> <td>79%</td> </tr> <tr> <td>Not Stated (n=24)</td> <td>75%</td> </tr> <tr> <td>Average</td> <td>71%</td> </tr> <tr> <td>Non-CALD (n=1038)</td> <td>71%</td> </tr> </tbody> </table>	CALD status	Re-interview rate	CALD (n=52)	79%	Not Stated (n=24)	75%	Average	71%	Non-CALD (n=1038)	71%						
CALD status	Re-interview rate																
CALD (n=52)	79%																
Not Stated (n=24)	75%																
Average	71%																
Non-CALD (n=1038)	71%																



3.3 LF representativeness

Since the LF participants form a subset of participants completing the SF (and should have their answers to the SF questions collected in CRM), it is useful to compare how similar the LF sample is to the complete SF population on demographic characteristics that might affect outcomes. As discussed in Section 3.2, representativeness is affected by phasing and by differential rates of participation amongst different segments of the participant population.

3.3.1 Baseline

On the whole, the LF baseline was fairly representative of the SF baseline, except with respect to jurisdiction, where there are considerable differences largely driven by phasing.

For participants, New South Wales is under-represented in the LF baseline, across all ages but more so for participants under 25. Victoria is over-represented in the 0 to starting school group but under-represented in the 25 and over group. South Australia is under-represented in the 0 to starting school group but considerably over-represented in the older age groups.

For families/carers, New South Wales is considerably under-represented for families/carers of participants under 25, but not for the 25 and over group. South Australia is over-represented across all age groups. For the young age groups this may be partly because parents of children are more likely to respond. Victoria is under-represented for the 25 and over age group, slightly under-represented for 15 to 24, but similar to benchmark for 0 to 14.

Other points of difference were much slighter. For participants, they include the following:

- The LF baseline has a lower proportion of participants with autism compared to benchmark. For children 14 and under, there is a higher proportion with developmental delay, and for adults 15 and over, there is a higher proportion with intellectual disability/Down syndrome.
- For level of function, the comparison differs by age. For children 14 and under, the LF baseline has a higher proportion with high level of function, whereas for adults 15 and over, the LF baseline has a higher proportion with low level of function.
- The percentage of CALD participants is slightly lower than benchmark, however the percentage of participants identifying as Aboriginal or Torres Strait Islander is similar to benchmark.

For families/carers:

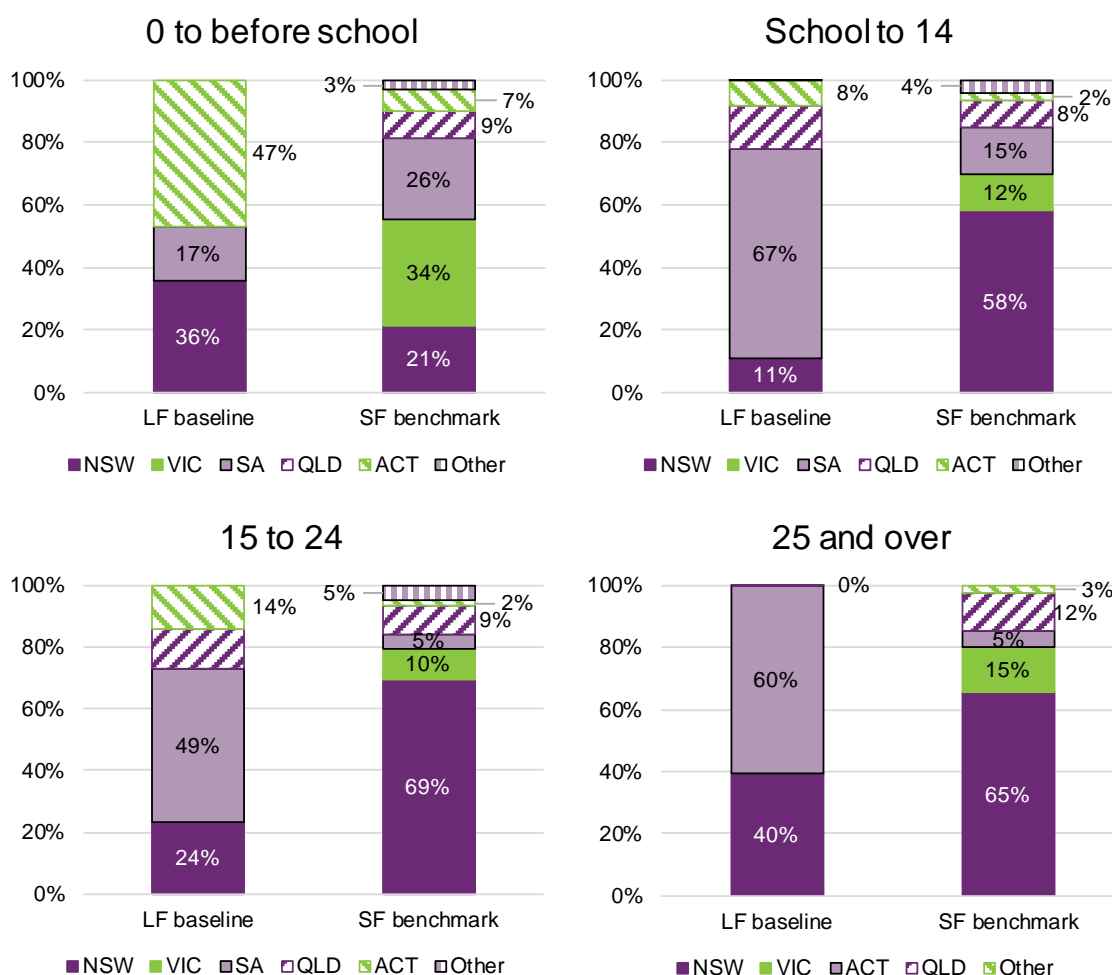
- By primary disability, differences are fairly slight for families/carers of participants aged 0 to 14. For the 15 to 24 age group, the LF has a slightly lower proportion with autism (35% versus 40%) and a slightly higher proportion with intellectual disability/Down syndrome (44% versus 41%). The 25 and over group has a higher proportion with intellectual disability/Down syndrome (51% versus 37%), a similar proportion with autism, and lower proportions for other disabilities.
- There is a slightly lower proportion of CALD participants in the LF baseline, particularly for the 25 and over group (4% versus 10%).

Appendix B.3 provides more information on baseline representativeness.

3.3.2 Longitudinal

As for the LF baseline, the major differences occurred by jurisdiction. These differences are illustrated in Figure 3.1 for each participant version.

Figure 3.1 LF longitudinal cohort compared to SF benchmark, by State/Territory



Other differences for participant questionnaires include:

- By disability, for the 0 to starting school group there is a much lower proportion of participants with autism (6% versus 32%) and a much higher proportion with sensory disabilities (42% versus 13%). Differences for the other age groups are less pronounced.

- By level of function, for the 0 to starting school group the LF has a much higher proportion with high level of function (89% versus 69%). Differences for the other age groups are less pronounced.
- By annualised cost of latest plan, overall the distribution of LF participants tends to be skewed towards lower cost plans compared to the SF benchmark.

Further discussion of representativeness for the longitudinal cohort is provided in Appendix B.4.

As seen above, there are some characteristics for which the LF baseline and longitudinal samples differ from benchmark. For many characteristics though, the LF baseline and longitudinal data are sufficiently similar to benchmark that the results produced should be fairly representative of the whole Scheme. Future rounds of LF collection can be targeted in such a way as to reduce observed imbalances, and sample weighting can be considered for analyses where closer representativeness is desired.

4. Participants from birth to before starting school: overview of results

4.1 Key findings

Box 4.1: Key findings for participants from birth to before starting school

- In the longitudinal analysis, significant improvements were observed across a number of indicators¹⁴, particularly in the areas of:
 - Communication: the percentage who say their child is able to tell them what he/she wants has increased by 9.4%, from 70.2% at baseline to 79.6% approximately one year later.
 - Making friendships: the percentage of children who can make friends with people outside the family has increased by 5.8% (from 61.6% to 67.4%), and the percentage who have friends that they enjoy playing with has increased by 10.6% (from 46.7% to 57.3%).
 - Participating in family life and community activities: the percentage who say their child fits in with the everyday life of the family has increased by 5.6% (from 67.1% to 72.7%), and the percentage of those participating in community, cultural or religious activities who feel welcomed has increased by 6.0% (from 63.6% to 69.6%).
- Understandably, their child's progress in major developmental areas is a key concern of parents and carers. From the longitudinal analysis, the proportion of parents/carers expressing concern about their child's development in six or more of eight areas surveyed has increased by 6.5%, from 60.8% to 67.3%.
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Participants with a hearing impairment generally experience better outcomes than those with other disabilities, both baseline and longitudinal.
- Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, children in regional and remote areas are more likely to improve in their ability to tell their parents/carers what they want, and in their ability to make friends outside the family.
- Indigenous children tend to exhibit slightly worse outcomes at baseline. They are also less likely to live with their parents than non-Indigenous children, and more likely to live in public housing. For longitudinal change, small numbers make it difficult to identify differences.
- Baseline outcomes for children from a CALD background are mixed. They are more likely to live with their parents, and parents/carers are less likely to express concerns about their child's development, however they tend to fare worse on some of the relationship and participation indicators. For longitudinal change, small numbers make it difficult to identify differences.

¹⁴ Note that at least some of the observed change may be attributable to normal age-related development, since the children will be one year older at the second time point.

Box 4.1: Key findings for participants from birth to before starting school (continued)

- NDIS participants' use of childcare appears to be lower than for the general population, and participants with higher/complex needs are less likely to attend childcare. Higher use of specialist services tends to be associated with increased use of childcare. Participation in community and the ability to make friends are also associated with increased use of childcare: these attributes could be either a driver of childcare use (parents/carers feel more comfortable sending their child to childcare once they have the necessary social skills) or an outcome of using childcare (use of childcare fosters social skills).
- Use of specialist services is widespread amongst NDIS participants. Usage has increased between baseline (72%) and review (90%). Increases are observed for both existing and new participants, but more so for new participants. Satisfaction with specialist services is high, and has also increased between baseline and review. Early intervention participants are more likely to use specialist services. Participants with a developmental delay, those living in South Australia, and those living in a high unemployment Local Government Area, are less likely to use specialist services.
- Opinions on whether the NDIS has helped tend to be positive for this cohort. In particular, there is widespread agreement that the NDIS has helped in areas related to the child's development (91%) and access to specialist services (89%). Higher baseline plan utilisation is a strong predictor of a positive response across all five areas surveyed. Participants entering the Scheme for early intervention are more likely to think that the NDIS had helped than those entering due to disability.

4.2 Results overview

4.2.1 Outcomes framework questionnaire domains

For children in the pre-school age range, the outcomes framework seeks to measure the extent to which participants are:

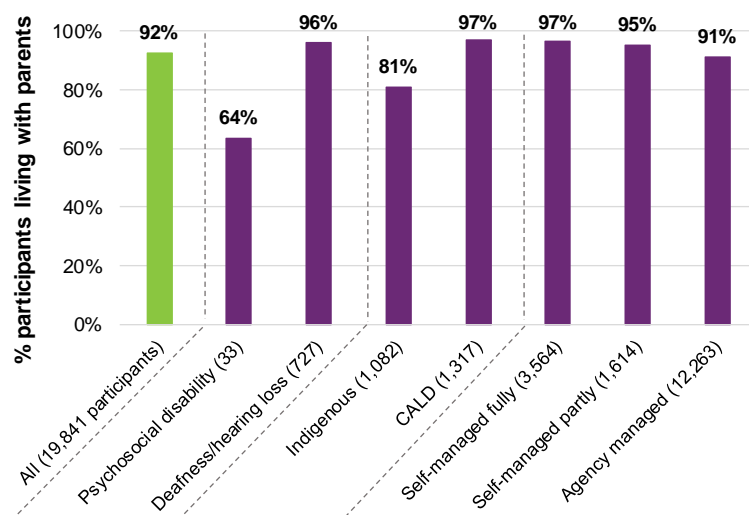
- Gaining functional, developmental and coping skills appropriate to their ability and circumstances
- Showing evidence of autonomy in their everyday lives
- Participating meaningfully in family life
- Participating meaningfully in community life
- Using specialist services that assist them to be included in families and communities.

The LF includes 11 extra questions related to childcare, four related to specialist services, three about developmental/coping skills, two about effects on family, and one about developing autonomy.

4.2.2 Participant living arrangements

Overall, 92% of children live with their parents. 3% live with other family members and 2% with non-relatives, such as foster carers. The percentage living with their parents is much lower for the small number of participants with a psychosocial disability (64% of the 33 participants) and higher for those with deafness/hearing loss (96%). Indigenous children are less likely to live with their parents (81%), however children from a culturally and linguistically diverse background are more likely to do so (97%). Children whose plan is self-managed, either partly or fully, are more likely to live with their parents (95-97% compared to 91% for agency-managed).

Figure 4.1 Proportion of participants living with parents



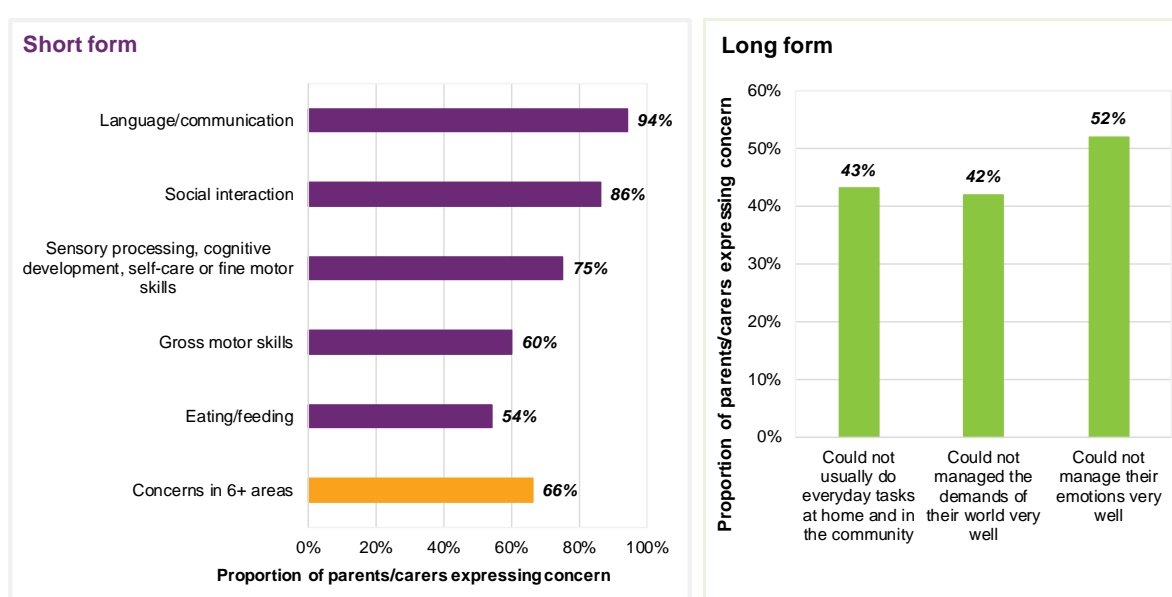
Most participants (89%) are in a private home either owned or rented from a private landlord. 8% of participants live in a private home rented from a public authority, but this percentage is much higher for Indigenous participants (29%) and in the Northern Territory (60%).

4.2.3 Baseline indicators – aggregate

Areas of development

The SF asks parents/carers whether they have concerns about their child's development in eight different areas (multiple areas can be chosen). For each of the eight areas surveyed, more than half of parents/carers expressed concerns at baseline. The area with the highest level of concern was language/communication, where 94% of parents/carers had concerns, followed by social interaction (86%). Around three-quarters had concerns with sensory processing, cognitive development, self-care or fine motor skills. Lower proportions had concerns regarding gross motor skills (60%) or eating/feeding (54%). Most parents/carers had concerns in multiple areas, with 66% expressing concerns in six or more of the eight areas.

Figure 4.2 Proportion of parents/carers expressing concern



The LF asks parents/carers whether their child can usually manage their emotions, and the demands of their world. At baseline, 52% thought that their child could not manage their emotions very well, and 42% thought that they could not manage the demands of their world very well. 43% thought that their child could not usually do everyday tasks at home and in the community.

Autonomy

Most children exhibited evidence of growing autonomy, with 74% of SF respondents saying that their child was able to tell them what they want, and 89% of LF respondents saying that their child takes action once they have decided to do something.

In relation to family life, 55% of parents/carers think there is enough time to meet the needs of all family members. 55% of those with more than one child expressed some concern about the effect of having a sibling with disability on their other children. However, 80% say that their child with disability gets along with their siblings. Overall, 66% say that their child fits into everyday family life. Evidence of integration into family life is provided by children assisting their parents/carers with tasks at home (74%) and outside the home (81%). 64% of children are able to make friends with people outside the family.

Childcare

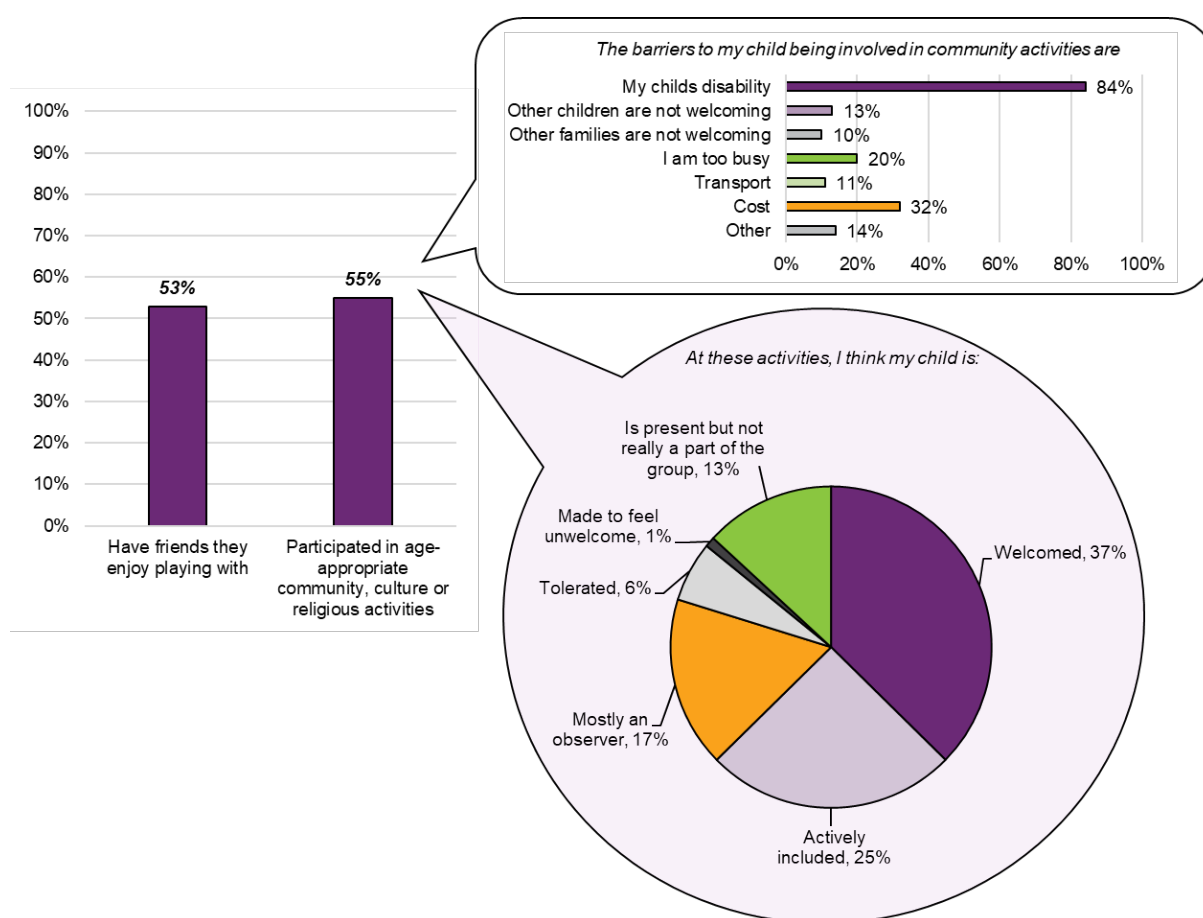
The LF includes a number of extra questions related to childcare. For this relatively small cohort of 320 participants, 55% used some form of childcare. It was not uncommon for parents/carers to experience a lot of difficulty in finding good quality childcare (21%), finding the right person to take care of their child (18%), and finding childcare at short notice (30%). The most common form of childcare used was centre-based, including family day care, long day care, or any other care at a childcare centre. 78% of parents/carers used this form of childcare either while at work or while not at work, with a higher proportion using it while at work (53%) than while not at work (37%).

Children's experiences at childcare were generally positive, with 94% of those using group childcare saying that other children and other families were welcoming, 90% thinking that their child was asked to do tasks at an appropriate level, and 97% feeling that their cultural heritage was respected (where applicable). Evidence of childcare services working together with the parent/carer to support the child was less strong, with 76% thinking the childcare helped them assist their child, 65% thinking they involved them in planning for their child, and 56% saying they helped them to plan for the future. 57% thought their childcare service was being assisted by their early intervention service (where applicable) to support their child.

Participation

Evidence of social and community participation outside childcare comes from the SF. 53% of children have friends they enjoy playing with, most often at social or family gatherings (57%) or pre-school (52%). 55% of children participated in age-appropriate community, cultural or religious activities, with 62% of parents/carers feeling that their child was welcomed or actively included in these activities. 77% of parents wanted their child to be more involved in community activities, with 84% perceiving their child's disability as a barrier to being more involved. Community activities appear less welcoming than childcare, with barriers to greater involvement including non-welcoming behaviour of other children (13%) or other families (10%). Cost is also a considerable barrier (32%).

Figure 4.3 Social and community participation, barriers and inclusion



Specialist services

About three-quarters of children use specialist services (such as speech pathology, occupational therapy) to assist their learning and development. From the SF, 93% thought that these services helped their child's skill development and 93% thought they supported them to assist their child. From the LF, 97% thought that the services involved them, 93% that they respected the family/carers' cultural heritage, and 86% that they helped plan for the future. However the percentage thinking that the services assisted staff at their child's other activities (such as childcare/pre-school) to support their child was lower, at 61%.

4.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple logistic regression modelling. Key findings from these analyses include:

- Level of function**

Baseline indicators are generally better for participants with higher level of function. An exception is the percentage of families/carers using childcare while not at work, which is similar for children with high, medium and low levels of function. However the percentage using childcare while at work decreases with level of function, from 67% for children with high level of function, to 47% for those with low level of function, probably reflecting decreasing employment rates for parents/carers with child's level of function. Whilst use of specialist services is more prevalent amongst children with low

levels of function (81% compared to 74-77% for medium and high levels of function), satisfaction with services is similar (93%).

- **Disability**

By disability, developmental concerns are highest amongst children with Down syndrome and global developmental delay, and lowest by a considerable margin for children with deafness/hearing loss. Children with autism are much less likely to be able to make friends outside the family than children with other disability types. Participation in community, cultural or religious groups is lowest for children with global developmental delay, and these children, together with those with autism, are the least likely to be welcomed or actively included in these activities. Children with deafness/hearing loss and those with Down syndrome have better participation outcomes. Children with autism are less likely to get on with their siblings, and from the LF, parents/carers of children with autism are more likely to be worried about the effect on their other children of having a sibling with disability.

- **Culturally and linguistically diverse backgrounds**

Controlling for other factors, parents/carers of children from a culturally and linguistically diverse background are less likely to have concerns in six or more developmental areas than those from a non-CALD background. However, children from a CALD background are much less likely to be able to communicate what they want, to make friends outside the family, and to be welcomed in community activities. Whilst based on small numbers, LF responses also suggest that children from a CALD background are less likely to be able to manage their emotions and the demands of their world, and to be able to do everyday tasks. Children from a CALD background are also less likely to join in tasks within and outside the home, and less likely to fit into family life. However (based on smaller numbers in the LF), parents/carers of children from a CALD background are more likely to think there is enough time to meet the needs of all family members, and less likely to express concerns about the effect of the child's disability on siblings.

- **Indigenous**

Indigenous children also have different experiences on some indicators, and generally slightly worse than non-Indigenous children. For example, controlling for other factors in a multiple regression model, Indigenous children are less likely to participate in community, cultural or religious activities, and less likely to be welcomed or actively included when they do.

- **Age**

Some trends by age reflect normal childhood development. For example, the percentage who say their child can tell them what they want increases with age. Older children are also more likely to make friends outside the family, to have friends they enjoy playing with, and to participate in community, cultural or religious activities. However, between the ages of 0 and 4, the likelihood of being welcomed or actively included in these activities declines with age. Parents/carers of older children are more likely to want their child to be more involved in community activities, and more likely to see their child's disability as a barrier to greater involvement. Use of specialist services tends to increase with the child's age.

- **Gender**

In multiple regression models, parents/carers of girls are less likely to have concerns in six or more of the eight areas surveyed, and girls are more likely to participate in community, cultural or religious activities.

- **Geography**

Children from regional and remote locations show more positive results on some indicators. For example, parents/carers are less likely to have concerns in six or more of the eight areas surveyed, their children are more likely to be able to tell them what they want, and are more likely to make friends outside the family. Use of specialist services is less prevalent in outer regional/remote/very remote locations, being 69% compared to 76% for less remote locations.

- **Relationships**

Integration into family life (fitting into family life, joining in completing tasks within and outside the home), and friendships (the ability to make friends outside the family, and having friends to play with) are associated with better outcomes on key indicators.

4.2.5 Longitudinal indicators – aggregate

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants entering the Scheme in the first year of transition (from 1 July 2016 to 30 June 2017) for whom a record of outcomes is available at two time points: at scheme entry and at approximately one year following scheme entry.

As expected during this relatively short period, many indicators have not changed a great deal. For this summary we select indicators based on a combination of statistical significance and magnitude of change^{15,16}.

Table 4.1 summarises changes for the 13 selected indicators.

Table 4.1 Selected longitudinal indicators for participants from birth to before starting school

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
SF	2	% who say their child is able to tell them what he/she wants	70.2%	79.6%	9.4%	Improvement
SF	3	% of children who can make friends with people outside the family	61.6%	67.4%	5.8%	Improvement
SF	3	% of parents/carers who say their child joins them when they complete tasks at home	74.3%	77.4%	3.1%	Improvement
SF	3	% who say their child fits in with the everyday life of the family	67.1%	72.7%	5.6%	Improvement
SF	4	% of children who have friends that they enjoy playing with	46.7%	57.3%	10.6%	Improvement
SF	4	Of those who participate in community, cultural or religious activities, % who are welcomed or actively included	63.6%	69.6%	6.0%	Improvement
SF	5	% who say specialist services help their child gain skills to participate in everyday life	88.7%	95.1%	6.5%	Improvement

¹⁵ Since there is much more data available for the SF, with more than 2000 participants contributing to the analysis, statistical testing would identify indicators where the magnitude of change is unimportantly small, so we only consider SF indicators where the absolute magnitude of change in the indicator is greater than 0.02 (all of these changes are statistically significant). For the LF, where the quantity of data is much smaller (less than 70 participants), selection is based on statistical significance.

¹⁶ Note that at least some of the observed change may be attributable to normal age-related development, since the children will be one year older at the second time point.

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
SF	5	% who say specialist services support them to assist their child	89.1%	95.6%	6.5%	Improvement
SF	4	% who say they would like their child to be more involved in community activities	68.4%	76.1%	7.7%	Context dependent
SF	5	% who use specialist services	73.1%	90.1%	16.9%	Context dependent
SF	1	% with concerns in 6 or more of the areas: gross motor skills, fine motor skills, self-care, eating, social interaction, communication, cognitive development, sensory processing	60.8%	67.3%	6.5%	Deterioration
LF	3	% who say there is enough time each week for all members of their family to get their needs met	70.3%	48.4%	-21.9%	Deterioration
SF	4	Of those who would like their child to be more involved in community activities, % who see their child's disability as a barrier	80.7%	84.6%	3.9%	Deterioration

Key findings from Table 4.1 include:

- More children are able to communicate what they want, however this would be expected for children who are one year older.
- Making friendships, and participation in family life and community activities, has improved. The use of informal childcare, such as relatives, friends and neighbours, may also reflect improvement in relationships outside the immediate family.
- Use of specialist services has increased markedly (possibly due to new entrants to the Scheme), as has satisfaction with those services.
- Three indicators exhibit significant deterioration. More parents/carers have concerns in six or more of the eight areas surveyed, fewer feel there is enough time to meet the needs of all family members, and more see their child's disability as a barrier to greater involvement in community activities.

4.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses modelling improvement (or sometimes deterioration) in the indicator. That is, for the subset without the indicator at baseline, the probability of meeting the indicator at review is modelled as a function of participant characteristics.

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below.

My child is able to tell me what he/she wants (overall improvement of 0.094)

Based on the logistic regression model for improvement:

- The likelihood of improvement decreased with level of function, and as plan cost increased from \$20,000 to \$50,000.
- Girls were less likely to improve than boys.
- Participants from SA and NSW, and those from regional and remote areas, were more likely to improve.
- The likelihood of improvement increased from birth to age 4, then declined between ages 5 and 6.
- Participants coming in from an existing State scheme were less likely to improve.
- Children participating in community activities, and those joining in tasks at home, were more likely to improve. However, respondents using childcare were less likely to improve.

My child can make friends with people outside the family (overall improvement of 0.058)

Based on the logistic regression model for improvement, the likelihood of improvement decreased with level of function, and as plan cost increased from \$10,000 to \$15,000. Participants from regional and remote areas were more likely to improve.

My child participates in age-appropriate community, cultural or religious activities, and at these activities I think my child is welcomed or actively included (overall improvement of 0.060)

Based on the logistic regression model for improvement, the likelihood of improvement decreased with level of function. Girls were more likely to improve than boys, and participants from NSW were more likely to improve than those from other States/Territories.

Percentage with concerns in six or more areas (overall deterioration of 0.065)

Based on the logistic regression model, deterioration was more likely for participants with lower level of function and those with autism or global developmental delay, and less likely for those with a hearing impairment. Deterioration was more likely for older participants. Participants in ACT, and those entering the Scheme through early intervention, are less likely to exhibit deterioration. Increasing cost of baseline plan, and utilisation, are associated with increased likelihood of deterioration. Participants who are welcomed in community activities, and those who can make friends outside the family, are less likely to experience deterioration.

Use of specialist services (overall increase of 0.169)

Multiple regression analysis of usage at review, controlling for usage at baseline, found lower usage for SA and higher usage for early intervention participants. Additionally, participants with developmental delay or global developmental delay, and those living in an area with high unemployment, were found to be less likely to increase their use of specialist services.

5. Participants from birth to before starting school: childcare

5.1 Key findings

Box 5.1: Key findings for participants from birth to before starting school: childcare

- Based on the SF questionnaire, the percentage of parents/carers who used childcare for children under 5 was 66%. This is significantly lower than the age-adjusted population benchmark estimated using the Household, Income and Labour Dynamics in Australia (HILDA)¹⁷ survey (76%).
- The most common form of childcare was centre-based childcare (used by 85% of those who used childcare), followed by a relative who doesn't live with the family (26%).
- Compared to the general population, parents/carers of NDIS participants are more likely to use all forms of child care while not at work. This may be due to parents/carers using childcare in order to have a break.
- Parents/carers of NDIS participants are found to be more likely to have no difficulties in accessing childcare compared to parents/carers in the general population: 53% said they had no difficulty finding good quality childcare compared to 43% for HILDA; 52% said they had no difficulty finding the right person to care for their child compared to 39% for HILDA; and 55% said they had no difficulty finding childcare at short notice compared to 25% for HILDA. However, NDIS participants are slightly more likely to face a lot of difficulties finding good quality childcare (17% versus 13%) and finding the right person to care for their child (15% versus 13%).
- The results of the regression analysis suggest that parents/carers of children with disabilities that have relatively higher needs are less likely to use childcare. This relationship may reflect a lack of training or resources available for childcare providers to support children with high needs disabilities.
- There was a significant positive relationship between use of specialist services and use of childcare.
- Participation in the community and the ability to make friends were found to be positively correlated with childcare use. Parents/carers may feel more comfortable sending their child to childcare once the child has developed necessary social skills through interactions with friends or in the community. On the other hand, by fostering better social skills, childcare usage may be the cause rather than the effect of increased community participation and improved ability to make friends.

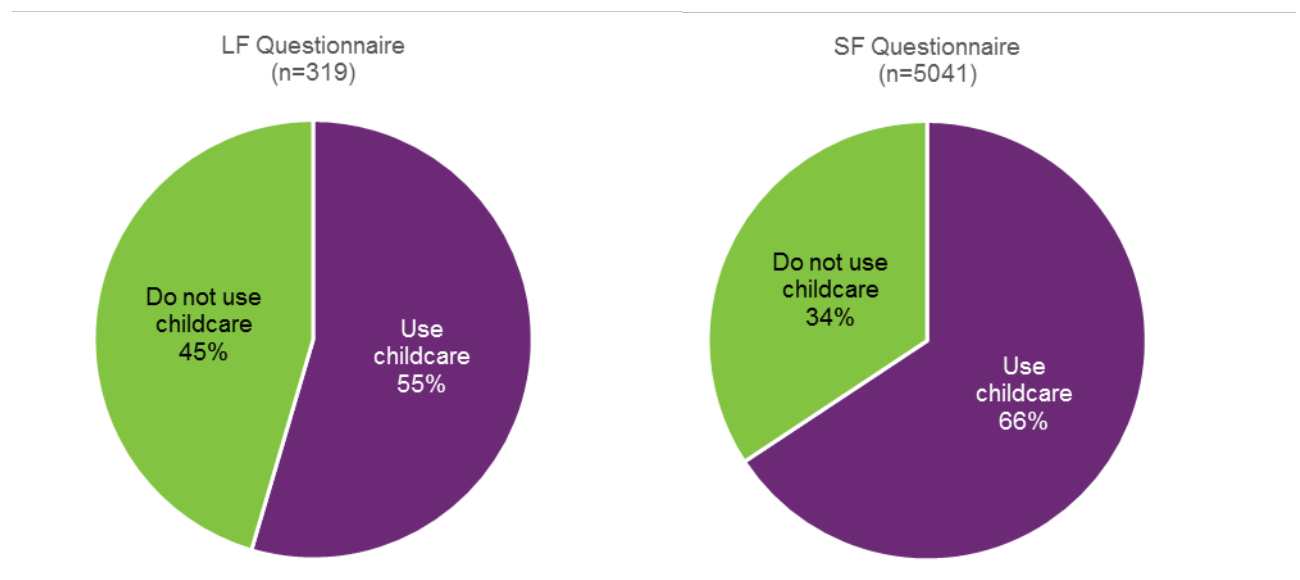
¹⁷ <https://melbourneinstitute.unimelb.edu.au/hilda>

5.2 Background and overall results

Childcare forms part of the mainstream early childhood support system for children with disabilities and their families and carers. The inclusion of children with disabilities in childcare services can lead to improved social and personal development for children, and offers respite for families and carers to maintain their wellbeing, and participate in the workforce and/or community¹⁸.

In the Social, Community and Civic Participation domain of the LF questionnaire and the SF questionnaire, the parents and carers of participants aged 0 to before starting school are asked 'Do you use any form of childcare?' The percentage of parents/carers who reported that they were using childcare at the time of their child's baseline plan¹⁹ is illustrated in Figure 5.1 for each version of the questionnaire.

Figure 5.1 Childcare usage at baseline plan, by questionnaire type



The use of childcare by the cohort of parents and carers who complete the LF questionnaire may not be representative of childcare usage by the general NDIS population, as captured in the SF questionnaire. In particular, given the LF questionnaire is conducted by phone during office hours, it may be biased towards parents or carers who spend more time in the home e.g. do not have full time paid work. The LF questionnaire also has a lower proportion of participants located in NSW (42% for SF, 27% for LF)²⁰ and childcare usage at baseline is found to be significantly higher in NSW compared to other States/Territories (see Section 5.4).

¹⁸ Ministerial Advisory Committee: Students with Disabilities. 2009. Families' experience of childcare services for their children with a disability or additional needs p6

¹⁹ For SF questionnaire, only includes participants with baseline plans from 18 September 2017 onwards due to a system issue with the SF questionnaire prior to this date.

²⁰ See Appendix B.

5.3 Comparison to population benchmark

The usage of childcare services by parents and carers of NDIS participants can be compared to the general population using the Household, Income and Labour Dynamics in Australia ('HILDA') Survey. The HILDA Survey is a longitudinal study that collects information from over 17,000 Australian households over the course of their lifetime²¹. The childcare questions in the LF questionnaire and SF questionnaire have been designed to be analogous to the HILDA Survey.

The HILDA Survey reports on childcare usage for children who have not yet attended school, where this is determined as children aged less than 5 years old. To compare the experience of NDIS participants on a like-for-like basis, only participants aged less than 5 years old at the time of their baseline plan have been included in the benchmark comparison. The age distributions of the NDIS and HILDA survey cohorts are illustrated in Figure 5.2. NDIS participants are much more concentrated at the older ages, whereas the HILDA Survey is more uniformly distributed across age groups. Given that age has a significant impact on usage of childcare (see Section 5.4), an age-adjusted benchmark has been calculated for the HILDA Survey reflecting the age distribution of the SF questionnaire.

Figure 5.2 Age distribution of NDIS and HILDA survey cohorts

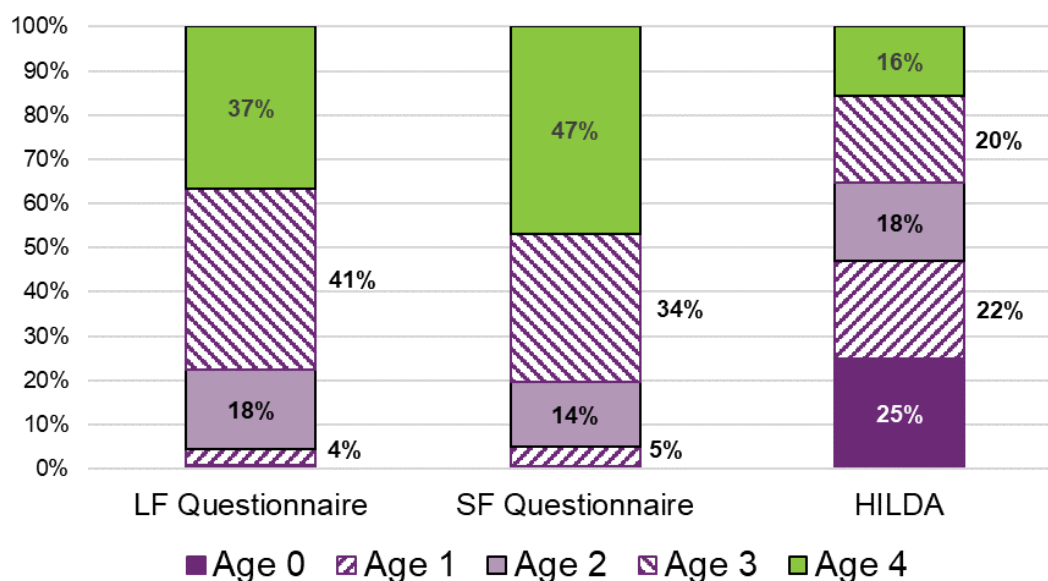


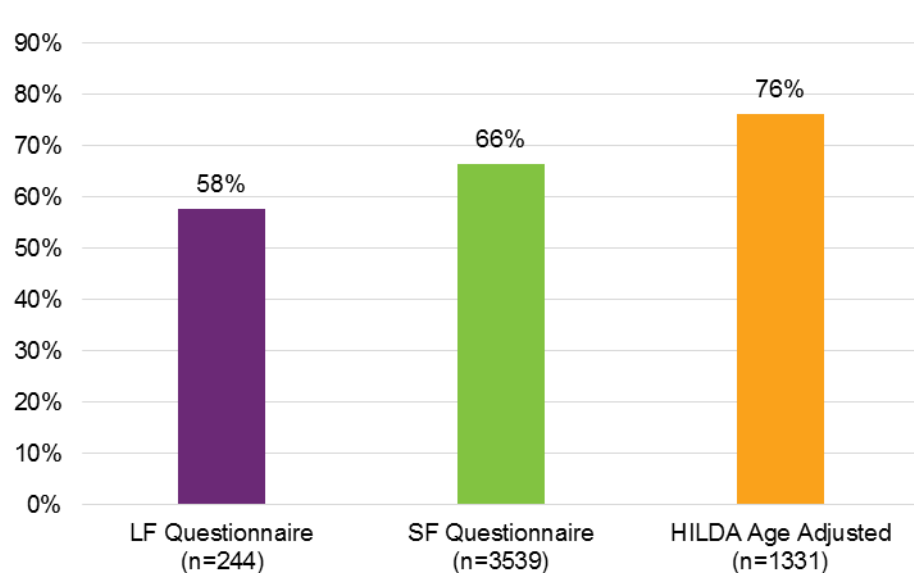
Figure 5.3 illustrates the percentage of parents and carers who use childcare according to each survey. Compared to results without age-adjustment, the difference in reported childcare usage reduces when comparing the SF questionnaire and the age-adjusted HILDA Survey, but the SF questionnaire response rate still remains significantly lower²². This

²¹ HILDA Survey website <https://melbourneinstitute.unimelb.edu.au/hilda>

²² Chi-square test of independence, $p < 0.0001$

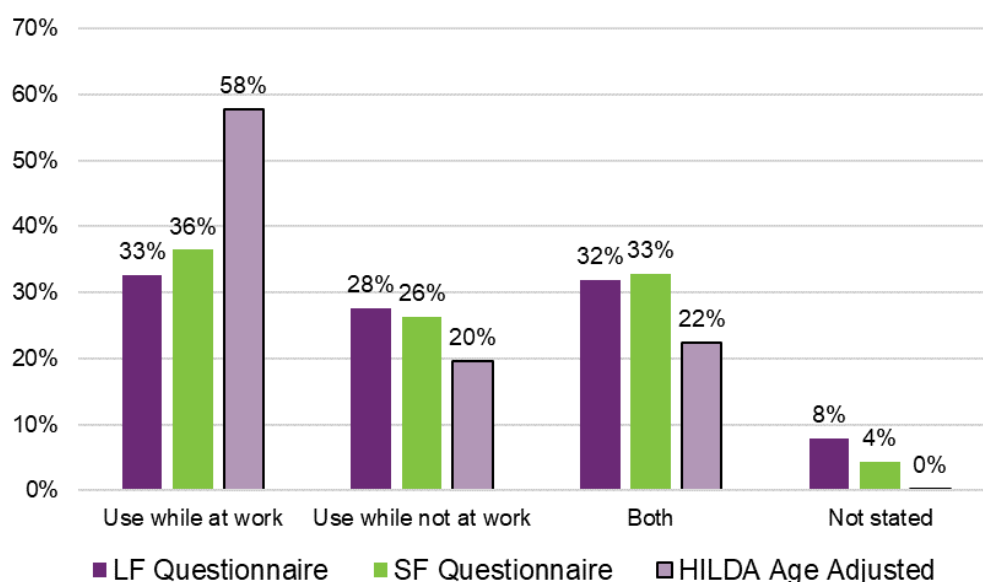
suggests that, on average, the parents/carers of NDIS participants are accessing childcare at a lower rate than the general population.

Figure 5.3 Percentage of parents/carers of participants aged under 5 who use childcare, comparison to population benchmark



In each survey, parents and carers who report that they use childcare are also asked to specify the types of childcare they used, and whether it was used while they were at work, while they were not at work, or both. Figure 5.4 shows when parents and carers use childcare according to each survey.

Figure 5.4 When childcare is used, comparison to population benchmark



Parents and carers of NDIS participants are more likely to use childcare while not at work than the general population, as represented by the age-adjusted HILDA Survey. This may reflect that the parents and carers of NDIS participants are less likely to be employed or are working fewer hours than the general population. In addition, childcare plays an important role in allowing parents and carers of children with disabilities to have a break, regardless of whether the parent or carer is currently employed.

Figure 5.5 compares the types of childcare used while the parent/carer is at work and Figure 5.6 shows the types of childcare used while the parent/carer is not at work.

Figure 5.5 Types of childcare used while at work, comparison to population benchmark

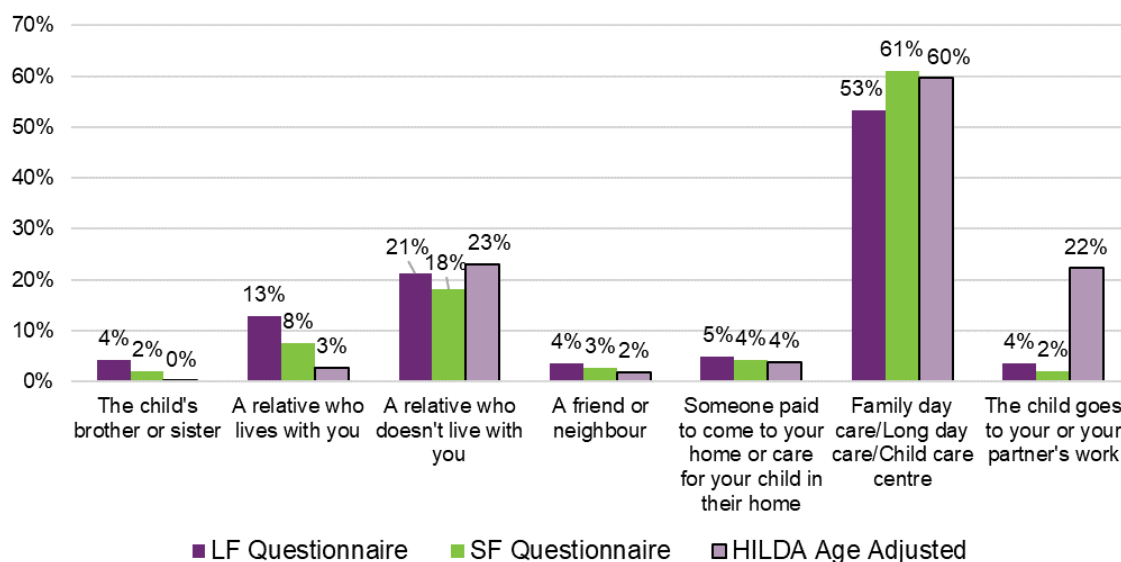
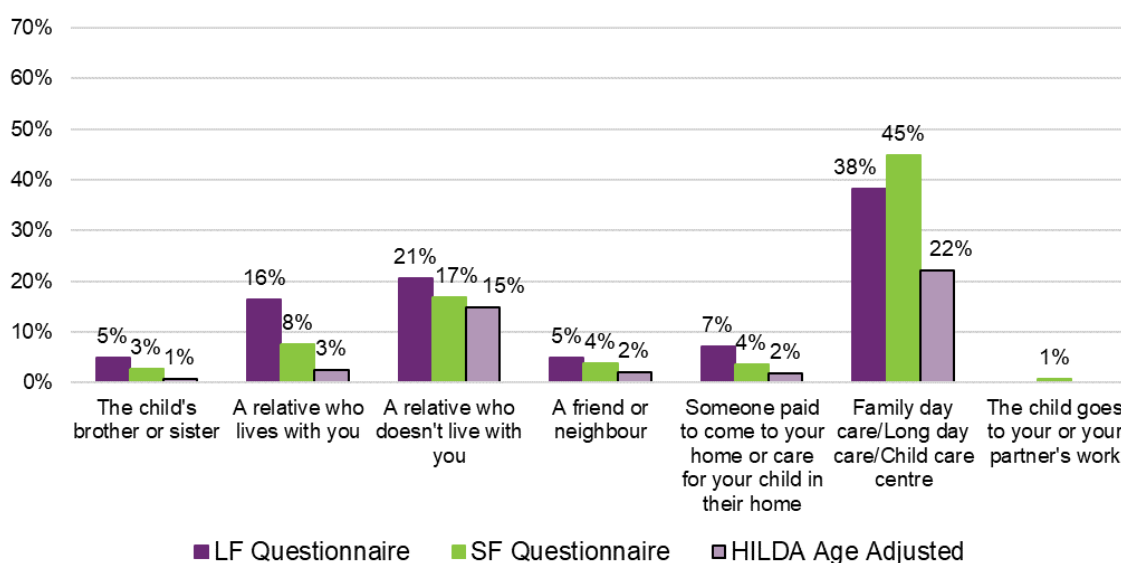


Figure 5.6 Types of childcare used while not at work, comparison to population benchmark



The most common form of childcare across all surveys is family day care, long day care or any other care at a child care centre, followed by a relative who doesn't live with the family (paid or unpaid). Parents and carers of NDIS participants are considerably more likely to use centre-based childcare while not at work compared to the general population, potentially to allow them to have a break. Parents/carers in the LF questionnaire were also found to be more likely to use informal childcare (e.g. siblings, other relatives, friends or neighbours) compared to parents/carers in the SF questionnaire and the HILDA Survey, but this may again reflect the demographic profile of the LF questionnaire cohort.

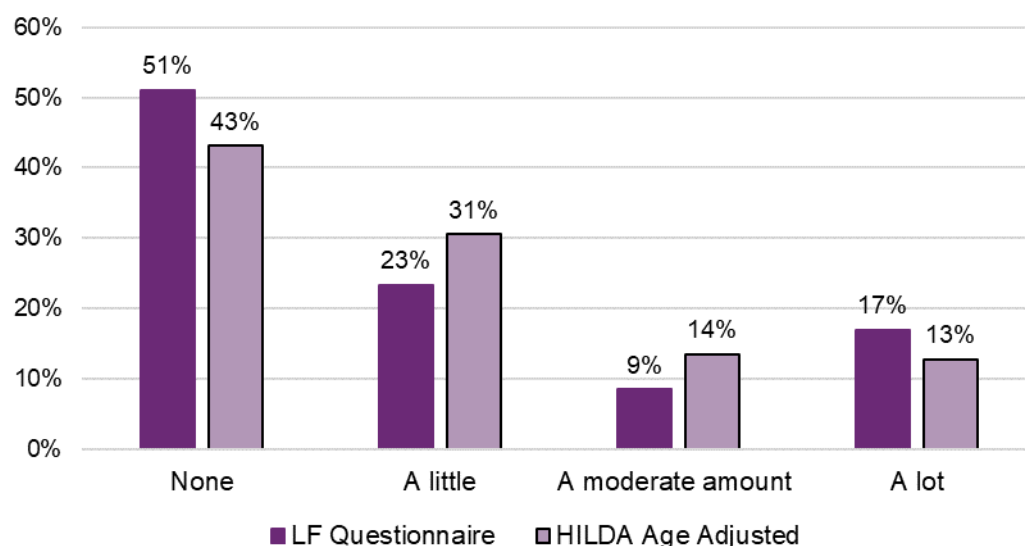
The percentage of HILDA Survey respondents who use childcare at work is considerably larger compared to NDIS participants, across both the LF and SF questionnaires. Given the size of the difference, this is likely due to an inconsistency in interpretation between the two surveys rather than a fundamental difference in the types of childcare used²³.

There are some additional questions included in the LF questionnaire regarding difficulties accessing childcare that also appear in the HILDA Survey. These questions are:

1. 'How much difficulty did you have in finding good quality childcare?'
2. 'How much difficulty did you have in finding the right person to take care of your child?'
3. 'How much difficulty did you have in finding childcare at short notice?'

Figure 5.7, Figure 5.8, and Figure 5.9 compare the responses in the LF questionnaire to the age-adjusted HILDA Survey.

Figure 5.7 Difficulties finding good quality childcare, comparison to population benchmark



²³ For the HILDA Survey, respondents are asked 'While you (and your partner) are working, who looks after the child?' and one of the multi choice options is 'Me or my partner'. This is assumed to correspond to using childcare at the workplace as the question specifies that both the respondent and their partner is at work, but is likely interpreted differently in practice to include one partner staying home with the child

Figure 5.8 Difficulties finding the right person to care for child, comparison to population benchmark

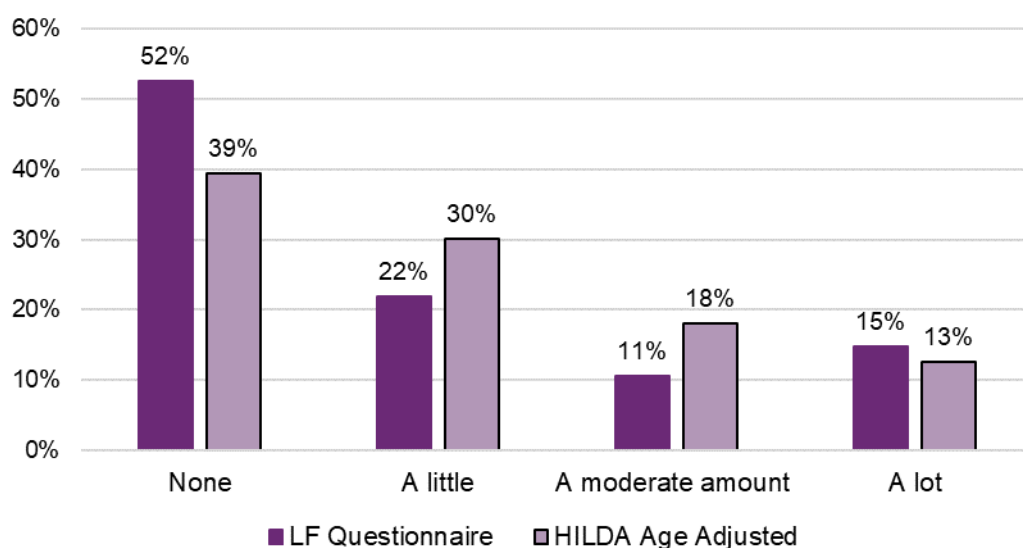
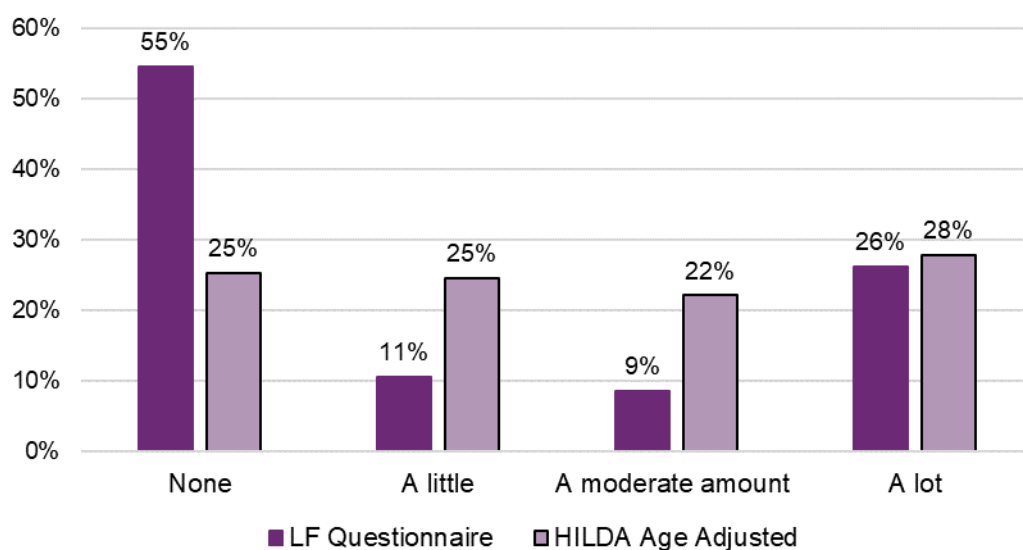


Figure 5.9 Difficulties finding childcare at short notice, comparison to population benchmark



Parents and carers of NDIS participants who completed the LF questionnaire are found to be more likely to have no difficulties in accessing childcare compared to parents and carers in the general population, particularly with regards to finding childcare at short notice (55% versus 25%). Whilst they are slightly more likely to face a lot of difficulties finding good quality childcare (17% versus 13%) and finding the right person to care for their child (15% versus 13%), they are slightly less likely to face a lot of difficulties finding childcare at short notice (26% versus 28%).











5.4 Key drivers of childcare usage at baseline

The key drivers of whether participants aged 0 to before starting school are in childcare prior to entering the Scheme (that is, at baseline) have been analysed using a multiple logistic

regression analysis on the SF questionnaire cohort. The regression analysis models a binary response (dependent) variable of one if the parent or carer responds at baseline that they use childcare and zero otherwise. A stepwise regression approach is used to determine the statistically significant predictors from a number of different variables expected to influence the desire and/or ability of a parent or carer to use childcare prior to entering the Scheme.

Table 5.1 outlines the variables that were found to have a significant relationship to usage of childcare at baseline, based on the multiple logistic regression analysis. The direction of the relationship is also given.

Table 5.1 Key drivers of usage of childcare at baseline

Variable	Relationship
Entry age	 0 to 4  5 to 6
Level of function	 with increasing score
Annualised cost of plan is greater than 20k	
Streaming type is intensive or super intensive	
Participant is male	
Participant lives in NSW	
Participant uses specialist services at baseline plan	
Participates in age appropriate community, cultural or religious activities at baseline plan	
Participant can make friends with people outside the family at baseline plan	

Childcare usage is found to be lower when the child participant has any of the following characteristics: a lower level of function²⁴, higher annualised plan costs, or streamed as intensive or super intensive. These results suggest that parents/carers of children with disabilities that have relatively higher needs are less likely to use childcare. This relationship may reflect a lack of training or resources available for childcare providers to support children with high needs disabilities, both in formal and informal settings. Additional barriers to the usage of formal childcare for high needs participants include low expectations, active discrimination, and the costs of formal childcare services for parents and carers who may already face large out-of-pocket costs to support their child²⁵.

Research has shown that partnerships between early childhood specialists and mainstream services can improve the ability of mainstream programs to meet the child's needs, and can lead to meaningful inclusion for the child if specialist services are well-integrated into the

²⁴ Level of function is on a scale of 1 (highest level of function) to 15 (lowest level of function) so as the score increases, the participant has a lower level of function

²⁵ Productivity Commission Inquiry Report. 2014. Childcare and Early Childhood Learning pp 518.

mainstream setting²⁶. The positive relationship between usage of specialist services and usage of childcare by parents and carers may suggest that some specialist service providers are effectively working with childcare providers to support children with disabilities. Furthermore, the use of specialist services may improve the confidence of both the parent/carer and the child to engage with childcare outside of the immediate parent or carer.

A positive relationship is also found between childcare usage and parents/carers who report that their child is involved in the community or can make friends with people outside the family. This may reflect factors that drive the use of childcare, for example parent/carers may be more comfortable using childcare once their child's social skills are more developed. Alternatively, it may be an outcome of childcare usage whereby a child who attends childcare is able to build social skills, and this improves their ability to make friends and be involved in the community. As longitudinal data is collected on childcare from the SF questionnaire, the impact of childcare usage on reported outcomes will be analysed to gain more insight into this relationship.

There are additional factors related to the parent or carer that would be expected to influence the use of childcare, for example the number of hours the parent or carer is working. There is a plan to connect the responses from the family and carer surveys to the participant surveys in order to improve the analysis of childcare usage in the future.

²⁶ Noah's Ark Incorporated. 2006. Inclusion in Children's Services: Next Steps pp 17-21.

6. Participants from birth to before starting school: specialist services

6.1 Key findings

Box 6.1: Key findings for participants from birth to before starting school: specialist services

- Use of specialist services is widespread amongst NDIS participants, and has increased significantly between baseline (72%) and review (90%). Increases are observed for both existing participants (those receiving services from State/Territory or Commonwealth systems before entering the NDIS) and new participants, but more so for new participants, suggesting that much of the increase is attributable to participants and their families receiving funding towards these specialist services for the first time.
- The majority of SF respondents feel that the specialist services they are using contribute positively to their child's learning and development, and assist them to support their child. The percentages who feel this way have also increased between baseline and review.
- Participants with a developmental delay, those living in South Australia, and those living in a high unemployment Local Government Area, are less likely to use specialist services.
- Early intervention participants are more likely to use specialist services, suggesting that that these services are viewed as an effective early intervention support for children with a disability or developmental delay. Investigation of the relationship between early intervention exits and use of specialist services may help quantify the effectiveness of these services in improving outcomes to a point where children no longer need individualised support from the Scheme.

6.2 Background and overall results

Specialist services such as speech pathology, physiotherapy, occupational therapy, psychology, and others can help children with a disability or a developmental delay to achieve better longer-term outcomes when delivered through an early intervention approach. Research has shown providing children and families with timely, comprehensive and well-integrated early intervention supports in early childhood can improve the child's inclusion and participation in their environment, and may reduce the cost and impact of the child's disability later in life²⁷.

In the Daily Living domain of the SF questionnaire, the parents and carers of participants aged 0 to before starting school are asked to respond to the statement 'My child uses specialist services (e.g. speech pathology, occupational therapy) that assist their learning and development'. The overall change in the reported usage of specialist services by children aged 0 to starting school was a significant²⁸ increase from **72%** at baseline to **90%** at review. This increase was largely driven by participants who were not in an existing State/Territory or Commonwealth disability program prior to entering the NDIS, as shown in Figure 6.1.

Figure 6.1 Use of specialist services, by Scheme access entry type

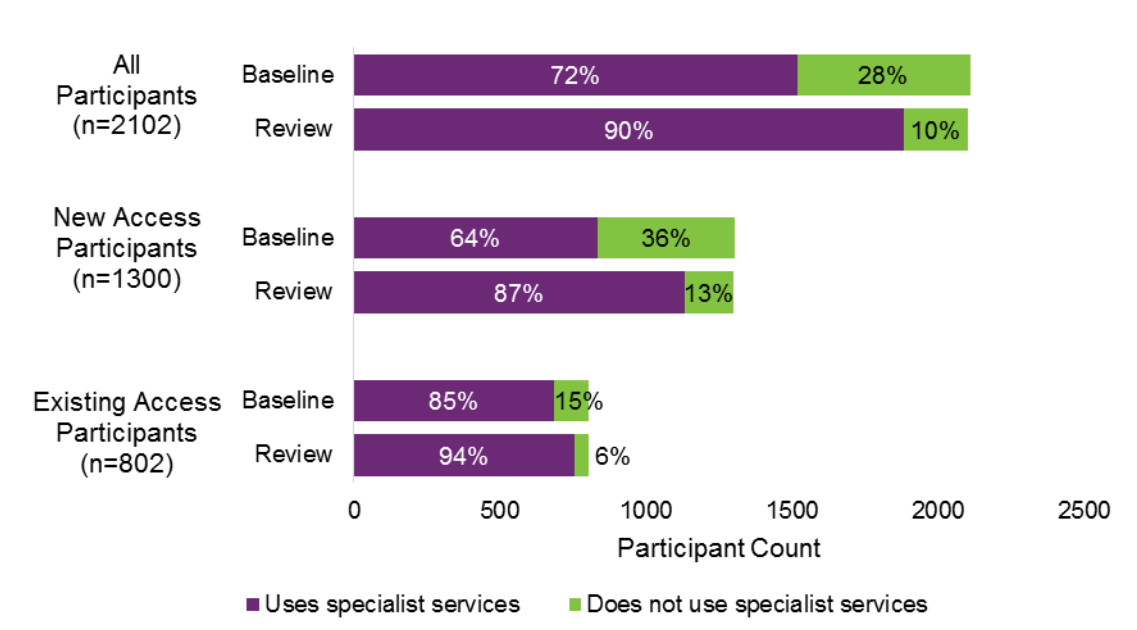


Figure 6.1 illustrates that, while the use of specialist services is increasing between baseline and review for all participants, there is a considerably higher proportion of new access participants who were not using specialist services at baseline (36%) compared to existing access participants (15%). The high overall change in specialist service usage thus likely reflects the large number of new access participants who are using specialist services for the

²⁷ NDIS Early Childhood Early Intervention Approach. 2016. <https://www.ndis.gov.au/about-us/information-publications-and-reports.html>

²⁸ McNemar's test, $p < 0.0001$.

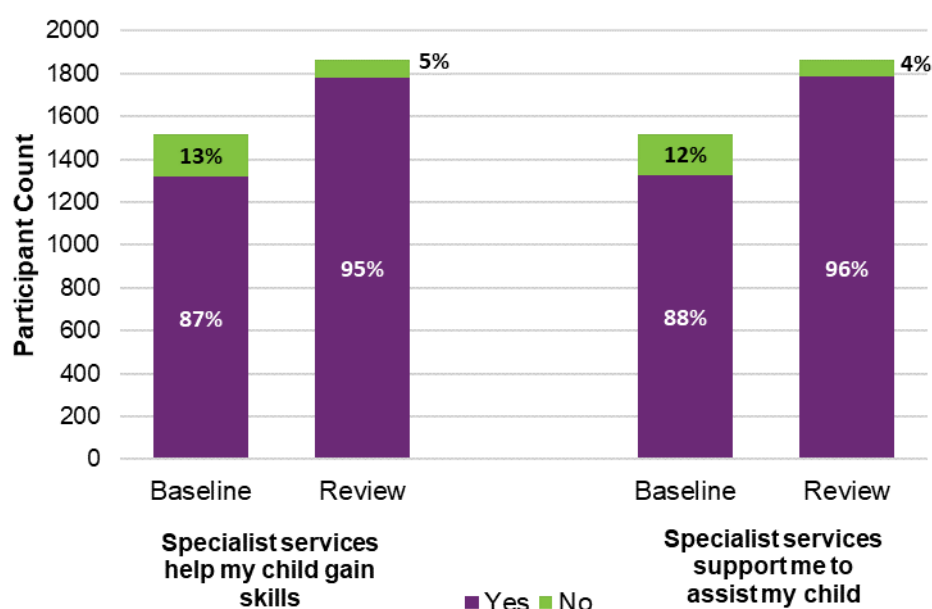
first time after entering the Scheme, due to either the age of the child or because this is the first time they have received funding to access these services.

For the parents/carers who report that their children are using specialist services, there are two other questions included in the SF questionnaire related to the effectiveness of these services. They are:

1. 'These services help my child gain the skills she/he needs to participate in everyday life (e.g. go to preschool)'
2. 'These services support me to assist my child'

The response to these questions for parents/carers who reported that their child is using specialist services at either baseline or review is given in Figure 6.2 below.

Figure 6.2 Effectiveness of specialist services for participants who are using specialist services at baseline or review



As the number of child participants using specialist services increases, there is also a corresponding increase in the parents and carers who report that these services are helping their children to gain skills and/or support the parent/carer to assist their child.

The detailed transition rates between usage of specialist services at baseline and review are given in Table 6.1 below. Where the parent or carer reports that their child uses specialist services, this has been further broken down into those who report that the services help (either with the child's skill development or with assistance to support child), and those who report that the services do not help.

Table 6.1 Transition rates for usage of specialist services*

Baseline Specialist Services	Review Specialist Services		
	Yes, and it helps** (n=1815)	Yes, and it does not help (n=70)	Does not use specialist services (n=217)
Yes, and it helps** (n=1367)	99% (n=1351)	0% (n=1)	1% (n=15)
Yes, and it does not help (n=145)	65% (n=94)	34%²⁹ (n=49)	1% (n=2)
Does not use specialist services (n=590)	63% (n=370)	3% (n=20)	34% (n=200)

* Excludes participants where specialist service usage is unknown at baseline or review

** Parent/carer reports that services help their child to gain skills to participate in everyday life OR the services support them to assist their child

For participants who were already accessing specialist services at baseline, there is very little change in usage at review, regardless of the reported effectiveness of these services. There is also a considerable increase in use of specialist services at review by the participants who did not use them at baseline.

For children aged 0 to before starting school who enter the Scheme to access early intervention supports, there is an expectation that many will receive these supports and then exit the NDIS³⁰. Analysing Scheme exits along with the reported outcomes for these participants will help the NDIS to understand the effectiveness of early intervention supports in helping children to improve their long term outcomes and transition to support in a mainstream or community setting.

6.3 Key drivers of specialist service usage

The key drivers of whether participants aged 0 to before starting school access specialist services have been analysed using a multiple logistic regression analysis approach. The regression analysis models a binary response (dependent) variable of one if the parent or carer responds at review that their child uses specialist services and zero otherwise. A stepwise regression approach is used to determine the statistically significant predictors from a number of different variables expected to influence the desire and/or ability of a parent or carer to access specialist services for their child.

²⁹ Of particular concern are these 49 parents/carers who reported at both baseline and review that specialist services do not help them or their child. These reported outcomes should be linked into the plan review process, prompting the planner to have a discussion with the parent/carer on the effectiveness of the services being purchased, and whether they are yielding an outcome for the child

³⁰ NDIS Operational Guidelines – Early Intervention Requirements. 2018.

<https://www.ndis.gov.au/operational-guideline/access/early-intervention-requirements.html>

Table 6.2 outlines the variables that were found to have a significant relationship to usage of specialist services at review, based on the multiple logistic regression analysis. The direction of the relationship is also given.

Table 6.2 Key drivers of usage of specialist services at review

Variable	Relationship
Parent/carer reported that participant used specialist services at baseline plan	↑
Scheme access reason is 'benefit from early intervention'	↑
Participant has a developmental delay at their baseline plan	↓
Average unemployment rate in participant's local government area over plan period	↓ with increasing unemployment rate
Participant lives in South Australia	↓

Participants who are already using specialist services at baseline or who entered the Scheme under early intervention requirements³¹ are found to be more likely to use specialist services at review. Children aged under 6 years may access the Scheme through early intervention if they have a disability or developmental delay which results in the need for early, individualised supports that can reduce the impact of their disability in the long term. It is expected that many of the children who meet the early intervention access criteria will receive early intervention supports and then exit the NDIS. The higher usage of specialist services by this group may suggest that specialist services are viewed as an effective early intervention support for children with a disability or developmental delay.

Children who have a primary disability of developmental delay when they enter the Scheme generally do not have a diagnosis of a specific disability, such as autism or intellectual disability, but have a substantial reduction in functional capacity in one or more areas of life activity. While many of these participants will enter the Scheme under early intervention requirements, which are associated with higher usage of specialist services, they are found to have lower rates of specialist service usage than participants who have a specified disability regardless of Scheme access type. The potential reasons for this outcome could be that parents/carers are less certain of the appropriate specialised services for children who do not have a diagnosed disability, or that they find other supports more effective.

The impact of the unemployment rate on specialised service usage likely reflects accessibility issues for parents and carers. Those who are located in areas with high

³¹ Note that this cohort entered the Scheme in the early stages of the rollout of the Early Childhood Early Intervention (ECEI) gateway. As a result, only a small number of these participants would have entered through the gateway, and data is not readily available to identify the ECEI participants in this cohort.

unemployment rates, such as regional or rural communities³², may have fewer specialist services available in the local area. Alternatively, participants who live in an area with high unemployment rates may come from a lower socioeconomic background and their parents/carers could face additional hurdles accessing specialised support, such as out of pocket costs, lower education levels, housing instability etc. Similarly, the lower rates of specialised service usage in South Australia could represent access issues in this state, but this should be continued to be monitored over time as the Scheme is fully rolled out to children in all States and Territories.

The impact of specialist service usage on key participant outcomes was also investigated using multiple logistic regression analysis. However, given the large proportion of participants engaging in specialist services at review and the single year timeframe over which outcomes are measured, the results were not conclusive. The impact of specialist services on participant outcomes will continue to be monitored as more data is collected.

³² The Accessibility and Remoteness Index of Australia (ARIA) corresponding to participants local government area was allowed for separately in the regression analysis, but was not found to be significant

7. Participants from birth to before starting school: Has the NDIS helped?

7.1 Aggregate results

For participants entering the Scheme in the first year of transition, and who have been in the Scheme for approximately one year as at 30 June 2018, Figure 7.1 shows the percentage who think that the NDIS has helped with outcomes related to each of the five domains.

Figure 7.1 Percentage who think that the NDIS has helped with outcomes related to each domain

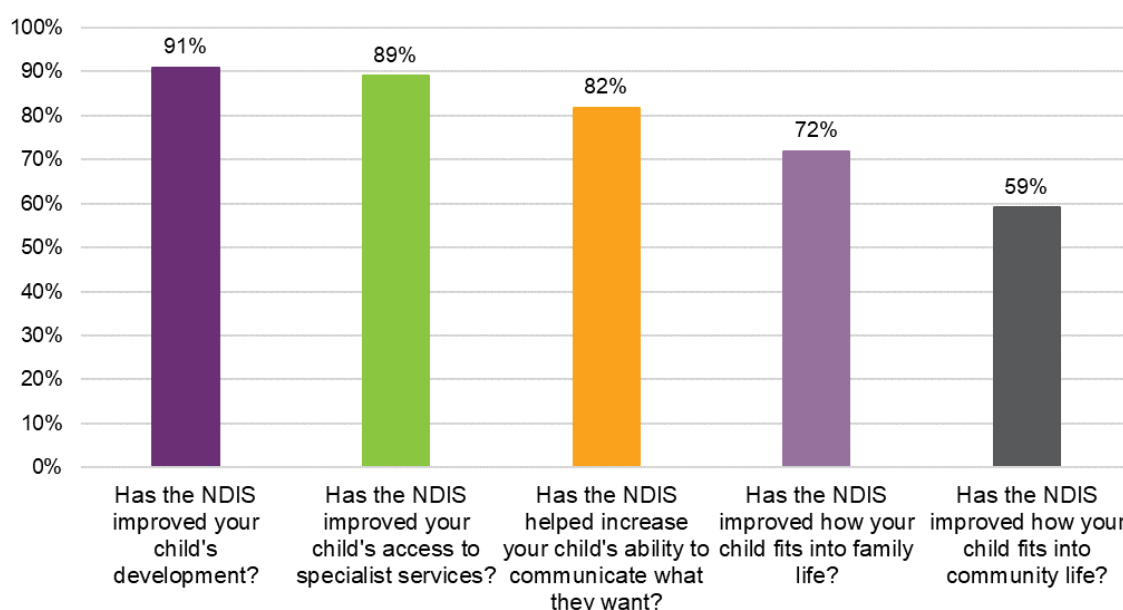


Figure 7.1 shows that opinions on whether the NDIS has helped vary considerably by domain for the youngest cohort of participants. There is widespread agreement that the NDIS has helped in areas related to the child's development (91%) and access to specialist services (89%). A slightly smaller percentage (82%) feel that the NDIS has helped improve their child's ability to communicate what they want. Percentages are lower for integration into family and community, with 72% thinking that the NDIS has helped with how their child fits into family life, and 59% thinking that the NDIS has helped with fitting into community life.

7.2 Results by participant characteristics

Analysis by participant characteristics, using one-way analysis and multiple regression, reveals the following key findings:

- Baseline plan utilisation is an important predictor of a positive response for all five areas. The likelihood of a positive response starts out low for those with very low utilisation (less than 15%), increases strongly as utilisation increases from 0% to 15%, and at a more modest rate as utilisation increases above 15%.
- The likelihood of a positive response also varied by disability. Parents/carers of children with intellectual disability, cerebral palsy, global developmental delay, another physical disability, or deafness/hearing loss have a tendency to be less likely to think that the NDIS has helped in one or more of the five areas, whereas

parents/carers of children with another sensory/speech disability or developmental delay are more likely to respond positively in one or more areas.

- Participants entering the Scheme for early intervention were more likely to think that the NDIS had helped than those entering due to disability.
- The likelihood of a positive response tended to decrease with participant's level of function. For some areas, the likelihood of a positive response also decreased with annualised cost of baseline plan.
- Respondents from South Australia tended to be more optimistic that the NDIS had helped than respondents from other States/Territories.
- Parents/carers of boys tended to be more positive about the NDIS having helped than parents/carers of girls.
- Responses also varied according to other measured outcomes. For example, parents/carers of children who have friends they enjoy playing with are more likely to respond positively.

8. Participants from starting school to age 14: overview of results

8.1 Key findings

Box 8.1: Key findings for participants from starting school to age 14

- In the longitudinal analysis, significant improvements were observed across a number of indicators, particularly in the areas of independence and friendships. On the other hand, a number of indicators have deteriorated, particularly related to impact on family life and involvement in activities.
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Participants with a hearing impairment generally experience better outcomes than those with other disabilities.
- Participants from regional and remote locations, compared to those from major cities, show more positive results on some indicators – both at baseline and for longitudinal change. For example, they are more likely to be developing functional, learning and coping skills and are less likely to move out of a mainstream class.
- Children from a CALD background have worse outcomes on most baseline indicators.
- Baseline results for Indigenous participants are more mixed. Indigenous children tend to exhibit higher levels of independence, but their school experiences tend to be worse than for non-Indigenous children. As for the younger cohort, Indigenous children are less likely to live with their parents, and more likely to live in public housing.
- At baseline, 65% of participants attended school in a mainstream class, with 21% in a special school and 12% in a support class. The percentage in a mainstream class declines with school year, from 75% for K-2, to 64% for years 3-6, and 42% for years 7-10. The percentage also varies considerably by disability: for example, only 38% of children with an intellectual disability or Down syndrome attend school in a mainstream class, compared to almost 90% of children with a sensory disability, developmental delay, or global developmental delay.
- Parents and carers report that children attending a special school are more likely to feel genuinely included and happy at school. Parents and carers of children at a special school also report having better knowledge of their child's goals at school and tend to be more satisfied that the school listens to them in relation to their child's education.
- However, analysis of the impact of educational setting on other outcomes reveals that children enrolled in a support class or special school are less likely to be developing independence, to have a genuine say in decisions about themselves, to make friends outside the family, and to spend time with friends without an adult present. Hence from a broader perspective, participation in mainstream education confers benefits on independence, relationships, and social participation that are less likely to be experienced by children attending a special school.

Box 8.1: Key findings for participants from starting school to age 14 (continued)

- Opinions on whether the NDIS has helped vary by domain for the starting school to 14 cohort, with the percentage responding positively ranging from 33% for access to education to 51% for independence. For education, however, the mainstream education system has a much bigger role in ensuring successful outcomes than the NDIS. Higher baseline plan utilisation is a strong predictor of a positive response across all four areas surveyed. The fact that utilisation tends to be lowest for the starting school to 14 cohort may contribute to the observed lower levels of satisfaction. Self-managing (either fully or partly) also tends to be associated with more positive responses. Participants entering the Scheme for early intervention are more likely to think that the NDIS has helped with independence and school than those entering due to disability.

8.2 Results overview

8.2.1 Outcomes framework questionnaire domains

Starting with the milestone of school commencement, this life stage follows children through to the early teenage years. Typically these years are characterised by increasing independence and development of relationships inside and outside the family. Hence the outcomes framework seeks to measure the extent to which participants:

- Grow in independence;
- Are welcomed and educated in their local school;
- Form friendships with peers and have positive relationships with family; and
- Participate in local social and recreational activities.

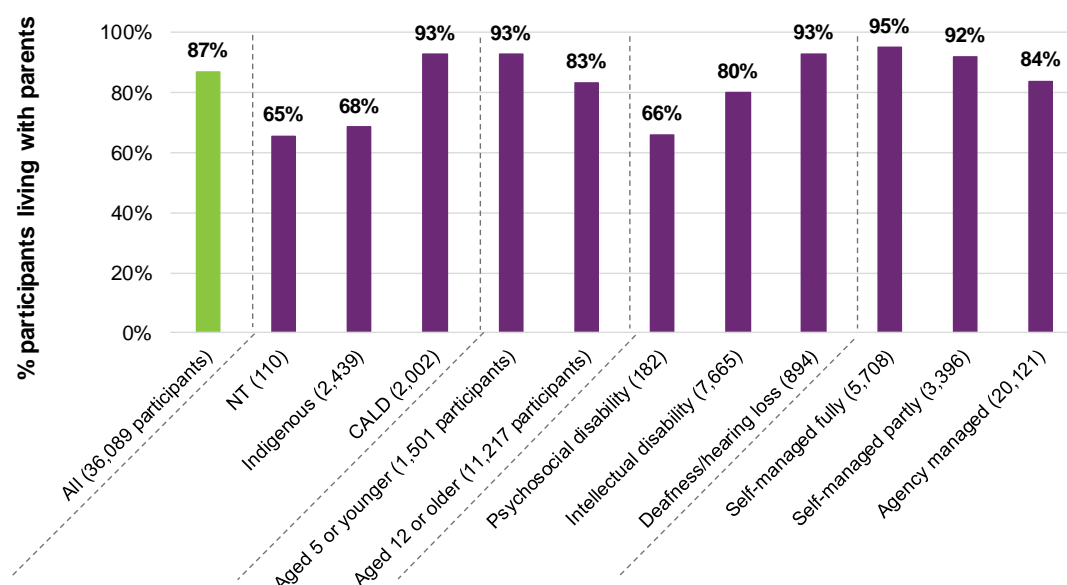
The LF questions for participants in the starting school to age 14 cohort allow a deeper investigation into the experiences of participants in educational and school settings, with eight extra questions devoted to these areas. There are also three extra questions about developing independence (on managing the demands of the world and becoming more independent), one on relationships (about the effect on siblings), and four on social participation (about vacation care and after school activities).

8.2.2 Participant living arrangements

Overall, 87% of children live with their parents. The percentage is much lower in NT (65%) and for Indigenous participants (68%), but higher for CALD participants (93%). There is a declining trend with age, from 93% for children aged 5 or younger to 83% for children aged 12 or older. Participants with psychosocial disability (66%) or an intellectual disability (80%) are less likely to live with their parents, and those with deafness/hearing loss (93%) are more likely to live with their parents. The percentage is higher for participants whose plan is self-managed (95%) compared to agency-managed (84%).

Overall, 9% of participants live in a private home rented from a public authority. The percentage is much higher in NT (50%) and for Indigenous participants (27%).

Figure 8.1 Proportion of participants living with parents

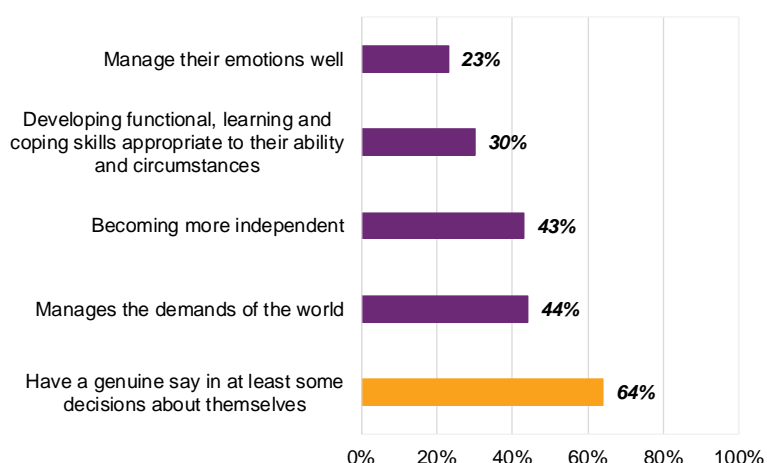


8.2.3 Baseline indicators – aggregate

Independence

Baseline levels of independence are generally low for this cohort. For example, only 23% of parents/carers say their child manages their emotions well, and only 30% think their child is developing functional, learning and coping skills appropriate to their ability and circumstances. Based on SF answers, 42% think their child is becoming more independent, and in the LF, 44% think their child manages the demands of their world. The most positive result is that 64% of children have a genuine say in at least some decisions about themselves.

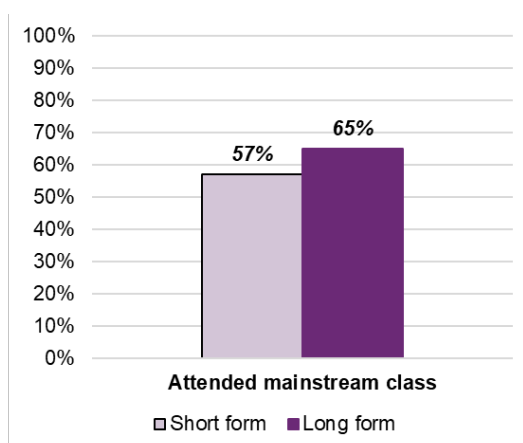
Figure 8.2 Independence indicators



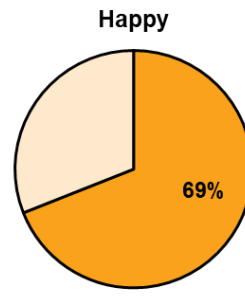
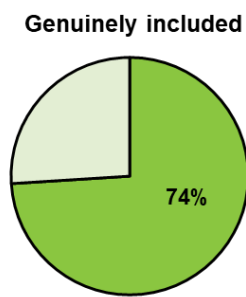
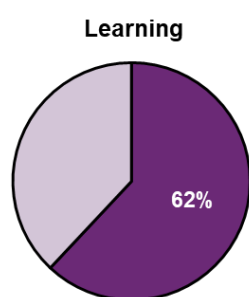
School

57% of children responding to the SF attended school in a mainstream class (65% of those responding to the LF). Involvement of families and carers in their child's education was reasonably high: based on the LF, 73% were satisfied that their child's school listens to them in relation to their child's education, 77% knew their child's goals at school, and 69% thought their child's education was matched to those goals. Regarding the child's experience at school, 62% thought that their child was learning at school, 74% thought that their child was genuinely included and 69% thought that they were happy at school. 62% of children had been involved in co-curricular activities at school, most commonly in school plays or concerts. Only 44% of children who were not exempt had sat a NAPLAN test. A relatively high proportion of children (17%) had ever been suspended from school.

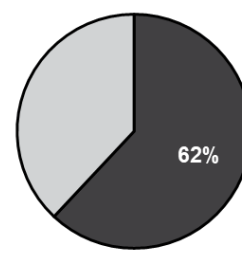
Figure 8.3 School experiences



Child's experience at school:



Involved in co-curricular activities



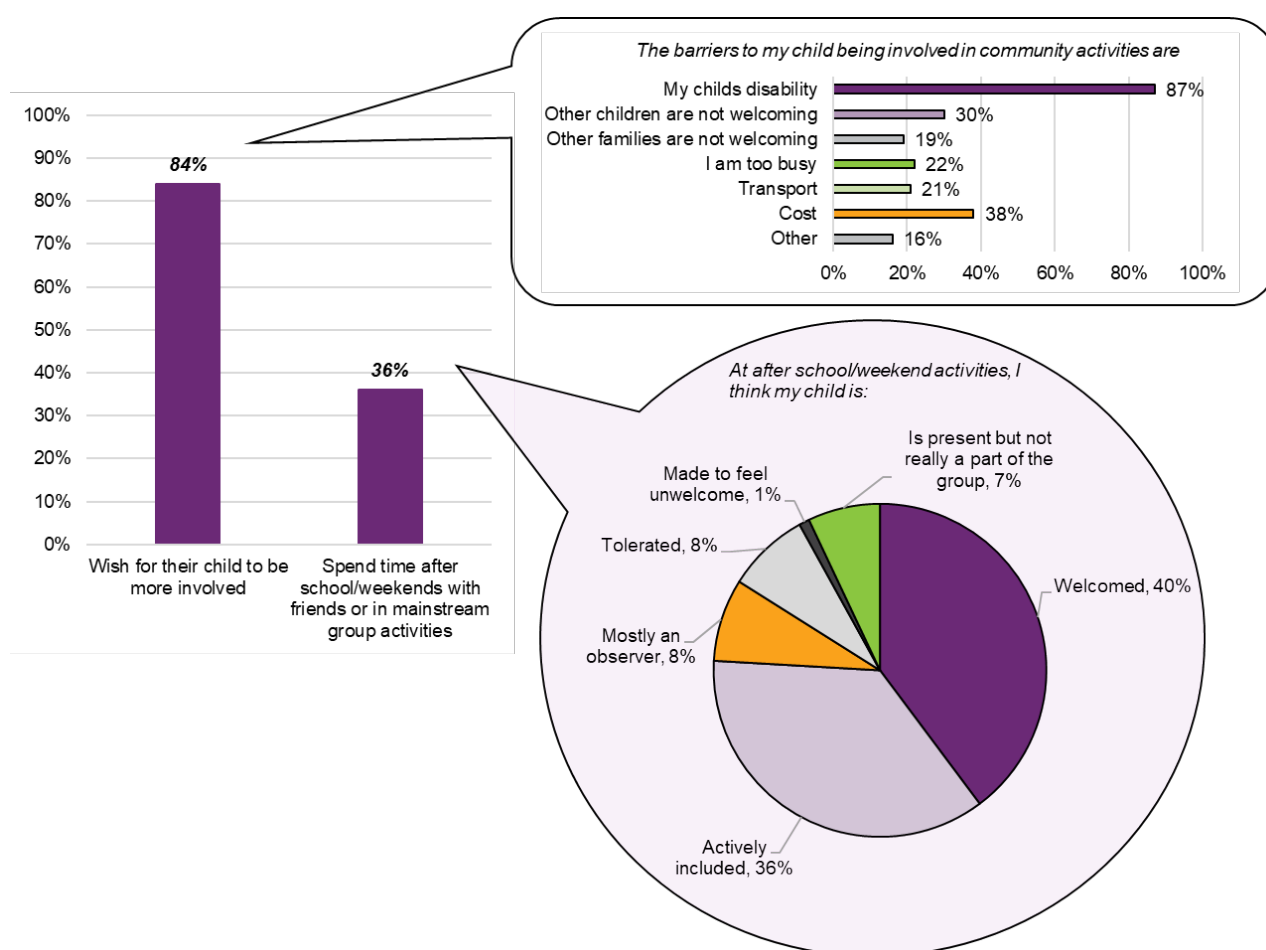
Relationships

In relation to family life, only 28% of parents/carers think there is enough time to meet the needs of all family members (lower than the 55% for the pre-school cohort). 61% of those with more than one child expressed some concern about the effect of having a sibling with disability on their other children. However, 74% say that their child with disability gets along with their siblings. Overall, 88% say that their child fits into everyday family life (often or sometimes). Of those who go out without their child, 88% use informal care (the child stays with siblings, extended family, family friends or by themselves), although only 47% say they are happy with their childcare arrangements. Half the children have friends they enjoy spending time with, and 62% are able to make friends with people outside the family.

Participation

Overall, participation in mainstream activities tends to be low for this cohort. Only 10% of parents/carers use a mainstream school holiday program and only 36% of children spend time after school and on weekends with friends or in mainstream group activities. A high proportion (86%) of parents/carers expressed a wish for their child to be more involved, and 87% of these perceived their child's disability as a barrier to being more involved. 60% of parents/carers had some difficulty in finding vacation care.

Figure 8.4 Involvement in community activities



8.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple logistic regression modelling. Key findings from these analyses include:

- **Level of function**

Baseline indicators tend to be better for participants with higher level of function, and those with lower cost plans.

- **Culturally and linguistically diverse backgrounds**

Children from a culturally and linguistically diverse background have worse outcomes on most indicators.

- **Indigenous**

Results by Indigenous status are more mixed. Indigenous children are more likely to have a genuine say in decisions about themselves, to make friends outside the family, and to spend time with friends without an adult present. However they are less likely to attend school in a mainstream class, and their school experiences tend to be worse than for non-Indigenous children. For example, they are much less likely to have sat a NAPLAN test and to have been involved in co-curricular activities at school, but much more likely to have been suspended from school.

- **Age**

Results by age are also mixed. As expected, older children are more likely to spend time with friends without an adult present, and to have a genuine say in decisions

about themselves. However, time away from parents is less likely to be spent with friends or in mainstream activities, and older children are less likely to be in a mainstream class at school. Many of the outcomes related to friendships and family life also exhibit a deteriorating trend with age.

- **Disability**

Children with deafness/hearing loss have better outcomes across most indicators than children with other types of disability. Children with visual impairment and another sensory/speech disability also have a tendency to better outcomes on many indicators. Children with autism or a psychosocial disability do worse on most indicators, and those with an intellectual disability or Down syndrome also tend to do worse on many indicators.

- **Type of school**

Children attending a special school are more likely to feel genuinely included and happy at school than children in a mainstream or support class. Parents/carers of children at special schools have better knowledge of their child's goals at school and tend to be more satisfied that the school listens to them in relation to their child's education. However, children enrolled in a support class or special school are less likely to be developing independence, to have a genuine say in decisions about themselves, to make friends outside the family, and to spend time with friends without an adult present.

- **Geography**

Children from regional and remote locations show more positive results than those from major cities, across many of the indicators. For example, they are more likely to be developing functional, learning and coping skills.

- **Gender**

Girls are more likely than boys to attend school in a mainstream class, and much less likely to have been suspended from school. However, controlling for other factors, they are less likely to spend time with friends without an adult present.

8.2.5 Longitudinal indicators – aggregate

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants entering the Scheme in the first year of transition (from 1 July 2016 to 30 June 2017) for whom a record of outcomes is available at two time points: at scheme entry and at approximately one year following scheme entry.

As expected during this relatively short period, many indicators have not changed a great deal. For this summary we select indicators based on a combination of statistical significance and magnitude of change^{33,34}.

Table 8.1 summarises changes for the 13 selected indicators.

³³ Since there is vastly more data available for the SF, with more than 7000 participants contributing to the analysis, statistical testing would identify indicators where the magnitude of change is unimportantly small, so we only consider SF indicators where the absolute magnitude of change in the indicator is greater than 0.02 (all of these changes are statistically significant). For the LF, where the quantity of data is much smaller (generally less than 400 participants), selection is based on statistical significance.

³⁴ Note that at least some of the observed change may be attributable to normal age-related development, since the children will be one year older at the second time point.

Table 8.1 Selected longitudinal indicators for participants from starting school to age 14

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
LF	1	% of children who manage the demands of their world	47.4%	58.0%	10.6%	Improvement
SF	1	% who say their child is becoming more independent	43.6%	46.4%	2.7%	Improvement
SF	1	% of children who spend time away from parents/carers other than at school	30.9%	32.7%	1.8%	Improvement
LF	2	% who know their child's goals at school	69.5%	79.7%	10.3%	Improvement
SF	3	% who say they are happy with the child care arrangements	46.2%	48.2%	2.0%	Improvement
SF	3	% of children who have friends that he/she enjoys spending time with	46.1%	48.5%	2.4%	Improvement
SF	4	% who say they would like their child to have more opportunity to be involved in activities with other children	79.5%	87.7%	8.2%	Context dependent
SF	1	% who say their child manages their emotions	25.4%	22.7%	-2.7%	Deterioration
SF	2	% of children attending school in a mainstream class	54.4%	52.5%	-1.9%	Deterioration
SF	3	% of children who get along with their siblings	76.2%	73.5%	-2.7%	Deterioration
SF	3	% who report having enough time each week for all members of family to get their needs met	28.1%	25.5%	-2.6%	Deterioration
SF	4	Of those who would like their child to be more involved in activities with other children, % who see their child's disability as a barrier	83.1%	88.7%	5.6%	Deterioration
LF	4	% of families/carers who found it easy to find vacation care	43.4%	35.6%	-7.9%	Deterioration

Key findings from Table 8.1 include:

- For domain 1 (independence), three of the four indicators show positive change, with more children becoming independent and able to manage the demands of their world, and spending time away from parents/carers. However, children are less likely to manage their emotions.
- For domain 2 (school), parents/carers are significantly more likely to know their child's goals at school, however the percentage in a mainstream class has declined.
- Domain 3 (relationships) shows an improvement in friendships and satisfaction with childcare, but a deterioration in relationships with siblings and time available for all family members.
- Domain 4 (community) indicators exhibit some deterioration, with more seeing their child's disability as a barrier to greater involvement, and fewer finding it easy to find vacation care.

8.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

3. A simple comparison of the percentage meeting the indicator at review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
4. Multiple regression analyses modelling improvement in the indicator. That is, for the subset without the indicator at baseline, the probability of meeting the indicator at review is modelled as a function of participant characteristics. For some indicators, deterioration has been modelled in a similar way.

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

Some key features of the analyses for selected indicators are summarised below.

My child is becoming more independent (overall improvement of 0.027)

Based on the logistic regression model for improvement:

- Children with lower level of function, and those with cerebral palsy, were less likely to improve, whereas children with Down syndrome or a physical disability were more likely to improve.
- Children spending time with friends or involved in groups, and those participating in school holiday programs, were more likely to improve.
- Children fitting into family life and those from families where there was enough time to meet all family members' needs were more likely to improve.

Attending school in a mainstream class (overall deterioration of 0.019)

Based on a logistic regression model of moving from a mainstream class to a support class or special school:

- Children with lower level of function, older children, and those with an intellectual disability, were more likely to move out of a mainstream class.
- Participants in outer regional and remote areas are less likely to move out of a mainstream class.
- Participants living in public housing are more likely to move out of a mainstream class.
- The more positive the child's experiences at school at baseline, such as learning at school and being involved in co-curricular activities, the less likely the child is to move out of a mainstream class.

My child's disability is a barrier to being more involved (overall deterioration of 0.056)

Based on a model for moving from not perceiving the child's disability as a barrier, to perceiving it as a barrier:

- Families/carers of children with lower level of function, and of older children, are more likely to start perceiving their child's disability as a barrier.
- Families/carers of children who cannot manage their emotions well are more likely to start perceiving their child's disability as a barrier. Conversely, the likelihood of deterioration is lower for children who are becoming more independent.

9. Participants from starting school to age 14: school experiences

9.1 Key findings

Box 9.1: Key findings for participants aged from starting school to 14: school experiences

- Based on the LF data, at baseline, 65% of participants attended school in a mainstream class, with 21% in a special school and 12% in a support class. The percentage in a mainstream class declines with school year, from 75% for K-2, to 64% for years 3-6, and 42% for years 7-10. The percentage also varies considerably by disability: for example, only 38% of children with an intellectual disability or Down syndrome attend school in a mainstream class, compared to almost 90% of children with a sensory disability, developmental delay, or global developmental delay. The percentage in a mainstream class declines with decreasing level of function.
- Parents and carers report that children attending a special school are more likely to feel genuinely included and happy at school. Parents and carers of children at a special school also report having better knowledge of their child's goals at school and tend to be more satisfied that the school listens to them in relation to their child's education.
- However, analysis of the impact of educational setting on other outcomes reveals that children enrolled in a support class or special school are less likely to be developing independence, to have a genuine say in decisions about themselves, to make friends outside the family, and to spend time with friends without an adult present. Hence from a broader perspective, participation in mainstream education confers benefits on independence, relationships, and social participation that are less likely to be experienced by children attending a special school.
- Longitudinal analysis of LF data reveals a significant improvement in the percentage of parents/carers who say they know their child's goals at school: from 69% at baseline to 80% approximately one year later. Improvement tended to be greater for children attending a special school.
- Longitudinal analysis of SF data reveals that the percentage of children attending school in a mainstream class has declined from 54.4% at baseline to 52.5% at review. Children with lower level of function, older children, those with an intellectual disability, and those living in public housing, were more likely to move out of a mainstream class. Conversely, participants in outer regional and remote areas were less likely to move out of a mainstream class compared to those in major cities. Children's experiences at school were also associated with moving out of a mainstream class: the more positive the child's experiences at school at baseline, such as learning at school and being involved in co-curricular activities, the less likely the child was to move out of a mainstream class.

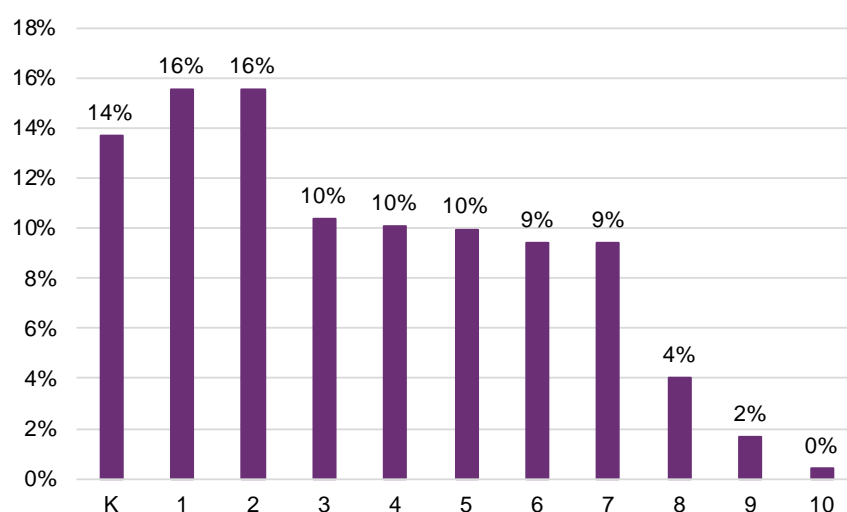
9.2 Baseline results

In this section we focus on results related to education and school experiences, concentrating mainly on the LF data. The LF 2016 and 2017 cohorts combined baseline for starting school to age 14 has 1092 participants.

9.2.1 School attendance and type of school/class

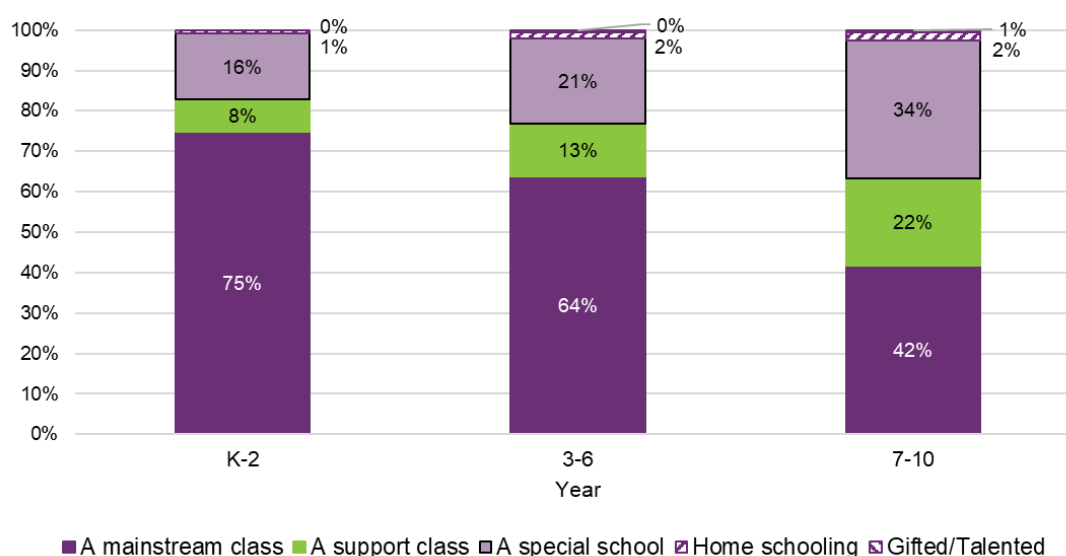
1026 participants, or 94% of the baseline cohort, were attending school at the time of the interview. 85% of those who attended school were in the primary school years of kindergarten (or equivalent) to Year 6, with 15% in the high school years 7 to 10. The distribution by year is shown in Figure 9.1.

Figure 9.1 Participants from starting school to age 14 – school attendance by Year



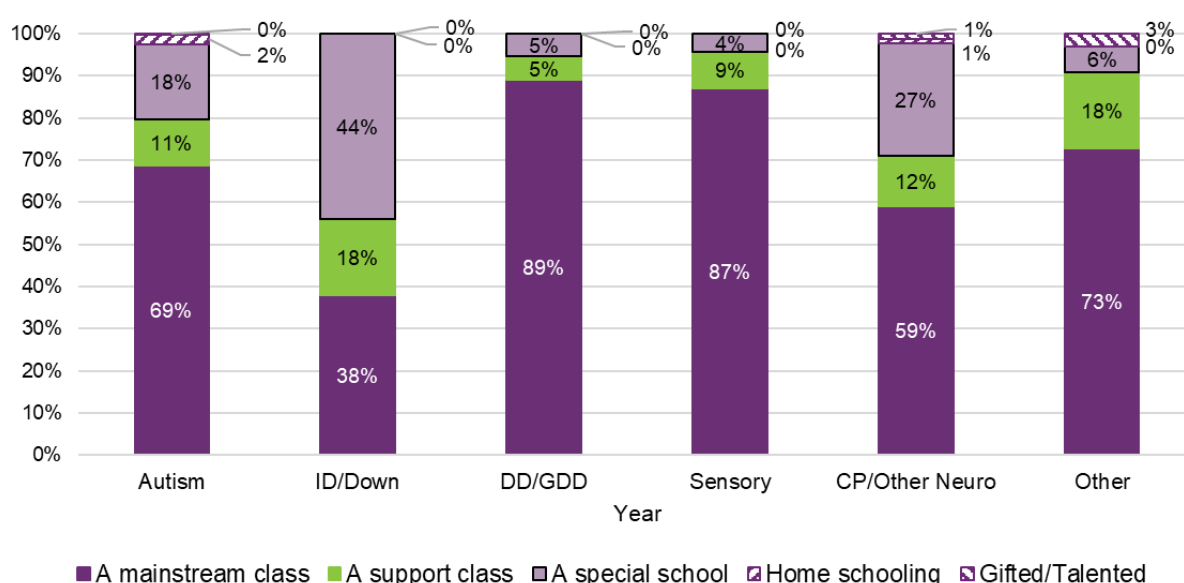
About two-thirds (65%) of participants attended school in a mainstream class, with 21% in a special school and 12% in a support class. Figure 9.2 shows how the percentage in a mainstream class declines with school year, from 75% in early primary years K-2, to 64% in later primary years 3-6, and 42% in high school years 7-10.

Figure 9.2 Participants from starting school to age 14 – educational setting by school year group



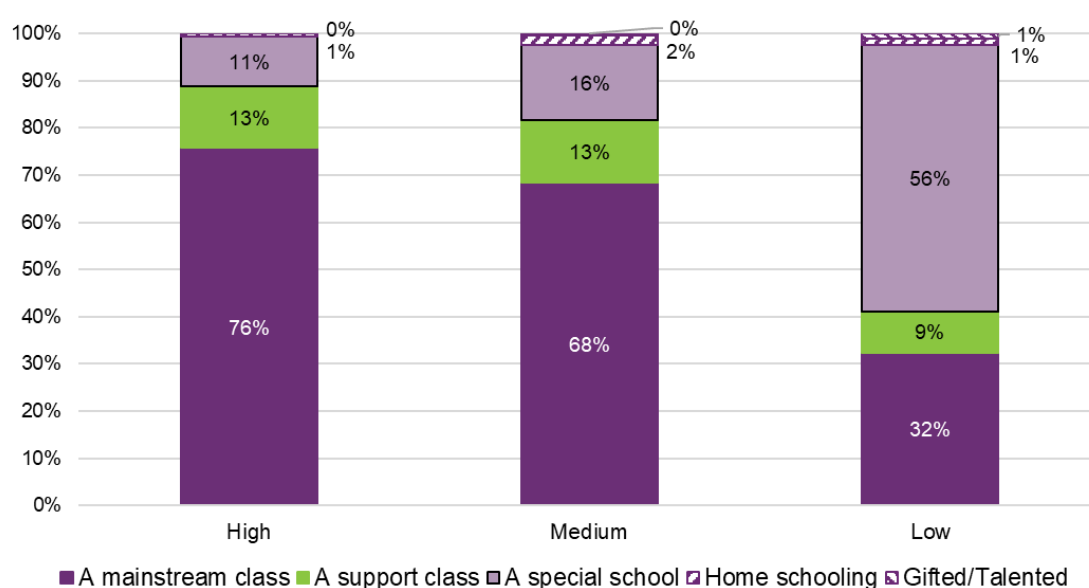
Attendance in a mainstream class also varies by disability, as shown in Figure 9.3. Almost 90% of children with developmental delay, global developmental delay or a sensory disability are in a mainstream class, compared to only 38% of children with an intellectual disability or Down syndrome. The percentage in a special school is higher than the overall percentage (21%) for children with an intellectual disability or Down syndrome (44%) and cerebral palsy/other neurological (27%).

Figure 9.3 Participants from starting school to age 14 – educational setting by disability



By level of function, there is a slight difference between participants with high and medium level of function, with 76% in the high function group attending school in a mainstream class compared to 68% in the medium function group. For participants with low level of function the percentage in a mainstream class (32%) is less than half of that for participants in the other two level of function groups. The distributions are shown in Figure 9.4.

Figure 9.4 Participants from starting school to age 14 – educational setting by level of function



9.2.2 Choice of school

The LF asks whether the child's school is the parent/carer's first choice, and whether there has been pressure to place the child in a particular class or school.

Where the child is in a mainstream class, the school is much more likely to have been the parent/carer's first choice amongst multiple options (69% of cases) than if the child is in a support class (46%) or special school (44%). Pressure to place the child in a particular class or school is more likely to have been felt where the child is in a support class (28%) or special school (29%) than when they are in a mainstream class (19%). These results are illustrated in Figure 9.5 and Figure 9.6.

Figure 9.5 Participants from starting school to age 14 – my child's school is my school of first choice

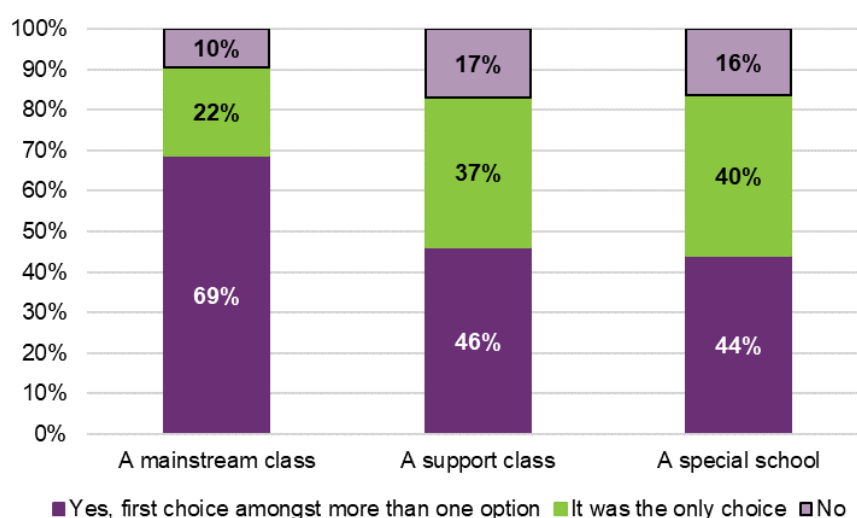
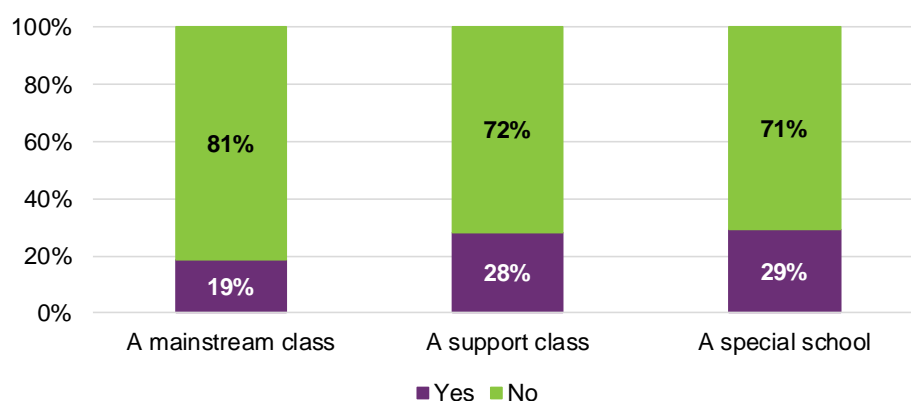


Figure 9.6 Participants from starting school to age 14 – have you had pressure to place your child in a particular class or school?



9.2.3 Children's goals at school

The LF asks whether the parent/carer knows the child's goals at school, and if they do, whether they think their child's education is matched to those goals.

In this area, children attending a special school seem to fare better than those in mainstream settings. Figure 9.7 shows that 85% of parents/carers of children in a special school know their child's goals at school, compared to 74-75% for children in a mainstream class or

support class³⁵. This may reflect that in a regular class, discussion of goals is less likely. Figure 9.8 shows that amongst parents/carers who know their child's goals, the proportion who think their child's education is matched to those goals is higher where the child is in a special school (45%) than where they are in a mainstream class (31%) or support class (32%). The differences are statistically significant.

Figure 9.7 Participants from starting school to age 14 – do you know your child's goals at school?

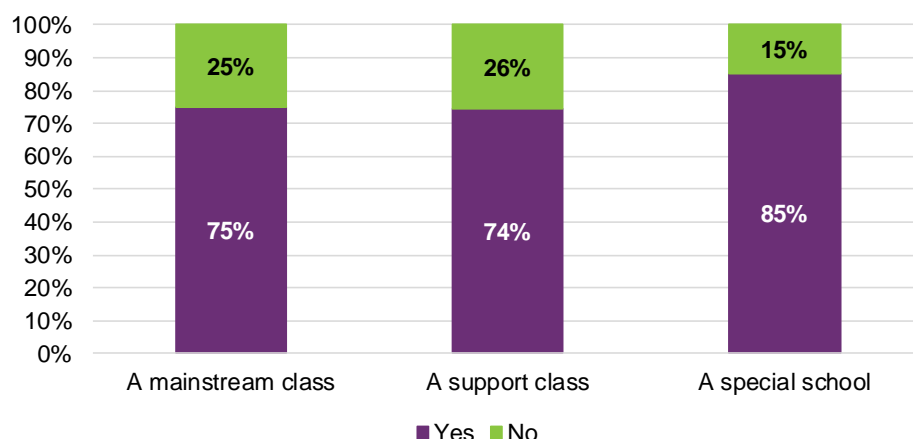
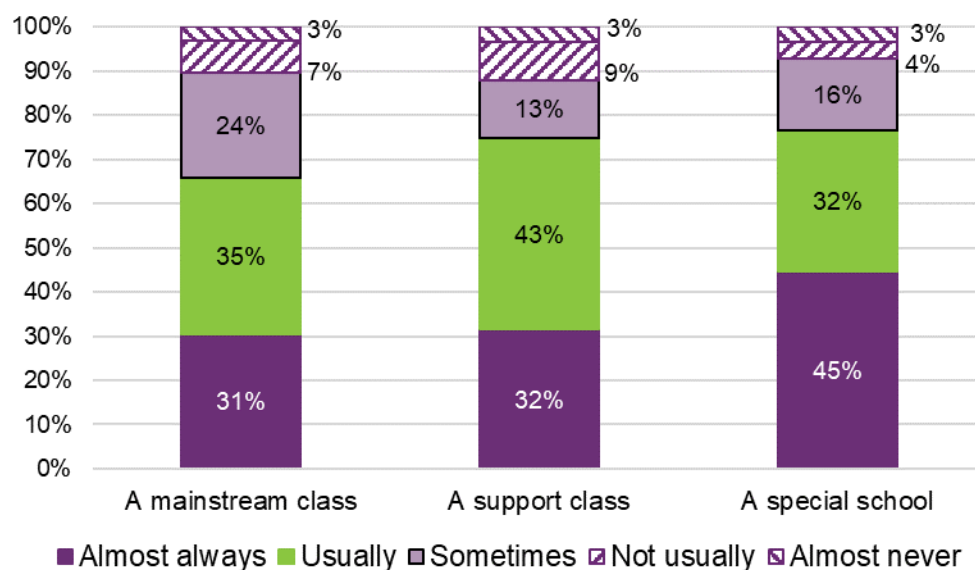


Figure 9.8 Participants from starting school to age 14 – do you think that your child's education is matched to those goals?



Whether these findings reflect a feature of mainstream schools that would be experienced also by students without a disability, or whether they reflect a different experience for students with a disability in mainstream schools, is unknown. Data on the experience of students without a disability would be required to distinguish between these possibilities.

³⁵ See Section 9.2.6 for multiple logistic regression analysis of this question.

9.2.4 Children's experiences at school

The LF includes a number of questions aimed at discovering how positive the school experience has been for the child, and levels of inclusion in different areas.

Figure 9.9, Figure 9.10 and Figure 9.11 summarise response distributions for the three questions seeking parent/carer views on whether the child is learning, genuinely included and happy at school.

Figure 9.9 Participants from starting school to age 14 – I think that my child is learning at school

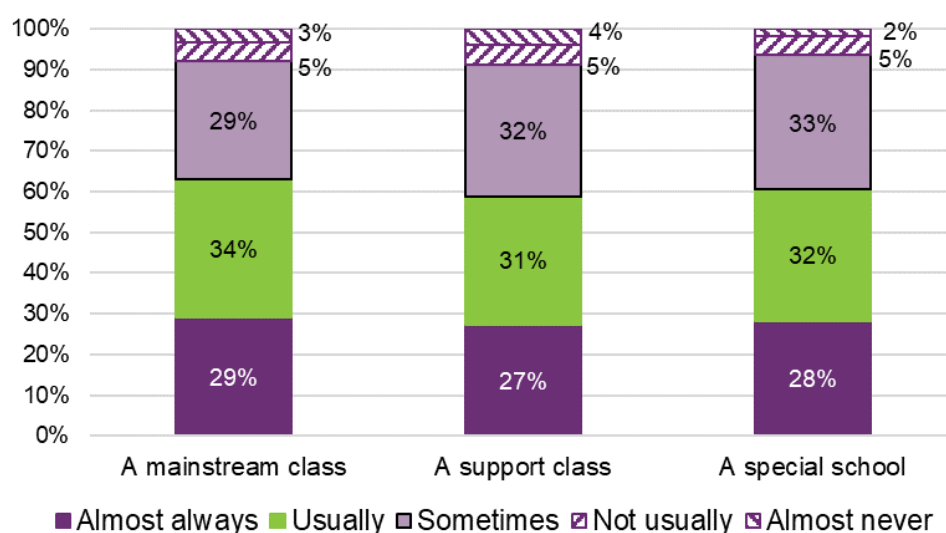


Figure 9.10 Participants from starting school to age 14 – I think that my child is genuinely included at school

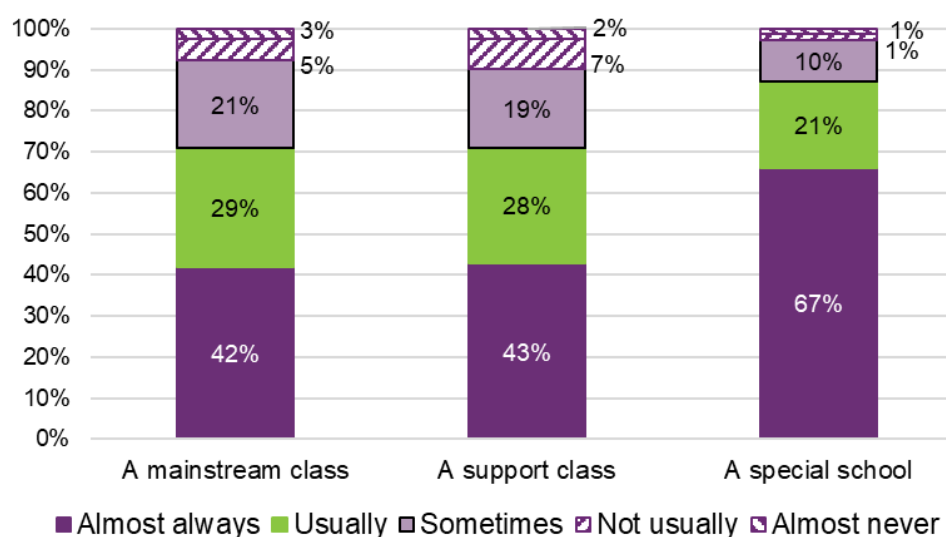


Figure 9.11 Participants from starting school to age 14 – I think that my child is happy at school

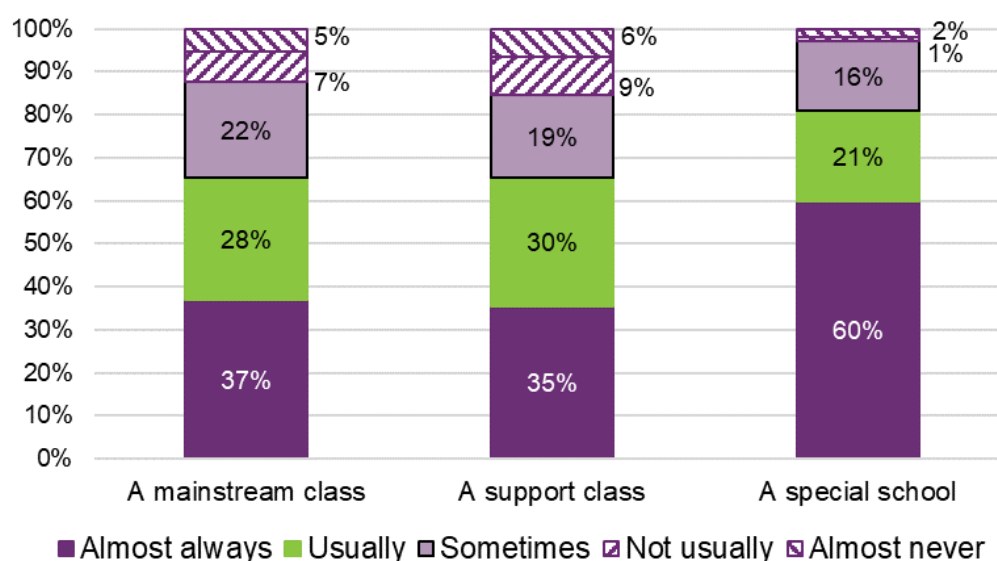


Figure 9.9 indicates that experiences of learning at school are similar across educational settings, with 27-29% thought to be almost always learning and 31-34% usually learning at school. Statistically there is no significant difference.

By contrast, Figure 9.10 and Figure 9.11 reveal that children attending a special school are more likely to be genuinely included, and to be happy at school, than those in mainstream settings. For example, 67% of children in a special school are thought to be almost always genuinely included compared with 42-43% of children in a mainstream or support class, and 60% of children in a special school are thought to be almost always happy compared with 35-37% of children in a mainstream or support class. The differences are highly statistically significant³⁶.

The LF also asks whether the child has ever sat a NAPLAN test, and if not, the reason for not sitting. 36% of children had not sat a NAPLAN test simply because they had not yet been in a NAPLAN test year. Excluding these participants, Figure 9.12 shows the percentages sitting the test and those not sitting due to exemption, absence, or the parent/carer or school not wanting the child to sit, by type of class/school.

³⁶ See section 9.2.6 for multiple logistic regression analysis of these questions.

Figure 9.12 Participants from starting school to age 14 – has your child ever sat a NAPLAN test?

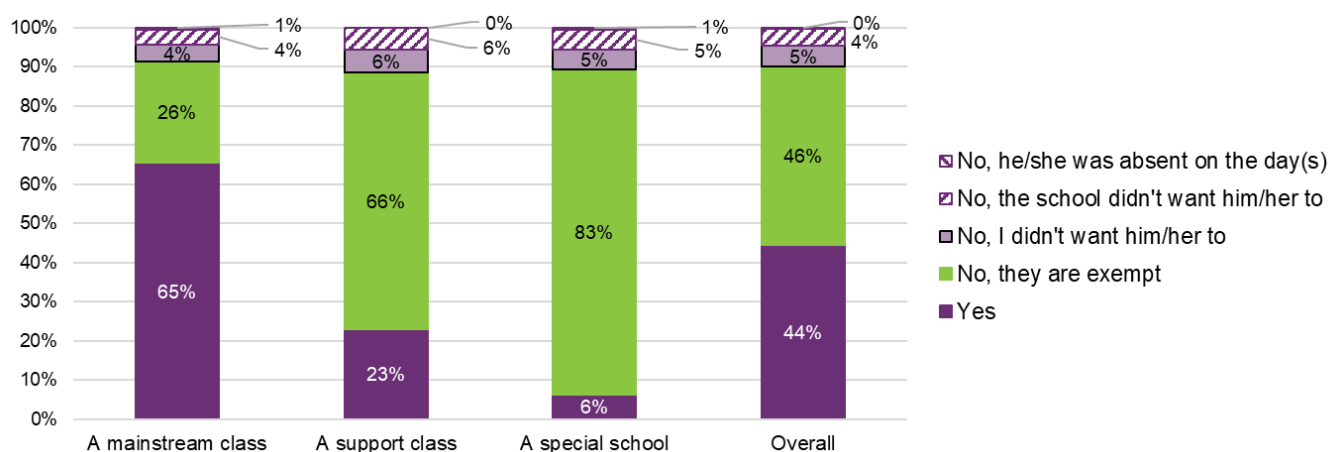
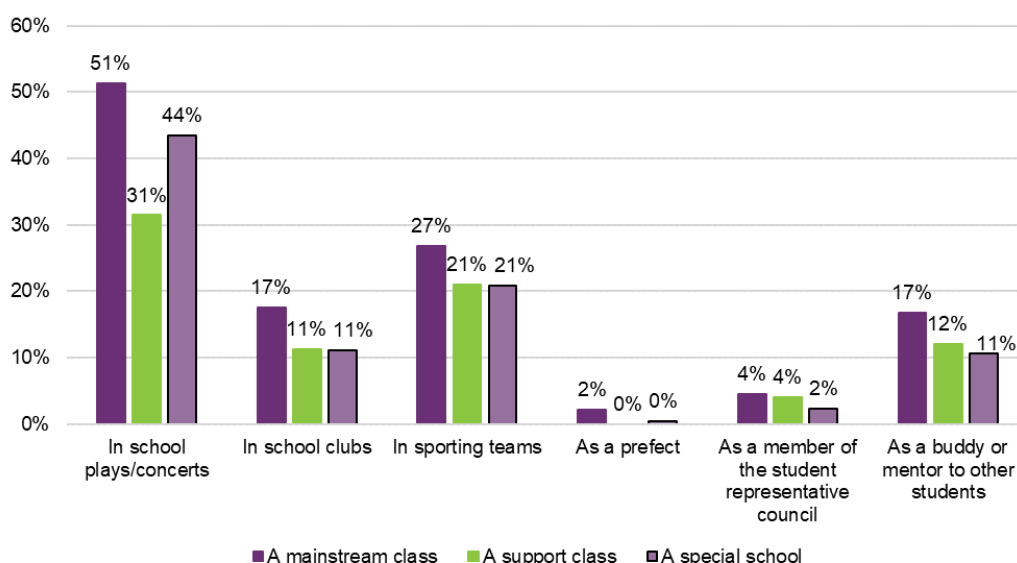


Figure 9.12 shows that overall 44% of participants had sat a NAPLAN test and 46% were exempt. There are two main reasons for a child to be granted exemption from sitting a NAPLAN test: either a language other than English or a disability. Students granted exemption on the grounds of disability are those “with significant intellectual disability and/or those with significant co-existing conditions which severely limit their capacity to participate in the tests”. Hence it is unsurprising that the exemption rate increases from 26% for children in a mainstream class, to 66% for those in a support class, and 83% for those in a special school. By contrast, the nationwide percent exempt in 2017 is around 2%.

Looking at the percentage not sitting NAPLAN for reasons other than exemption, in around 5% of cases the parent/carers did not want the child to sit, and in another 4% of cases the parent/carers reported that the school did not want the child to sit. Very few children were reported as being genuinely absent on the day, although presumably these other reasons were recorded as absences (or possibly withdrawals, where the parent/carers objects to the testing on religious or other grounds). Altogether, 10% of children missed the test due to reasons other than exemption – 9% for those in a mainstream class and 11% for those in a support class or in a special school. Nationally in 2017, the percentage absent or withdrawn averages around 5% for the primary school years 3 and 5, around 5.5% for year 7, and around 8.5% for year 9.

Participation in co-curricular activities is also investigated in the LF. As shown in Figure 9.13, participation was lower across all activities for children in a support class or special school, compare to those in a mainstream class. The low participation in school leadership positions may partly reflect the relatively young age distribution of participants.

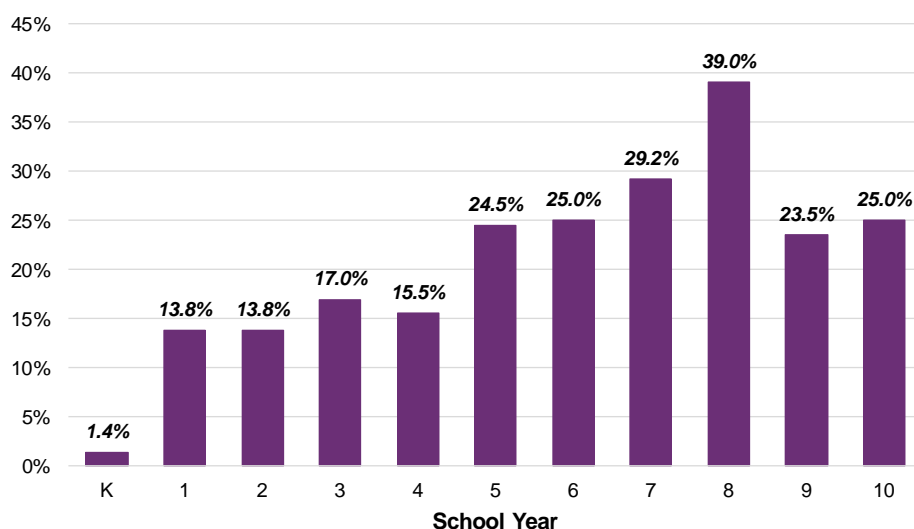
Figure 9.13 Participants from starting school to age 14 – has your child been involved in the following co-curricular activities at school?



The LF asks whether the child has ever been suspended from school.

Overall, 17% of participants had ever been suspended. Figure 9.14 shows the percentages ever suspended by school year.

Figure 9.14 Participants from starting school to age 14 – ever suspended by school year



The percentages shown in Figure 9.14 seem high. Even in the early primary years 1-2, approximately 14% of parents/carers report that their child has ever been suspended, and this rises to 39% for year 8 students³⁷. Available State/Territory benchmarks report statistics on a calendar year basis, and most only report on a number of suspensions, rather than a number of students suspended, basis. Since the same student can be suspended more than once, number of suspensions will be higher than number of students suspended. The NSW

³⁷ Only 21 children are in year 9 or 10 – for the combined year 8 to 10 group, the percentage ever suspended is 34%.

Department of Education reports public school statistics on both bases, yielding an average of 1.55 suspensions per student suspended for 2016.

Data on short (up to four school days) or long (five to 20 school days) suspensions and expulsions for NSW public schools in 2016 are shown in Table 9.1.

Table 9.1 Suspensions and expulsions in NSW public schools, 2016

Year	Total enrolments in mid-year census	Number of students suspended	Percentage of student enrolment	Number of suspensions	Suspensions per student suspended
K-6	477,098	10,320	2.2%		
7-10	217,065	27,864	12.8%		
11-12	87,267	4,096	4.7%		
All Grades	781,430	42,280	5.4%	65,612	1.55
K-10	694,163	38,184	5.5%		
Including expulsions, all Grades					
	781,430	42,603	5.5%		

Since the NSW statistics are on a school (calendar) year basis, it is not possible to directly compare them to the NDIS results, which are on an “ever suspended” basis. However, the early primary years should be roughly comparable, and the 14% for NDIS participants in years 1 and 2 does seem high compare to a 2.2% yearly suspension rate for K-6 students. Rates may vary by State/Territory also, and this has not yet been fully investigated.

Figure 9.15 shows suspensions by year grouping and type of class/school, including home schooled children.

Figure 9.15 Participants from starting school to age 14 – ever suspended by year and type of class/school

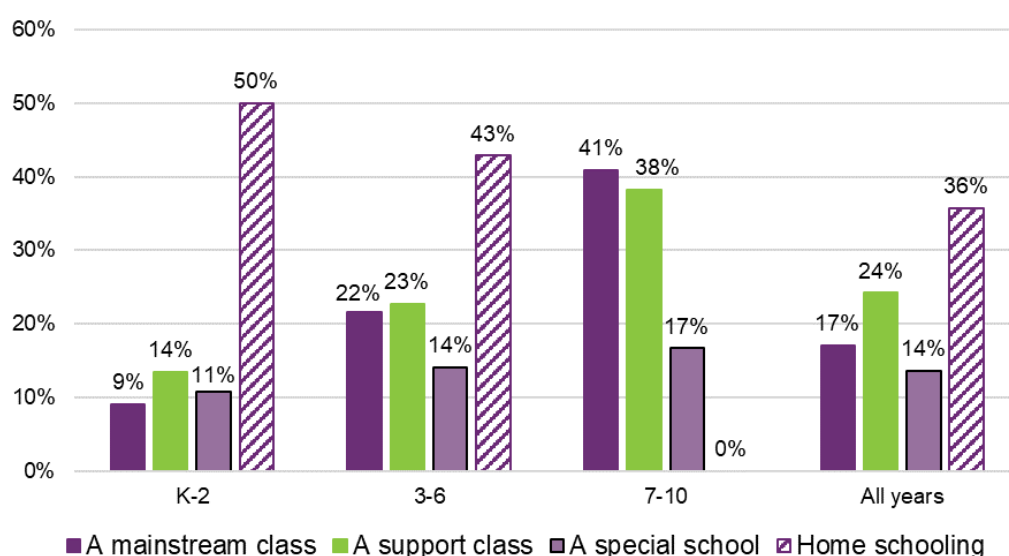


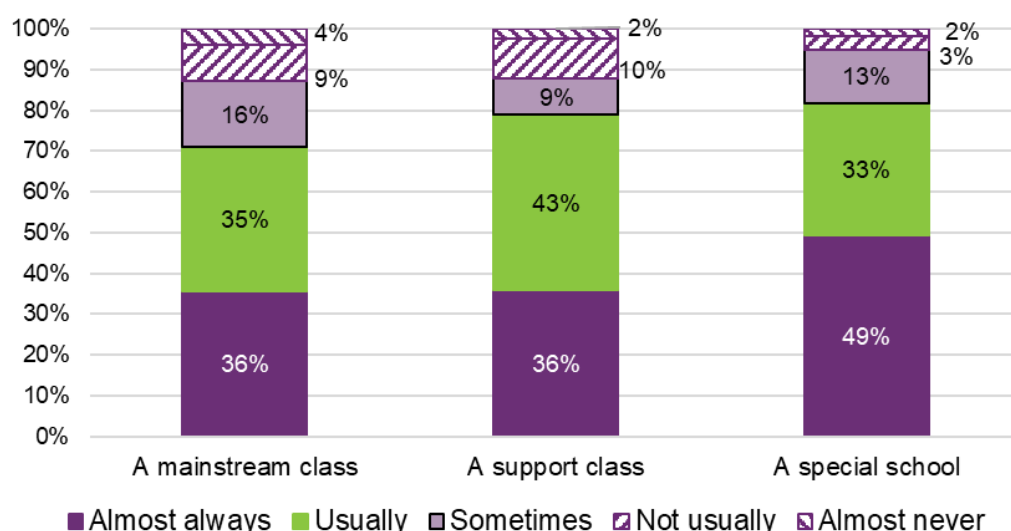
Figure 9.15 shows an overall higher rate of ever being suspended for children in a support class compared to other school settings (24% compared to 17% for mainstream class and 14% for special school), due largely to the higher rate in K-2. For children in a special school, in K-2 the rate is intermediate between a mainstream class and a support class, but for years 3-6 and 7-10 the rate is much lower. The high rate for home schooled children

perhaps reflects the reason why they are being home schooled, but the numbers are very small (only 14 children).

9.2.5 Having a say in child's education

Figure 9.16 shows how satisfied respondents are that their child's school listens to them in relation to their child's education.

Figure 9.16 Participants from starting school to age 14 – I am satisfied that my child's school listens to me in relation to my child's education



Again there is a significant difference between special schools and mainstream settings. For parents/carers of children in a special school, 49% think the school almost always listens to them, compared to 36% of parents/carers of children in either a mainstream or support class.

9.2.6 Factors associated with inclusion and happiness at school, and knowledge of child's goals: multiple regression modelling

As noted above, children attending a special school were more likely to feel genuinely included, and to be happy at school, than those in mainstream settings. Parents/carers of children attending a special school were also more likely to know their child's goals at school. Multiple logistic regression was used to investigate other factors that might impact on feelings of inclusion and happiness, and on knowledge of child's goals. This also allows the impact of educational setting to be assessed after controlling for other factors in the model.

For inclusion and happiness, the probability of answering "Almost always" or "Usually" was modelled, whereas for knowledge of goals, the probability of answering "Yes" was modelled.

The models were selected using stepwise regression³⁸. Key drivers for these indicators are summarised in Table 9.2.

³⁸ R function "step" with default settings.

Table 9.2 Key drivers of positive school experiences and knowledge of child's goals

My child is genuinely included at school		My child is happy at school		Do you know your child's goals at school?	
Variable	Relationship	Variable	Relationship	Variable	Relationship
Participant attends a special school	↑	Participant attends a special school	↑	Participant attends a special school	↑
Participant has autism	↓	Participant has autism	↓	Child is at high school	↓
Participant has cerebral palsy or other neurological disability, developmental delay or global developmental delay, or a sensory disability	↑	Age	↓ with increasing age	Participant has low level of function	↑
Participant has high level of function	↑	CALD	↑		
		Child lives with people not related to them	↑		
		Child is developing functional, learning and coping skills	↑		
		Child is able to manage their emotions	↑		
		Child is learning at school	↑		
		Child participates in co-curricular activities	↑		
		Child has been suspended from school	↓		
		Child has no siblings	↓		

My child is genuinely included at school		My child is happy at school		Do you know your child's goals at school?	
Variable	Relationship	Variable	Relationship	Variable	Relationship
		Child does not get along with siblings	↓		
		Child fits into everyday family life	↑		

Key findings from Table 9.2 are discussed below.

Genuinely included at school

According to the final model, the probability of feeling genuinely included varies by educational setting, disability, and level of function. Controlling for other variables in the model, the estimated effects of each variable were:

- Educational setting: Children in a special school were significantly more likely than those in a mainstream class to feel genuinely included.
- Disability: Children with autism were the least likely to feel genuinely included. Children with cerebral palsy/another neurological disability, developmental delay/global developmental delay, or a sensory disability, were significantly more likely than children with autism to feel genuinely included.
- Level of function: Children with high level of function were the most likely to feel genuinely included, and those with medium level of function were least likely to feel genuinely included.

Happy at school (SF responses)

The item “I think my child is happy at school” is also included in the SF, allowing more in-depth regression modelling to be conducted for this question due to the larger quantity of data.

An ordinal logistic regression model fitted to the SF data revealed the following key findings:

- Educational setting: Children in a special school were significantly more likely than those in a mainstream class to feel happy at school.
- Age: Children aged five years or younger were much more likely to feel happy at school. There was a generally decreasing trend for participants aged six and over.
- Disability: Children with autism were the least likely to feel happy at school. Children with all other disabilities apart from the “other” category were significantly more likely than children with autism to feel genuinely included.
- Children from a CALD background are more likely to be happy at school;
- Children who live with people not related to them are more likely to be happy at school;
- Children developing functional, learning and coping skills, and those able to manage their emotions, are more likely to be happy at school;
- Children who are learning at school, and those who participate in co-curricular activities, are more likely to be happy at school. However children who have ever been suspended from school are less likely to be happy;

- Being happy at school is related to the child's family life. Those without siblings, and those who do not get along with their siblings, are less likely to be happy, and those who fit into everyday family life are more likely to be happy.

Knowledge of child's goals at school

According to the selected model, the probability that a child's parent or carer knows their goals at school varies by educational setting, school year group, and level of function. Controlling for other variables in the model, the estimated effects of each variable were:

- Educational setting: Parents/carers of children in a special school were significantly more likely than parents/carers of those in a mainstream class to know their child's goals at school.
- School year group: Parents/carers of year 7 to 10 high school children were significantly less likely to know their child's goals than parents/carers of children in years 3 to 6 of primary school.
- Level of function: Children with low level of function were significantly more likely to know their child's goals at school than children with high level of function.

9.3 Longitudinal results

9.3.1 LF

Reinterviews of the LF 2016 baseline cohort contribute to the analysis of longitudinal change. Of the 559 participants who contributed a "starting school to 14" questionnaire at baseline, 386 contributed a second questionnaire at review, a reinterview rate of 69%.

Changes in the "lifelong learning" domain

For the LF, a significant³⁹ change was observed for only one of the "lifelong learning" questions: "Do you know your child's goals at school?".

Overall this indicator improved between baseline, where 69% said they knew their child's goals, and review, where the percentage had increased to 80%.

Looking at transition rates for those who said "No" at baseline, the percentages changing to say "Yes" at review were:

- 68% overall;
- 66% for those in a mainstream class;
- 54% for those in a support class; and
- 88% for those attending a special school.

Some care should be taken in interpreting these results due to the small numbers in a support class and at a special school, however they do suggest greater improvement for children attending a special school.

³⁹ Using a test for marginal homogeneity and a significance level of 0.05. Includes participants who responded at both baseline and review (n=370 for this question).

9.3.2 SF

The percentage of children attending school in a mainstream class has declined by 2% between baseline and review. Multiple logistic regression was used to investigate how this change varied by participant characteristics and other measured outcomes.

The model found that children with lower level of function, older children, those with an intellectual disability, and those living in public housing, were more likely to move out of a mainstream class. Conversely, participants in outer regional and remote areas are less likely to move out of a mainstream class compared to those in major cities (possibly influenced by the lack of availability of special schools/support classes in more remote areas).

Children's experiences at school were also associated with moving out of a mainstream class. The more positive the child's experiences at school at baseline, such as learning at school and being involved in co-curricular activities, the less likely the child was to move out of a mainstream class.

9.4 Impact of type of school/class on other outcomes

The analysis presented in Sections 9.2 and 9.3 suggests that the educational experiences of children attending a special school are better in many respects than the experiences of children in a mainstream or support class. Children at a special school are more likely to feel genuinely included and happy at school and their parents/carers have better knowledge of their child's goals at school and tend to be more satisfied that the school listens to them in relation to their child's education.

However, this is not the full picture. Multiple regression analysis of the impact of educational setting on other outcomes reveals the following:

- Parents/carers of children enrolled in a support class in a mainstream school, or in a special school, are less likely to say that their child is becoming more independent.
- Parents/carers of children enrolled in a support class in a mainstream school, or in a special school, are less likely to say that their child has a genuine say in decisions about themselves.
- The percentage of children who can make friends with people outside the family is lower for children enrolled in a support class in a mainstream school, or in a special school.
- Children enrolled in a support class in a mainstream school, or in a special school, are less likely to spend time after school and on weekends with friends and/or in mainstream programs.
- Children enrolled in a support class in a mainstream school, or in a special school, are less likely to spend time with friends without an adult present.

Hence children enrolled in a support class or special school are less likely to be developing independence, to have a genuine say in decisions about themselves, to make friendships, and to participate in mainstream activities. Taking a broader view then, participation in mainstream education confers benefits related to independence, relationships, and social participation that are less likely to be experienced by children attending a special school.

10. Participants from starting school to age 14: Has the NDIS helped?

10.1 Aggregate results

For participants entering the Scheme in the first year of transition, and who have been in the Scheme for approximately one year as at 30 June 2018, Figure 10.1 shows the percentage who think that the NDIS has helped with outcomes related to each of the four domains.

Figure 10.1 Percentage who think that the NDIS has helped with outcomes related to each domain

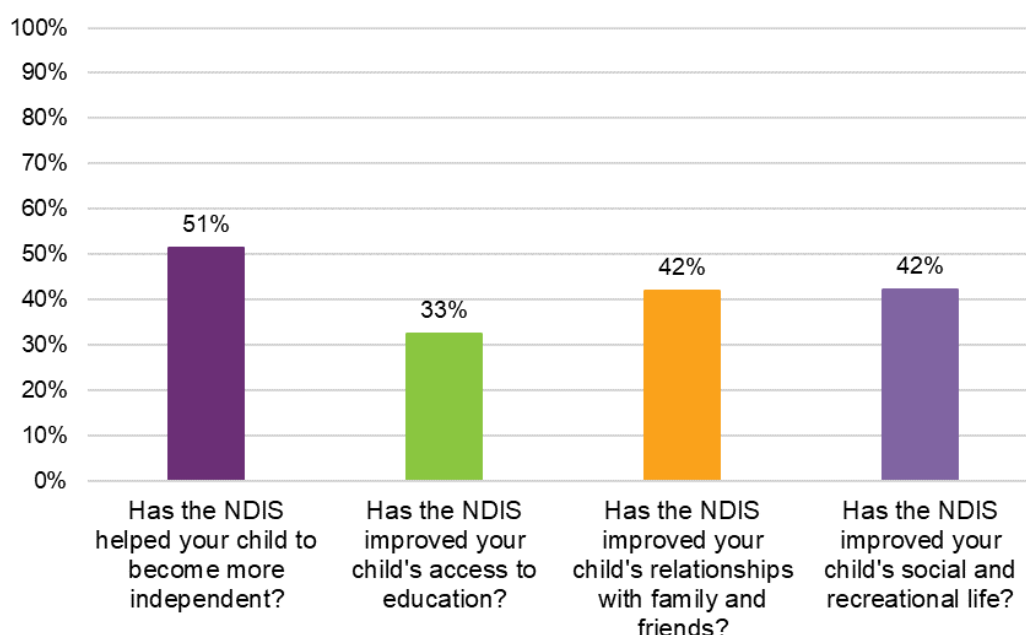


Figure 10.1 shows that opinions on whether the NDIS has helped range from 33% to 51% for the starting school to 14 cohort. The highest percentage of positive responses was for the first domain, where 51% think that the NDIS has helped their child to become more independent. For domain 2, only 33% think that the NDIS has helped with their child's access to education, however to a large extent this is the responsibility of Education rather than the NDIS. Perceptions for domains 3 and 4 are similar, with 42% saying that the NDIS has improved their child's relationships with family and friends, and 42% saying that the NDIS has improved their child's social and recreational life.

10.2 Results by participant characteristics

Analysis by participant characteristics, using one-way analysis and multiple regression, reveals the following key findings:

- Disability type is an important predictor of a positive response for all four domains. Parents/carers of children with a disability in the "Other sensory/speech" group tend to be more likely to say that the NDIS has helped whereas those whose child has a disability in the "Other physical" group tend to be less likely to have a positive opinion. Results for children with a visual impairment or another neurological disability also tend to be less positive. Results for children with Down syndrome are more positive for domain 4 (participation).

- Baseline plan utilisation is also an important predictor for all four domains. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped.
- Annualised cost of baseline plan has some impact on the likelihood of a positive response for all four domains. The main impact occurs for lower cost plans (\$10,000 or under), where an increasing trend towards responding positively as plan cost increases to \$10,000 is observed.
- Self-managing (either fully or partly) tends to be associated with more positive responses.
- Participants from SA and WA tended to be more likely, and those from TAS less likely, to think that the NDIS has helped.
- Participants entering the Scheme for early intervention were more likely to think that the NDIS had helped with outcomes in domains 1 (independence) and 2 (access to education) than those entering due to disability.
- Parents/carers of children from a CALD background were more likely to say that the NDIS had helped with their child's access to education.
- Parents/carers of Indigenous children were less likely to say that the NDIS had helped their child to become more independent. The likelihood of a positive response to this question also declined with decreasing level of function.
- Responses also varied according to other measured outcomes. For example, the likelihood of a positive response in all four domains was positively associated with frequency of happiness at school, and for the first three domains, enrolment in a special school was negatively associated with a positive response. Parents/carers who use a formal school holiday program (whether mainstream or for children with disability) rather than informal care or an NDIS funded support, tended to answer more positively for domains 1 (independence), 3 (relationships) and 4 (social participation).

11. Participants aged 15 to 24: overview of results

11.1 Key findings

Box 11.1: Key findings for participants aged 15 to 24

- In the longitudinal analysis, significant improvements were observed across a number of indicators, including the percentage in a paid job (by 3.7%, from 15.7% at baseline to 19.3% at review) and the percentage participating in a community group in the last 12 months (by 6.5%, from 31.4% at baseline to 37.9% at review). More participants expressed a desire for greater choice and control (an increase of 9.6%, from 71.6% to 81.2%).
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.
- Participants with a sensory disability generally experience better outcomes. At baseline, participants with a psychosocial disability do not do as well as participants with other disabilities, and this is observed across all domains. Interestingly, participants with a visual impairment have much higher rates of volunteering (21% compared to 13% overall). Also of note is the considerable variation in smoking rates by disability, ranging from 0% for participants with Down syndrome to 31% for participants with a psychosocial disability (the overall rate is 7%).
- Participants from regional and remote locations tend to experience higher levels of choice and control, and are much more likely to know people in their community than those living in major cities. However they are less likely to have a regular doctor and more likely to have difficulty accessing health services.
- Participants from a CALD background tend to have lower baseline levels of choice and control but tend to be happier with their home.
- At baseline, Indigenous participants have slightly higher levels of choice and control than non-Indigenous participants. However, Indigenous participants were almost twice as likely to say they often felt lonely, were less happy with their home, and had poorer health outcomes. Indigenous participants were almost four times as likely to smoke (23% compared to 6% for non-Indigenous participants).
- Deeper analysis of employment outcomes suggests that participants looking for paid work are more likely to be successful when they have higher educational qualifications, start to require support in fewer daily activities, have greater choice over what they do each day, and have got to know people in their community. Conversely, participants with complex needs, those living in a high unemployment area, and those needing support in an increased number of daily activities, are less likely to be successful.
- For participants who are not involved in a community group at baseline but would like to be, factors increasing the likelihood of success include volunteering, having a paid job, and participating in education or training in a class for students with disability at baseline.

Box 11.1: Key findings for participants aged 15 to 24 (continued)

- Opinions on whether the NDIS has helped vary considerably by domain for the young adult cohort, being lowest for work (21%) and home (24%), and highest for choice and control (61%) and daily activities (59%). Higher baseline plan utilisation is a strong predictor of a positive response across all eight domains. Perceptions also tended to improve with increasing plan cost. Participants from QLD and WA tended to be more positive, and those from TAS and ACT less positive.

11.2 Results overview – participants aged 15 to 24

11.2.1 Outcomes framework questionnaire domains

Typically the young adult cohort is characterised by increasing levels of independence and participation in community, with individuals moving out of the family home, and transitioning from school to employment or further study.

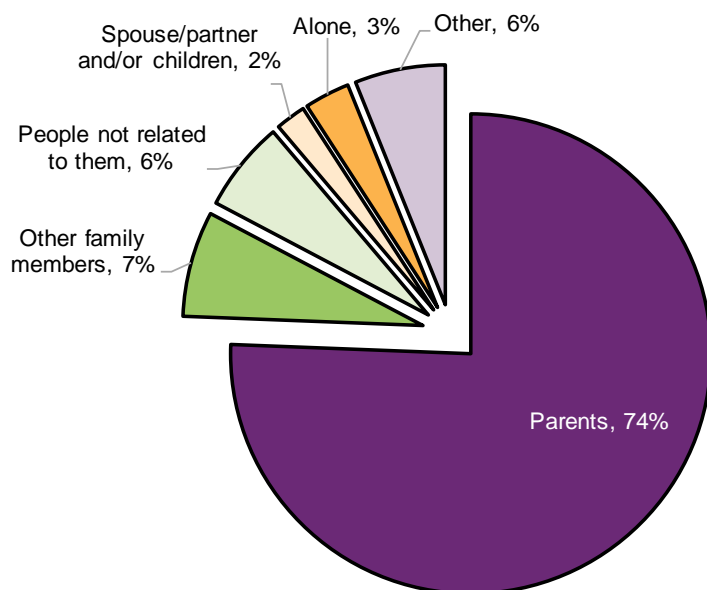
The LF contains a number of extra questions for the adult cohorts, across all domains, but particularly in the health and wellbeing domain.

11.2.2 Participant living arrangements

Overall, 74% of young adult participants live with their parents. 7% live with other family members, 6% with people not related to them, 3% with a spouse/partner and/or children, and 3% live alone (Figure 11.1).

Most participants (80%) are in a private home either owned or rented from a private landlord. 12% of participants live in a private home rented from a public authority. 4% are in supported accommodation, 1% in residential care or a hostel and a further 1% in a boarding house, short-term crisis accommodation, a temporary shelter, or a nursing home.

Figure 11.1 Participant living arrangements



11.2.3 Baseline indicators – aggregate

Independence

The SF includes some questions designed to investigate whether participants aged 15 to 24 exhibit growing independence and increased choice and control over their lives, as would be expected for young adults generally. More than half the participants had experienced increased independence/ control over their life compared to two years ago, however 61% were still not happy with the level of independence/control they were currently experiencing. 57% said they made more decisions in their life than two years ago, however this includes 33% who would like to make more decisions. Of those who had commenced planning for life post-school, around two-thirds said they had at least some input into the decisions.

Choice and control

More participants chose, or had a say in, what they do each day (83%) and how they spend their free time (85%) than in who supports them (69%), where they live (53%) or who they live with (53%). The majority (64%) said their family makes most decisions in their life, although 29% said they made most decisions themselves. 92% said they had someone who supports them to make decisions. Overall, 80% said they would like more choice and control in their life.

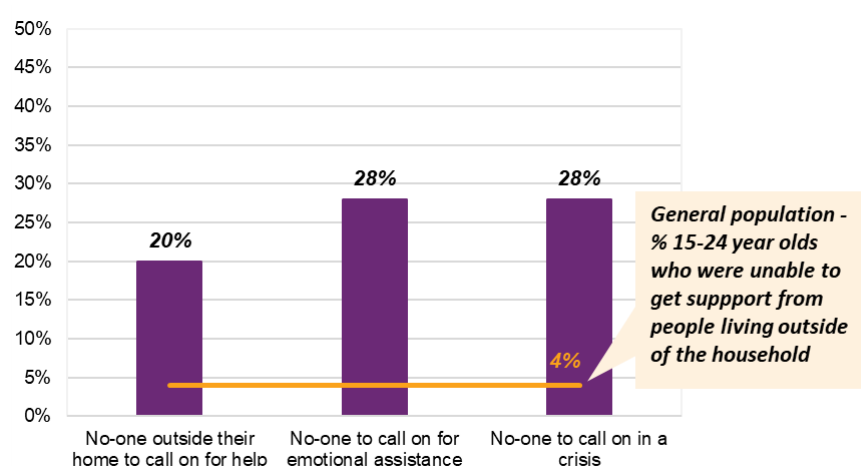
Daily living

Support for daily living was most needed for domestic tasks (86%) and travel and transport (85%), and least needed for personal care (56%) and using technology (44%). Where support was needed, it was most often received for personal care, domestic tasks, and finances/money (82%-85%), and least often received for communication (70%) and using technology (61%). For those receiving support, generally low percentages (ranging from 32%, for getting out of the house, to 65%, for finances/money) felt that it met their needs. One-quarter of participants needed support in all of the eight areas surveyed.

Relationships

Looking at relationships, 20% of participants said they had no-one outside their home to call on for help, 28% had no-one to call on for emotional assistance, and 28% had no-one to call on in a crisis. By comparison, the ABS General Social Survey (GSS) asks “Are you able to get support in times of crisis from persons living outside the household?”, and the proportion of 15 to 24 year olds who said they were unable to get support was 4% for the 2014 survey (Figure 11.2).

Figure 11.2 Ability to get assistance



Whilst only 4% of respondents said they provided care for others, 58% of these said they needed help to continue caring, and only one-third said they received enough help.

29% of participants said they did not have any friends apart from family or paid staff. 47% said they got to see their friends without family or paid staff present. Overall, 72% were happy with their relationships with staff. 22% said they often feel lonely.

Home

34% of participants were planning for a home of their own, with slightly less than half having some input into the planning. 81% were happy with their current home, however 35% said they would not want to live there in five years' time, mainly because they wanted to choose

their future home. 35% cited lack of support as a barrier to living in a home of their choice, with 21% citing lack of affordable housing. 85% said they felt very safe or safe in their home.

Health and Wellbeing

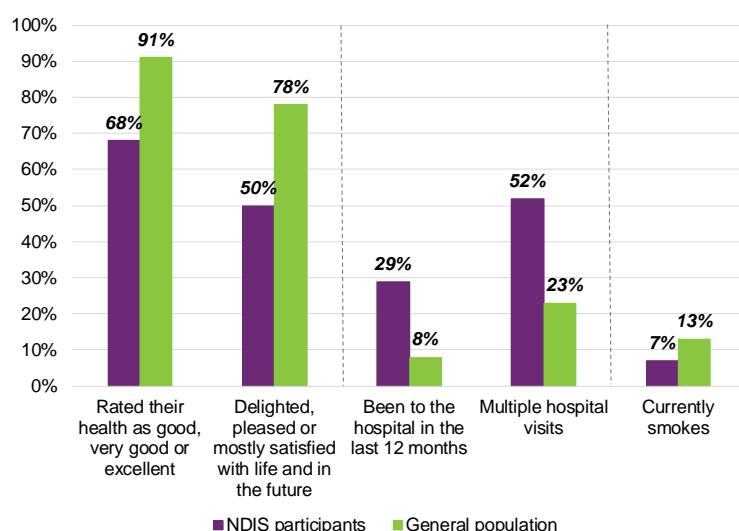
People with disability generally rate their health as poorer than other Australians⁴⁰, and this holds true for NDIS participants. 68% of the young adult cohort rated their health as good, very good or excellent, compared to 91% of Australians aged 15 to 24 overall⁴¹. NDIS participants also express lower overall life satisfaction than the general population. When asked to think about their life now and in the future, on a seven-point scale from “delighted” to “terrible”, 50% of young adult participants responding to the LF said they felt either “delighted”, “pleased” or “mostly satisfied”, compared to 78% of Australians aged 18 to 24 overall⁴².

NDIS participants are also more likely to go to hospital than Australians generally. 29% of young adult participants had been to hospital in the last 12 months, compared to 8% of Australians aged 15 to 24⁴³. Moreover, 52% of those who had been to hospital have had multiple visits, compared to a population figure of 23% for Australians aged 15 to 24⁴³.

32% of the young adult cohort said they had experienced some difficulty in getting health services. The most common reason cited was access issues (11%), however 7% said it was because of the attitudes and/or expertise of health professionals.

7% of the young adult cohort said they currently smoked, and this is lower than a 2014-15 population figure for 15 to 24 year olds of 13%⁴¹.

Figure 11.3 Health and wellbeing indicators of participants compared with the general population



⁴⁰ Australian Institute of Health and Welfare (AIHW) (2018) Australia's Health 2018.

⁴¹ ABS National Health Survey (NHS) 2014-15.

⁴² ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

⁴³ ABS Patient Experience Survey (PES) 2016-17.

Lifelong learning

Regarding education and training, 29% of the cohort said their schooling was (or had been) in a mainstream class. Whilst 60% said they had opportunities to learn new things, 35% said they did not but would like to. 40% said there was a course or training they wanted to do but were unable to do in the last 12 months.

Work

8% said they were currently working in an unpaid job, whilst 17% were working in a paid job. Of those not currently working in a paid job, 59% said they would like one and 41% said they didn't want one.

Social, civic, community participation

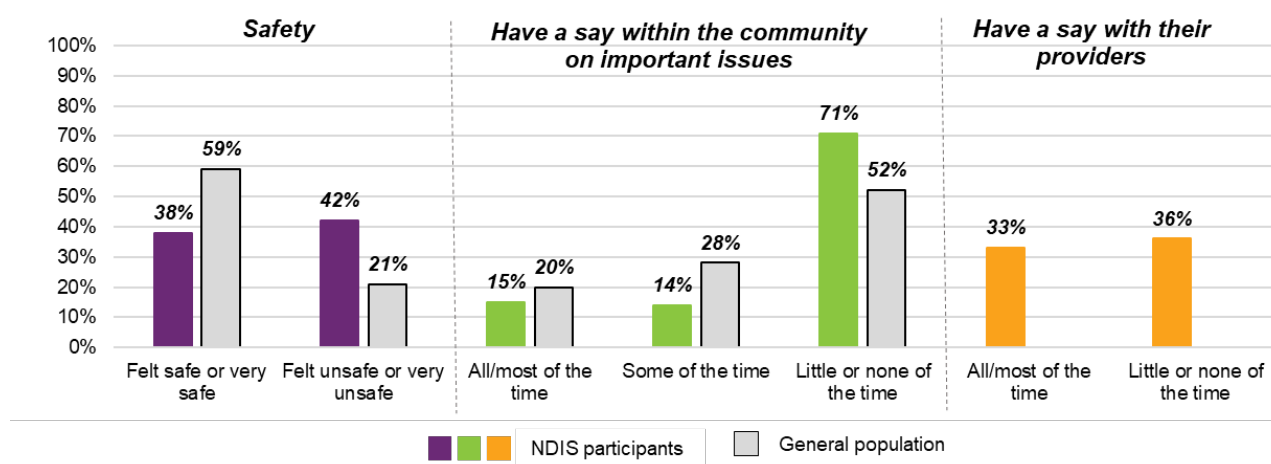
13% of participants said they currently volunteered, and a further 27% expressed an interest in volunteering. 32% had been involved in a community, cultural or religious group in the last 12 months, with 83% of LF respondents feeling a sense of belonging to the group. Also from the LF, 30% said they had had negative experiences in their community in the past 12 months.

The GSS asks "How safe or unsafe do you feel walking alone in your local area after dark?", with responses on a five-point scale from "Very safe" to "Very unsafe". The LF also asks this question, however with an additional response option "I never go out alone", which was chosen by 71% of respondents. Of those who do go out alone, 38% said they felt safe or very safe whereas 42% said they felt unsafe or very unsafe. From the 2014 GSS, the corresponding figures for 15 to 24 year olds were 59% and 21%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 15% of participants felt able to have a say all of the time or most of the time, 14% some of the time, and 71% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 15 to 24 year olds were 20%, 28% and 52%.

33% of participants felt able to have a say with their support providers either all of the time or most of the time, however 36% were only able to have a say a little of the time or not at all.

Figure 11.4 Social, civic and community participation indicators, NDIS participants compared with the general population



11.2.4 Baseline indicators – participant characteristics

Baseline indicators have been analysed by participant characteristics using one-way analyses and multiple logistic regression modelling. Key findings from these analyses include:

- **Level of function**

Baseline outcomes tend to be better for participants with higher level of function, and those with lower cost plans. However the percentage who feel happy about relationships with staff exhibits an increasing trend with plan cost, and is lowest for participants with high level of function. Participants with low level of function/high plan cost are also more likely to want to live in their home in five years' time, and are more likely to have a regular doctor and to have had health check-ups in the previous 12 months.

- **Culturally and linguistically diverse backgrounds**

Participants from a CALD background exhibit generally lower levels of choice and control, and a higher percentage want more choice and control. Many of the participation indicators are also worse for CALD participants: they are less likely to spend free time doing activities that interest them, to volunteer, to know people in their community, and to have a say with service providers. However they are slightly less likely to be unable to do something they wanted to in the last 12 months, and slightly more likely to be involved in a community group. CALD participants are slightly more likely to be happy with their current home, and more likely to want to stay there in five years' time.

- **Indigenous**

- For most of the choice and control indicators, Indigenous participants achieve slightly better outcomes than non-Indigenous participants.
- For relationships, Indigenous participants are more likely to want to see their family more often, but less likely to want to see their friends more often. Indigenous participants are more likely to provide care for others (7% compared with 4% for non-Indigenous participants). Although based on smaller numbers in the LF, Indigenous participants were almost twice as likely to say they often felt lonely (40% compared to 21% for non-Indigenous participants, $p=0.03$).
- Indigenous participants were less likely to be happy with their home or to want to live there in five years' time, and less likely to feel safe or very safe in their home.
- Health and wellbeing experiences for Indigenous participants also tended to be worse, with poorer self-rated health, and higher proportions experiencing difficulties accessing health services, and having been to hospital in the last year. Based on the LF, Indigenous participants were almost four times as likely to smoke (23% compared to 6% for non-Indigenous participants, $p=0.003$).
- Indigenous participants were less likely to get opportunities to learn new things or to participate in education, training and skill development, less likely to have a paid job (12% compared to 18% for non-Indigenous participants), and slightly less likely to volunteer (9% compared to 13%). However they were slightly more likely to know people in their community (60% compared to 55%).

- **Age**

As expected, the level of choice and control tends to increase with age. Some relationship indicators also improve with age, for example the percentage with someone outside their home to call when they need help increases with age, and the percentage with no friends other than family or paid staff decreases. However the percentage who would like to see their family more often increases. Also as expected, the percentage happy with their current home tends to decrease with age. Older participants are slightly less likely to feel safe in their home, however are more likely to feel safe getting out in the community. Although based on small numbers in the LF, overall life satisfaction appears to increase with age for the young adult cohort. There is a sharp drop off in the percentage participating in education, training, or skill development, from 65% for those aged 17 or younger (many of whom are still at school), to 40% for those aged 18 to 21, and 25% for those aged 22 or older. Opportunities to learn new things also become less widespread with age, decreasing from 69% for those aged 17 or younger to 54% for those 22 or older. Many of the participation indicators improve with age.

- **Disability**

- Participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability exhibit higher levels. Participants with a psychosocial disability are less likely to be happy with their current level of independence, and more likely to want more choice and control in their life.
- Participants with a psychosocial disability are also more likely to want to see their family and friends more often, and are more likely to be carers (10% compared to 4% overall). Participants with autism are the most likely to have no friends other than family or paid staff, followed by those with a psychosocial disability.
- Participants with a psychosocial disability are much less likely to be happy with their current home and to want to live there in five years' time, and are much less likely to feel safe or very safe in their home (70% compared to 85% overall). Feelings of safety in the community are also lower for those with a psychosocial disability (38% compared to 44% overall), as well as for participants with a visual impairment (37%).
- Self-rated health is much poorer for those with a psychosocial disability, with 41% rating their health as good, very good or excellent compared to 68% overall. Conversely, self-rated health is much better for participants with a sensory disability. Compared to an overall rate of 32%, participants with a psychosocial disability (47%), a physical disability (41%), or cerebral palsy/another neurological disability (41%) are the most likely to have experienced difficulties accessing health services, and those with a sensory or intellectual disability the least likely.
- Participants with a psychosocial disability also tend to have worse outcomes for lifelong learning, being less likely to have opportunities to learn new things and to participate in education and training, and more likely to have been unable to do a course or training they wanted to do in the last 12 months.
- Baseline employment levels are lower for participants with cerebral palsy/another neurological disability, a psychosocial disability, or autism.
- Participants with a visual impairment have higher rates of volunteering (21% compared to 13% overall). Participants with a sensory disability are more likely to participate and to know people in their community, and more likely to feel able to have a say with their service providers. Participation in community

is lower for participants with autism or a psychosocial disability, whilst those with autism or an intellectual disability are the least likely to feel able to have a say with their service providers.

- From the LF, 7% of young adult participants smoke, but this varies considerably by disability. Although based on small numbers, 31% of participants with a psychosocial disability smoke, whereas none of the participants with Down syndrome say they smoke.

- **Geography**

Participants living in major cities tend to experience lower levels of choice and control compared to those in regional and remote areas. However they are less likely to want to see their family more, and more likely to be happy with their home and to want to live their in five years' time. They tend to have slightly poorer self-rated health, however participants living in outer regional or more remote areas are less likely to have a regular doctor and more likely to have difficulty accessing health services. Participants in regional and remote areas are much more likely to know people in their community than those living in major cities.

- **Self-management**

Self-management is associated with better outcomes in some areas (although this may partly reflect other characteristics of self-managing participants). For example, self-managing participants are more likely to choose who supports them and what they do each day, to be happy with their home and to feel safe there, to attend school in a mainstream class and get opportunities to learn new things, to have a paid job, to volunteer, to participate and know people in their community, and to have a say with service providers.

- **Gender**

Female participants were less likely to rate their health as good, very good, or excellent, more likely to have been to hospital in the past year, and less likely to feel safe getting out in the community.

11.2.5 Longitudinal indicators – aggregate

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants entering the Scheme in the first year of transition (from 1 July 2016 to 30 June 2017) for whom a record of outcomes is available at two time points: at scheme entry and at approximately one year following scheme entry.

As expected during this relatively short period, many indicators have not changed a great deal. For this summary we select indicators based on a combination of statistical significance and magnitude of change^{44,45}.

Table 11.1 summarises changes for the 16 selected indicators.

⁴⁴ Since there is much more data available for the SF, with more than 5000 participants contributing to the analysis, statistical testing would identify indicators where the magnitude of change is unimportantly small, so we only consider SF indicators where the absolute magnitude of change in the indicator is greater than 0.02 (all of these changes are statistically significant). For the LF, where the quantity of data is much smaller (around 100 participants), selection is based on statistical significance.

⁴⁵ Note that at least some of the observed change may be attributable to normal age-related development, since the young adults will be one year older at the second time point.

Table 11.1 Selected longitudinal indicators for participants aged 15 to 24

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
SF	1	% who make more decisions in their life than they did 2 years ago	57.4%	61.2%	3.9%	Improvement
LF	3	% who feel happy with their relationships with staff	58.7%	89.4%	30.8%	Improvement
SF	5	% who have been to the hospital in the last 12 months	27.7%	23.6%	-4.1%	Improvement
SF	6	Of those who currently participate in education, training or skill development in a mainstream class, % who say it's what they want	79.7%	81.7%	2.0%	Improvement
SF	7	% who have a paid job	15.7%	19.3%	3.7%	Improvement
SF	8	% who spend their free time doing activities that interest them	76.0%	80.4%	4.4%	Improvement
SF	8	% who have been actively involved in a community, cultural or religious group in the last 12 months	31.4%	37.9%	6.5%	Improvement
SF	8	% who know people in their community	52.4%	57.3%	4.9%	Improvement
LF	8	% who feel safe or very safe when walking alone in their local area after dark	9.5%	18.1%	8.6%	Improvement
SF	1	% who want more choice and control in their life	71.6%	81.2%	9.6%	Context dependent
SF	3	% who would like to see their friends more often	55.7%	58.7%	2.9%	Context dependent
SF	4	Of those who are happy with their current home, % who would like to live there in 5 years time	67.0%	64.8%	-2.2%	Context dependent
SF	5	% who have a doctor they see on a regular basis	78.2%	84.4%	6.2%	Context dependent
SF	1	% who feel able to advocate for themselves	33.0%	30.8%	-2.2%	Deterioration
SF	5	% who rate their health as excellent, very good or good	70.5%	67.9%	-2.6%	Deterioration
SF	8	% who wanted to do certain things in the last 12 months, but could not	55.9%	62.3%	6.4%	Deterioration

Key findings from Table 11.1 include:

- The percentage who make more decisions than two years ago has increased, possibly reflecting increasing age. More participants expressed a desire for greater choice and control – whether this is a positive or a negative change depends on the reasons (for example, it could reflect increasing awareness that choice and control is possible).
- There has been a considerable increase in the percentage who are happy with their relationships with staff⁴⁶.
- Whilst self-rated health has deteriorated, more participants have a regular doctor, and fewer have been to hospital in the past year.
- Participation indicators have mostly improved.

⁴⁶ This may partly reflect participants without staff at baseline responding “no” at baseline then subsequently changing their answer to “yes” once they have staff and are happy with them, at review. For future collections, an option “I don’t have any staff” has been added.

11.2.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses modelling improvement in the indicator. That is, for the subset without the indicator at baseline, the probability of meeting the indicator at review is modelled as a function of participant characteristics. For some indicators, deterioration has been modelled in a similar way.

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

For the logistic regression modelling, we have combined data from the 15 to 24 and 25 and over cohorts (adjusting for age in the regressions), so results from that analysis are for participants aged 15 and over.

Some key features of the analyses for selected indicators are summarised below.

Overall, are you happy with your relationships with staff? (LF indicator, overall improvement of 0.308)

One-way analysis suggests that the extent of improvement is greater for participants with an intellectual disability or Down syndrome, but less for those with cerebral palsy or another neurological disorder. Participants in NSW experience greater improvement, as do new entrants to the Scheme.

Do you know people in your community? (SF indicator, overall improvement of 0.049)

Multiple regression modelling reveals the following key findings:

- Improvement is less likely for participants with autism and more likely for those with Down syndrome.
- Improvement is more likely for those living in the Northern Territory and Queensland, and less likely for those living in Victoria. Participants from regional and remote locations are more likely to experience improvement than those in major cities.
- Self-managing participants (fully or partly) are more likely to improve.
- Participants living in an Aboriginal or Torres Strait Islander community residence are more likely to start to know people in their community, whereas those in supported accommodation or a nursing home are less likely.
- Participants who have support from family and friends, and those who feel safe getting out and about in the community, are more likely to improve.

Do you want more choice and control in your life? (SF indicator, went up by 0.096, interpretation depends on context)

Multiple regression modelling reveals the following key findings:

- The likelihood of starting to want more choice and control is lower for participants with lower level of function, and decreases between ages 16-25, and again between ages 41-56.
- Participants who need support with domestic tasks or for getting out of the house are more likely to start seeking more choice and control.
- Participants looking for a paid job are more likely to start wanting more choice and control.

- Participants who are happy with how often they see their friends are less likely to start wanting more choice and control.
- Participants who are involved in a community groups, as well as those who are not involved but would like to be, are more likely to start seeking more choice and control.

12. Participants aged 25 and over: overview of results

12.1 Key findings

Box 12.1: Key findings for participants aged 25 and over

- In the longitudinal analysis, significant improvements were observed across a number of indicators, including the percentage participating in a community group in the last 12 months, which increased by 5.0%, from 36.4% to 41.4%. A number of other participation indicators have improved significantly. More participants expressed a desire for greater choice and control (an increase of 8.5%, from 66.1% to 74.6%).
- However, the percentage in a paid job has not changed significantly, being 26.6% at baseline and 26.2% at review.
- NDIS participants tend to have poorer baseline health and wellbeing outcomes than Australians overall. 48% of participants 25 and over rated their health as good, very good or excellent, compared to 87% of Australians aged 25 to 64 overall⁴⁷. NDIS participants also express lower overall life satisfaction than the general population, with 52% saying they felt “delighted”, “pleased” or “mostly satisfied” with their life, compared to 77% of Australians aged 25 to 64 overall⁴⁸. 41% of adult participants had been to hospital in the last 12 months, compared to 11% of Australians aged 25 to 64⁴⁹. Moreover, 56% of those who had been to hospital had had multiple visits, compared to a population figure of 23% for Australians aged 25 to 64⁴⁹.
- 33% of participants said they had experienced some difficulty in getting health services. The most common reason cited was access issues (10%), however 6% said it was because of the attitudes and/or expertise of health professionals.
- 17% of adult participants said they currently smoked, and this is similar to a 2014-15 population figure for 25 to 64 year olds of 18%⁴⁷. However, there is considerable variation in smoking rates by disability. At 50%, the percentage of participants with a psychosocial disability who smoke is almost four times the percentage for other disabilities combined (13%). At the other extreme, none of the participants with Down syndrome surveyed said that they smoke.
- The impact of disability type on other outcomes varies by domain. For example, at baseline, participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability or multiple sclerosis experience higher levels. However participants with multiple sclerosis have the poorest self-rated health and are more likely to go to hospital. As for the younger adult cohort, participants with a visual impairment are much more likely to volunteer (22% versus 13% overall).
- Baseline and longitudinal outcomes vary with participant level of function. Participants with higher level of function tend to have better baseline outcomes and exhibit higher rates of improvement than those with lower level of function.

⁴⁷ ABS National Health Survey (NHS) 2014-15.

⁴⁸ ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

⁴⁹ ABS Patient Experience Survey (PES) 2016-17.

Box 12.1: Key findings for participants aged 25 and over (continued)

- Results by remoteness were mixed. For example, overall life satisfaction improved with increasing remoteness, as did levels of volunteering and the likelihood of knowing people in the community. However difficulties in accessing health services tended to increase with remoteness, and participants in major cities were more likely to have a paid job.
- Results by CALD status were also mixed, being slightly better for some baseline choice and control indicators but poorer on some health and wellbeing indicators. CALD participants were less likely to smoke.
- At baseline, SF choice and control indicators for Indigenous participants tend to be slightly worse than for non-Indigenous participants. However Indigenous participants are more likely to have someone outside the home to call on for help. Indigenous participants were less happy with their home, were less likely to feel safe at home and in their community, and had poorer health outcomes. Indigenous participants were much more likely to smoke (30% compared to 17% overall).
- Deeper analysis of employment outcomes suggests that participants looking for paid work are more likely to be successful when they have a university degree, when their health improves, and when they have a work goal or employment funding in their plan.
- For participants who are not involved in a community group at baseline but would like to be, factors increasing the likelihood of success include volunteering, having a paid job, and participating in education or training in a class for students with disability at baseline.
- For participants 25 and over, opinions on whether the NDIS has helped tend to be slightly more optimistic than for the young adult cohort, apart from lifelong learning and work, but generally reflect a similar pattern by domain. The percentage who think the NDIS has helped is highest for daily activities (71%), followed by choice and control (67%). Percentages are lowest for home (30%) and work (20%). Higher baseline plan utilisation is a strong predictor of a positive response across all eight domains. Perceptions also tended to improve with plan cost. Participants from QLD and WA tended to be more positive, and those from TAS and VIC less positive.

12.1 Results overview – participants aged 25 and over

12.1.1 Outcomes framework questionnaire domains

Employment is also an important area for the older adult cohort, with the older members of this cohort also starting to transition to retirement. For both young and older adults, choice and control is a normal part of everyday life.

The LF contains a number of extra questions for the adult cohorts, across all domains, but particularly in the health and wellbeing domain.

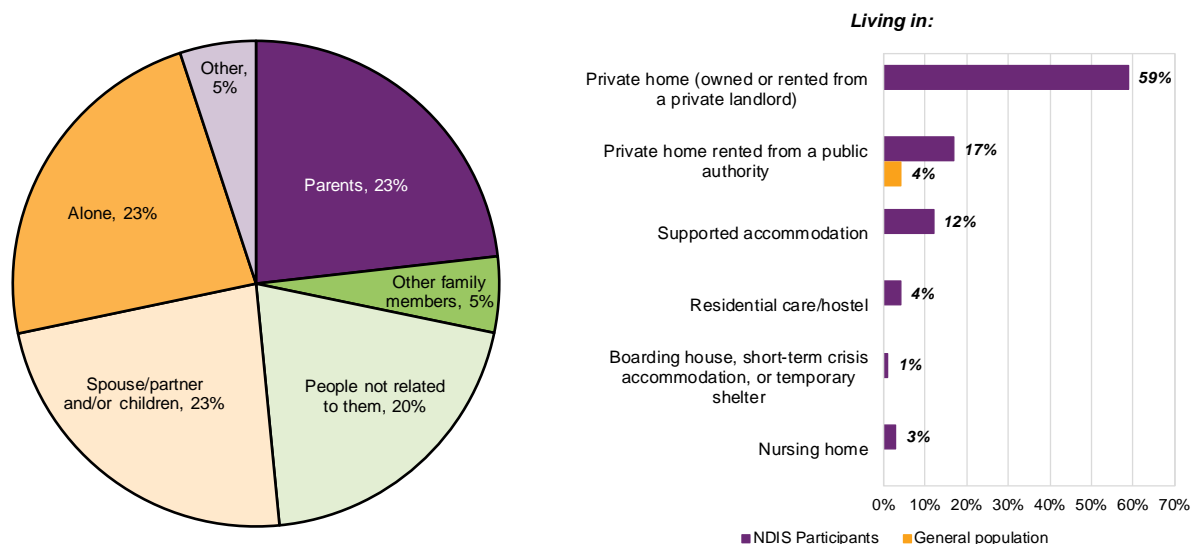
12.1.2 Participant living arrangements

By comparison with the younger adult cohort, participants aged 25 and over are more likely to live alone (23%), or with a spouse/partner and/or children (also 23%), or with people not related to them (20%). However 23% still live with their parents and 5% live with other family members.

For participants aged 25 and over, the percentage in a private home either owned or rented from a private landlord is 59%. 17% of the older adult cohort live in a private home rented from a public authority. 12% are in supported accommodation, 4% in residential care or a hostel and a further 1% in a boarding house, short-term crisis accommodation, or a temporary shelter. 3% live in a nursing home.

The ABS Census of Population and Housing 2016 found that 3.6% of *households* were in public housing (rented from State/Territory governments) and 4.2% were in some form of social housing (including public housing supplied by the government, and community housing supplied by non-government organisations). Although not directly comparable to these household-based percentages, the percentages of participants who say they live in public housing (8%, 10%, 12% and 17% for the four age cohorts) appears higher than the general population.

Figure 12.1 Participant living arrangements – 25 years and over



12.1.3 Baseline indicators – aggregate

Choice and control

More participants chose, or had a say in, what they do each day (90%) and how they spend their free time (89%) than in who supports them (79%), where they live (70%) or who they

live with (53%). The majority (57%) said they made most of the decisions about their lives, with 31% saying their family did, and 7% that their service providers did. 82% said they had someone who supports them to make decisions. Overall, 75% said they would like more choice and control in their life.

Daily living

Support for daily living was most needed for domestic tasks (88%) and travel and transport (81%), and least needed for personal care (55%) and reading or writing (57%). Where support was needed, it was most often received for personal care, domestic tasks, and finances/money (76%-82%), and least often received for using technology (47%). For those receiving support, generally low percentages (ranging from 34%, for getting out of the house, to 76%, for finances/money) felt that it met their needs. 23% of participants needed support in all of the eight areas surveyed.

Relationships

Looking at relationships, 24% of participants said they had no-one outside their home to call on for practical assistance, 24% had no-one to call on for emotional assistance, and 21% had no-one to call on in a crisis. By comparison, the ABS General Social Survey (GSS) asks “Are you able to get support in times of crisis from persons living outside the household?”, and the proportion of 25 to 64 year olds who said they were unable to get support was 5% for the 2014 survey.

Whilst only 14% of respondents said they provided care for others, 72% of these said they needed help to continue caring, and only 15% said they received enough help.

28% of participants said they did not have any friends apart from family or paid staff. Overall, 83% were happy with their relationships with staff. 20% said they often feel lonely.

Home

76% of adult participants were happy with their current home, however 17% said they would not want to live there in five years’ time, with 8% saying this was because they wanted to choose their future home, 3% for reasons related to support needs, and 6% another reason. 31% cited lack of support as a barrier to living in a home of their choice, with 28% citing lack of affordable housing. 76% said they felt very safe or safe in their home.

Health and wellbeing

People with disability generally rate their health as poorer than other Australians⁵⁰, and this holds true for NDIS participants. 48% of the adult cohort rated their health as good, very good or excellent, compared to 87% of Australians aged 25 to 64 overall⁵¹. NDIS participants also express lower overall life satisfaction than the general population. When asked to think about their life now and in the future, on a seven-point scale from “delighted” to “terrible”, 52% of adult participants responding to the LF said they felt either “delighted”, “pleased” or “mostly satisfied”, compared to 77% of Australians aged 25 to 64 overall⁵².

NDIS participants are also more likely to go to hospital than Australians generally. 41% of adult participants had been to hospital in the last 12 months, compared to 11% of

⁵⁰ Australian Institute of Health and Welfare (AIHW) (2018) Australia’s Health 2018.

⁵¹ ABS National Health Survey (NHS) 2014-15.

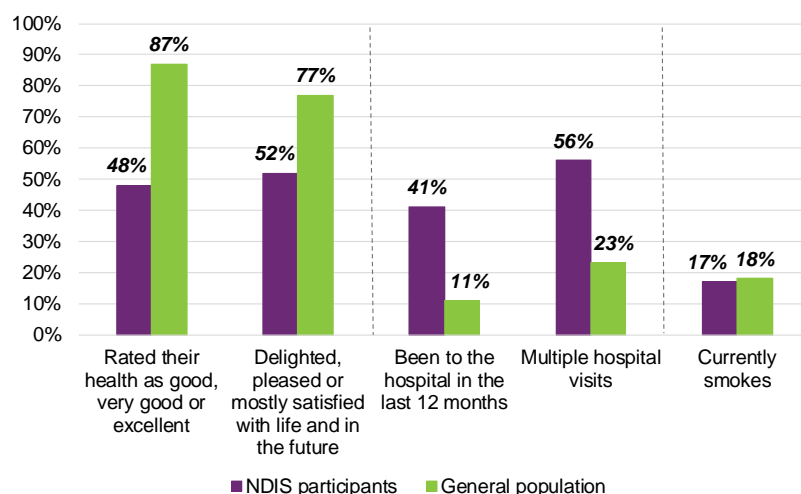
⁵² ABS General Social Survey (GSS) 2010. For GSS 2014 the question changed from using seven descriptive categories to a rating on a 0 to 10 scale.

Australians aged 25 to 64⁵³. Moreover, 56% of those who had been to hospital had had multiple visits, compared to a population figure of 23% for Australians aged 25 to 64⁴³.

33% of the adult cohort said they had experienced some difficulty in getting health services. The most common reason cited was access issues (10%), however 6% said it was because of the attitudes and/or expertise of health professionals.

17% of adult participants said they currently smoked, and this is similar to a 2014-15 population figure for 25 to 64 year olds of 18%⁵⁴.

Figure 12.2 Health and wellbeing indicators for NDIS participants compared with the general population



Lifelong learning

Regarding education and training, 35% said there was a course or training they wanted to do but were unable to do in the last 12 months.

Work

7% said they were currently working in an unpaid job, whilst 25% were working in a paid job. Of those not currently working in a paid job, 30% said they would like one and 70% said they didn't want one. From the LF, 61% of adult participants said they had not had a job in the previous 12 months, 36% had had one job, and 4% more than one. 13% had done some casual work in the previous 12 months.

Also from the LF, 81% of participants currently in a paid job had held that job for more than two years and 6% for less than six months. 93% found their job suitable and 92% said they received the support needed to do their job. For those working in an ADE, 25% could see a pathway to open employment. For those not currently in a paid job, 90% had not applied for any jobs in the previous three months, 5% had applied for one or two jobs, and 5% for three or more.

The LF also attempts to uncover reasons why participants do not have a paid job, and the kinds of assistance that would help them find a job. 26% of participants specified lack of support as the main reason they did not currently have a job, with 8% saying they couldn't

⁵³ ABS Patient Experience Survey (PES) 2016-17.

⁵⁴ ABS National Health Survey (NHS) 2014-15.

find a job, and 7% saying travel was difficult, however the majority (59%) chose the “other” response option. Only a small number of participants provided extra information as to what that other reason was, however those who did mainly cited poor health. Similarly, when asked what assistance would help them get a job, 39% said more support, 10% said help with travel, 9% having a mentor, 5% educating employers, and 3% getting work experience, however 35% chose the “other” response option. The small number who gave extra information mainly said that better health, or a mixture of some/all of the fixed category responses, would help them get a job.

Only 16% of adult participants responding to the LF said they had started planning for retirement, and 72% of these said they made all of the decisions or made the important decisions with help from others.

Social, civic, community participation

13% of participants said they currently volunteered, and a further 23% expressed an interest in volunteering. 36% had been involved in a community, cultural or religious group in the last 12 months, with 90% of LF respondents feeling a sense of belonging to the group. Also from the LF, 25% said they had had negative experiences in their community in the past 12 months.

The GSS asks “How safe or unsafe do you feel walking alone in your local area after dark?”, with responses on a five-point scale from “Very safe” to “Very unsafe”. The LF also asks this question, however with an additional response option “I never go out alone”, which was chosen by 66% of respondents. Of those who do go out alone, 57% said they felt safe or very safe whereas 31% said they felt unsafe or very unsafe. From the 2014 GSS, the corresponding figures for 25 to 64 year olds were 68% and 17%.

NDIS participants were also less likely to feel able to have a say within the community on important issues: 23% of participants felt able to have a say all of the time or most of the time, 12% some of the time, and 66% a little of the time or none of the time. From the 2014 GSS, the corresponding figures for 25 to 64 year olds were 25%, 30% and 45%.

47% of participants felt able to have a say with their support providers either all of the time or most of the time, however 26% were only able to have a say a little of the time or not at all.

12.1.4 Baseline indicators – participant characteristics

Key findings based on one-way analyses are summarised here.

- **Level of function**

Baseline outcomes tend to be better for participants with higher level of function, and those with lower cost plans. However the percentage who feel happy about relationships with staff is higher for higher cost plans, and for participants with low level of function. These participants are also more likely to want to live in their home in five years’ time, and are more likely to have a regular doctor and to have had health/dental check-ups in the previous 12 months.

- **Culturally and linguistically diverse backgrounds**

Results by CALD status tend to be more mixed than for the young adult cohort, for example, being slightly better for some choice and control indicators. CALD participants are more likely to provide care for others (18% compared to 13% for non-CALD participants), more likely to have no friends other than family or paid staff (34% versus 27%), and less likely to feel safe in their home and in the community. Some health and wellbeing outcomes tend to be worse for CALD participants, for example they have poorer self-rated health and are more likely to have difficulty accessing

health services, however they are less likely to smoke than non-CALD participants (10% versus 18%). Many of the participation indicators are also worse for CALD participants: they are less likely to spend free time doing activities that interest them, to volunteer, to know people in their community, and to have a say with service providers. However they are slightly more likely to be involved in a community group.

- **Indigenous**

- Choice and control indicators for the SF tend to be slightly worse for Indigenous participants, who are more likely to want more choice and control in their life. However from the LF, Indigenous participants are more likely to say they chose where they lived (71% versus 55%, $p=0.03$).
- Indigenous participants are more likely to want to see family and friends more often, however from the LF, they are more likely to have someone outside their home to call on for practical support (91% versus 76%, $p=0.01$) and emotional support (87% versus 75%, $p=0.06$) and someone to call on in a crisis (92% versus 78%, $p=0.02$).
- Indigenous participants are less happy with their home (now and in five years' time), and less likely to feel safe in their home and in the community.
- Health indicators also tend to be worse for Indigenous participants, and from the LF, they are much more likely to smoke than non-Indigenous participants (30% versus 17%, $p=0.01$).
- Indigenous participants are less likely to get opportunities to learn new things (34% versus 43%), less likely to participate in education or training (11% versus 14%), and much less likely to have a paid job (14% versus 26%).
- Indigenous participants are more likely to know people in their community (67% versus 62%), but less likely to feel able to have a say with support services (42% versus 47%).

- **Age**

Choice and control indicators tend to improve with age. The percentage who would like to see their family more often increases with age, from 29% for those under 35 to 47% for those 55 or over. Older participants are more likely to think their home will be suitable in five years' time. As expected, self-reported health deteriorates with age, and the percentage who have been to hospital in the last 12 months increases. Older participants are more likely to have a regular doctor and to have had a health check-up in the last 12 months. Opportunities to learn new things, and participation in education or training, become less widespread with age, and the percentage in a paid job declines as participants approach retirement. Involvement in hobbies/interests and opportunities to try new things decline with age. However older participants are more likely to feel able to have a say with support services.

- **Disability**

- Participants with intellectual disability or autism experience lower levels of choice and control, and those with a sensory disability or multiple sclerosis exhibit higher levels. Despite experiencing lower levels of choice and control, participants with an intellectual disability are the least likely to express a desire for more choice and control.
- Overall, 14% of participants provide care for others, but this percentage is much higher for participants with hearing loss or another sensory/speech disability (39%), multiple sclerosis (30%), or visual impairment (28%). Compared to an overall figure of 28%, participants with autism (42%), a psychosocial disability (40%) or an ABI (35%) are more likely to say they have no friends other than family or paid staff, and those with a sensory disability or multiple sclerosis less likely.

- Participants with hearing loss or another sensory/speech disability and those with a psychosocial disability are the least likely to feel safe or very safe in their home (66-67% compared to 76% overall), and those with an intellectual disability are the most likely (84%).
- Participants with multiple sclerosis have the poorest self-rated health and are the most likely to have been to hospital in the previous 12 months. Those with a psychosocial disability are the most likely to have experienced difficulties accessing health services and those with an intellectual disability the least likely. Participants with visual impairment and those with a psychosocial disability are the least likely to feel safe getting out in their community.
- Participants with autism are much more likely to participate in education or training, although this may partly reflect their younger age.
- Participants with ABI, cerebral palsy or another neurological disorder, or a psychosocial disability are the least likely to have a paid job (13-16% compared to 25% overall), whereas participants with hearing loss or another sensory/speech disability are the most likely (60%).
- Participants with hearing loss or another sensory/speech disability are also the most likely to have been involved in a community group in the last 12 months, whereas those with a psychosocial disability are the least likely. Participants with a sensory disability and those with multiple sclerosis are more likely to feel able to have a say with support services, whereas those with autism or an intellectual disability are the least likely. As for the younger adult cohort, participants with a visual impairment are much more likely to volunteer (22% versus 13% overall).
- From the LF, 17% of adult participants smoke, however this varies considerably by disability. At 50%, the percentage of participants with a psychosocial disability who smoke is almost four times the percentage for other disabilities combined (13%). At the other extreme, none of the participants with Down syndrome say they smoke. Age differences do not appear to explain this difference, since the average age for participants with a psychosocial disability is 47 and for those with Down syndrome is 44.

• **Geography**

SF choice and control indicators tend to be fairly similar for participants in major cities and more remote areas, however some of the LF indicators appear worse for participants in inner regional areas compared to either major cities or more remote areas. For relationships, participants from major cities are less likely to want to see their family more but slightly more likely to have no friends other than family or paid staff. From the LF, participants from major cities were more likely to often feel lonely (23% compared to 16% for those in inner regional areas and 10% for those in more remote areas), and less likely to feel happy with relationships with staff (78% versus 90%-92% for more remote locations). The percentage who had difficulty accessing health services tended to increase with remoteness, and the percentage feeling safe in their community tended to increase slightly. Overall life satisfaction also increased with remoteness, with the percentage feeling delighted, pleased, or mostly satisfied increasing from 41% for participants in major cities, to 47% for those in inner regional areas, and 51% for those in more remote areas. Participants from major cities were more likely to have a paid job. The percentage volunteering, and knowing people in their community, increased with remoteness.

- **Self management**

Self-management is consistently associated with better choice and control outcomes. Some relationship indicators are also better, for example, participants who self manage are less likely to say they have no friends other than family or paid staff. They are more likely to get opportunities to learn new things and to participate in education/training, and more likely to have a paid job. Some participation indicators are also better for self-managing participants, and they are more likely to feel able to have a say with their support services (67% compared with 45-46% for Agency and Plan managed, and 55% for combination)⁵⁵.

- **Gender**

The SF choice and control indicators tend to be slightly better for females, however from the LF, males are more likely to say they choose how they spend their free time and who they live with. Females are more likely to want to see their family and friends more, but less likely to have no friends other than family or paid staff. Females are twice as likely to provide care for others, and less likely to receive enough assistance to continue caring. Females are also less likely to feel safe in their home and in the community. They have poorer self-rated health, go to hospital more, and are more likely to have had difficulty accessing health services. However they are more likely to have had health and dental check-ups in the previous 12 months, and less likely to smoke. They are less likely to have a paid job.

12.1.5 Longitudinal indicators – aggregate

Longitudinal analysis describes how outcomes have changed for participants during the time they have been in the Scheme. Included here are participants entering the Scheme in the first year of transition (from 1 July 2016 to 30 June 2017) for whom a record of outcomes is available at two time points: at scheme entry and at approximately one year following scheme entry.

As expected during this relatively short period, many indicators have not changed a great deal. For this summary we select indicators based on a combination of statistical significance and magnitude of change^{56,57}.

Table 12.1 summarises changes for the 25 selected indicators.

⁵⁵ Some of these results may reflect other characteristics of self-managing participants, such as education and socio-economic status.

⁵⁶ Since there is much more data available for the SF, with more than 14000 participants contributing to the analysis, statistical testing would identify indicators where the magnitude of change is unimportantly small, so we only consider SF indicators where the absolute magnitude of change in the indicator is greater than 0.02 (all of these changes are statistically significant). For the LF, where the quantity of data is much smaller (around 200 participants), selection is based on statistical significance.

⁵⁷ Note that at least some of the observed change may be attributable to normal ageing, since participants will be one year older at the second time point.

Table 12.1 Selected longitudinal indicators for participants aged 25 and over

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
LF	1	% who say they have someone who supports them to make decisions (or who don't need anyone)	93.4%	98.6%	5.2%	Improvement
LF	3	% who have someone outside their home to call on for practical support	78.3%	87.7%	9.4%	Improvement
LF	3	% who feel happy with their relationships with staff	67.6%	83.8%	16.2%	Improvement
LF	5	% who feel delighted, pleased or mostly satisfied about their life in general now and in the future	37.7%	47.2%	9.4%	Improvement
SF	5	% who have been to the hospital in the last 12 months	40.0%	36.5%	-3.5%	Improvement
SF	6	% who get opportunities to learn new things	46.3%	49.4%	3.1%	Improvement
SF	6	% who currently participate in education, training or skill development	13.8%	15.8%	2.0%	Improvement
SF	6	Of those who currently participate in education, training or skill development in a mainstream class, % who say it's what they want	53.7%	59.0%	5.2%	Improvement
LF	7	% who get the help they need to do their job	78.0%	94.0%	16.0%	Improvement
SF	8	% who spend their free time doing activities that interest them	68.8%	73.5%	4.7%	Improvement
SF	8	% who have been actively involved in a community, cultural or religious group in the last 12 months	36.4%	41.4%	5.0%	Improvement
LF	8	% who have opportunities to try new things and have new experiences	54.7%	69.8%	15.1%	Improvement
LF	8	% eligible to vote at the last federal election	84.9%	89.6%	4.7%	Improvement
LF	8	% able to have a say within the general community on issues that are important to them, all of the time or most of the time	24.6%	32.7%	8.1%	Improvement
LF	8	For those who have participated in leisure activities in the past 12 months, % who feel those activities were enjoyable	88.2%	95.8%	7.6%	Improvement
LF	8	For those who have participated in leisure activities in the past 12 months, % who feel those activities enabled them to spend time with people they liked	84.9%	93.5%	8.5%	Improvement
SF	8	% who know people in their community	59.5%	64.8%	5.3%	Improvement
SF	1	% who want more choice and control in their life	66.1%	74.6%	8.5%	Context dependent
SF	3	% who would like to see their family more often	34.7%	36.8%	2.2%	Context dependent
SF	3	% who would like to see their friends more often	48.1%	50.4%	2.2%	Context dependent
SF	5	% who have a doctor they see on a regular basis	87.8%	92.4%	4.5%	Context dependent
LF	1	% who choose how they spend their free time	87.7%	77.8%	-9.9%	Deterioration
SF	1	% who feel able to advocate (stand up) for themselves	50.0%	47.6%	-2.4%	Deterioration
SF	5	% who rate their health as good, very good or excellent	51.3%	48.7%	-2.6%	Deterioration

SF/LF	Domain	Indicator	Baseline	Review	Change	Improvement/ Deterioration
SF	8	% who wanted to do certain things in the last 12 months, but could not	59.8%	65.4%	5.6%	Deterioration

Key findings from Table 12.1 include:

- There is considerable overlap with the younger adult age group, with 12 of the 16 indicators highlighted for the 15 to 24 group also appearing in the above table.
- Improvements were observed for seven of the eight participation indicators where a change has been noted.
- As for the younger adult cohort, there has been a considerable increase in the percentage who are happy with their relationships with staff⁵⁸.
- As also observed for the younger adult cohort, whilst self-rated health has deteriorated, more participants have a regular doctor, and fewer have been to hospital in the past year.

12.1.6 Longitudinal indicators – participant characteristics

Analysis by participant characteristics has been examined in two ways:

1. A simple comparison of the percentage meeting the indicator at review with the percentage meeting the indicator at baseline. The difference (review-baseline) is compared for different subgroups.
2. Multiple regression analyses modelling improvement in the indicator. That is, for the subset without the indicator at baseline, the probability of meeting the indicator at review is modelled as a function of participant characteristics. For some indicators, deterioration has been modelled in a similar way.

It should be noted that these two analyses can produce different results, particularly where there is a large difference in the indicator at baseline between subgroups.

For the logistic regression modelling, we have combined data from the 15 to 24 and 25 and over cohorts (adjusting for age in the regressions), so results from that analysis are for participants aged 15 and over.

Some key features of the analyses for selected indicators are summarised below.

Overall, are you happy with your relationships with staff? (LF indicator, overall improvement of 0.162)

One-way analysis suggests that the extent of improvement is greater for participants with an intellectual disability or Down syndrome, but less for those with cerebral palsy or another neurological disorder. Participants in NSW experience greater improvement, as do new entrants to the Scheme.

Do you know people in your community? (SF indicator, overall improvement of 0.053)

Multiple regression modelling reveals the following key findings:

- Improvement is less likely for participants with autism and more likely for those with Down syndrome.

⁵⁸ This may partly reflect participants without staff at baseline responding “no” at baseline then subsequently changing their answer to “yes” once they have staff and are happy with them, at review. For future collections, an option “I don’t have any staff” has been added.

- Improvement is more likely for those living in the Northern Territory and Queensland, and less likely for those living in Victoria. Participants from regional and remote locations are more likely to experience improvement than those in major cities.
- Self-managing participants (fully or partly) are more likely to improve.
- Participants living in an Aboriginal or Torres Strait Islander community residence are more likely to start to know people in their community, whereas those in supported accommodation or a nursing home are less likely.
- Participants who have support from family and friends, and those who feel safe getting out and about in the community, are more likely to improve.

Do you want more choice and control in your life? (SF indicator, went up by 0.085, interpretation is mixed)

Multiple regression modelling reveals the following key findings:

- The likelihood of starting to want more choice and control is lower for participants with lower level of function, and decreases between ages 16-25, and again between ages 41-56.
- Participants who need support with domestic tasks or for getting out of the house are more likely to start seeking more choice and control.
- Participants looking for a paid job are more likely to start wanting more choice and control.
- Participants who are happy with how often they see their friends are less likely to start wanting more choice and control.
- Participants who are involved in a community groups, as well as those who are not involved but would like to be, are more likely to start seeking more choice and control.

13. Participants aged 15 to 24 and 25 and over: employment outcomes

13.1 Key findings

Box 13.1: Key findings for participants aged 15 and over: employment

- As well as individual benefits, increased participation in the workforce of people with disability also produces wider benefits to the Australian economy. Recent economic modelling suggests that lifting employment levels to the OECD average for people with disability would result in an additional 117,000 Australians employed, and an increase in GDP of 0.5% (\$11.9 billion) by June 2030⁵⁹.
- As at 30 June 2018, 23% of working age NDIS transition participants said they had a paid job at entry to the Scheme – 17% of those aged 15 to 24 and 25% of those aged 25 or over.
- For those with a paid job at baseline, 41% of 15 to 24 year olds and 33% of those aged 25 and over were in open employment at full award wages. Conversely, 35% of 15 to 24 year olds, and 49% of those aged 25 and over, were working in an Australian Disability Enterprise (ADE).
- Baseline employment levels were highest for participants aged 25 to 44, however these participants were the least likely to be in open employment at full award wages. Between ages 25 and 59, approximately one-half of all participants with a paid job were working in an ADE. The percentage self-employed is negligible at young ages, but increases to substantial levels at older ages.
- Participants with a hearing impairment were more likely to be in a paid job, and more likely to be in open employment. Participants with neurological disabilities and those with a psychosocial disability had the worst baseline employment levels. Participants with an intellectual disability or Down syndrome were the least likely to be in open employment.
- Preliminary results from linking NDIA and Centrelink data suggest that 77% of NDIS participants aged 16 to 69 were receiving the DSP at July 2018, and 7% of DSP recipients also had an NDIS approved plan at this date.
- Overall, 31% of working age participants have a work-related goal in their plan – 44% of 15 to 24 year olds and 26% of those 25 and over.
- For those who don't have a job at baseline but say they would like one, 9% subsequently had a job at review – 12% of those aged 15 to 24 and 7% of those aged 25 or over.
- Longitudinal analysis suggests that for participants aged 15 to 24, increasing independence and building capacity are important for maximising the chances of getting a job. For participants aged 25 and over, inclusion of work goals and employment funding in participants' plans, and improvement of health outcomes, appear to be more important. The SLES program is only available to the younger cohort and this may be driving some of the differences in employment success rates.
- For those who did have a job at baseline, 88% also said they had a job at review – 80% of those aged 15 to 24 and 90% of those aged 25 or over.
- Participants who are working in an ADE at baseline are significantly more likely to also be in paid employment at review than participants who are working in open employment. However, this apparently greater job security may come at the expense of lower wages and narrower social interactions.

⁵⁹ Deloitte Access Economics 2018. *Increased labour force engagement among Australians with a disability*. Report prepared for the NDIA, September 2018.

Box 13.1: Key findings for participants aged 15 and over: employment (continued)

- A primary aim of the outcomes framework is to help identify providers who are achieving good outcomes for participants, whilst recognising that participant characteristics and other factors outside the control of the provider will also have an impact on outcomes. Consistent with this aim, providers who achieve better than expected employment outcomes have been identified. One provider, Provider A, stood out for its exceptional results in helping young participants aged 15 to 24 to find paid work.

13.2 Employment experience of Australians with disability

Australians with disability experience considerably poorer employment outcomes relative to Australians without disability, and relative to other OECD countries.

Based on the 2015 ABS Survey of Disability, Ageing and Carers (SDAC), for the age range 15 to 64:

- The estimated labour force participation rate⁶⁰ for people with disability⁶¹ was 53.4%, compared to 83.2% for people without disability;
- The estimated employment to population ratio⁶² for people with disability was 48.1% compared to 78.8% for people without disability; and
- The estimated unemployment rate⁶³ for people with disability was 10.0% compared to 5.3% for people without disability.

In addition, increased severity of disability is strongly associated with worse outcomes. The estimated employment to population ratio for people with a core activity limitation in 2015 was 39.6% (almost unchanged from 40.2% in 2012 and 39.8% in 2009).

The OECD average employment to population ratio for people with disability was reported as 44% in 2010. The comparable figure for Australia is 39.8%, the 2009 SDAC estimate for people with a core activity limitation. On this measure, Australia ranked 21 out of 29 OECD countries.

13.3 Benefits of increased employment of Australians with disability

Employment has a considerable positive impact on the overall wellbeing of people with disability. Not only does participation in paid employment increase an individual's level of financial independence, it can also lead to a greater sense of identity and social inclusion. This in turn may lead to positive physical and mental health impacts for people with a disability who engage in the workforce⁶⁴.

More broadly, improved employment outcomes for people with disability and their families/carers is expected to contribute to long-term economic benefits for Australia through increased labour force participation and reduced costs of disability income supports. Modelling⁶⁵ of the impact on the economy as a whole of lifting employment levels to the

⁶⁰ The labour force (employed plus looking for work) as a percentage of population (in the relevant age range).

⁶¹ As defined by SDAC.

⁶² Employed as a percentage of population (in the relevant age range).

⁶³ Unemployed as a percentage of labour force.

⁶⁴ Australian Human Rights Commission. 2015. Issues paper: Employment discrimination against Australians with disability p. 7

⁶⁵ Deloitte Access Economics 2018. *Increased labour force engagement among Australians with a disability*. Report prepared for the NDIA, September 2018.

OECD average for people with disability (with additional increases in participation amongst carers) has found that by June 2030:

- Close to 117,000 more Australians (people with disability and their carers) would be employed – an increase of around 0.8%; and
- Real GDP would be 0.5% – or \$11.9 billion – higher.

These estimates are broadly in line with the original Productivity Commission (PC) estimates of the economic impact of the NDIS⁶⁶, namely:

- An increase in real GDP of around 0.2% resulting from lifting employment participation of people with disability to the OECD average.
- An increase in real GDP of around 1% resulting from the combined effects of higher employment participation of people with disability and their carers, increased hours worked by carers, and the impact of a set of proposed reforms to the Disability Support Pension.

13.4 Employment experience of NDIS participants: baseline

The results in this section are based on SF data collected for working age (15 and over) transition participants. Baseline responses to the question “Are you currently working in a paid job?” from the adult SF work domain contribute to the analysis.

For the above participant cohort, on entry to the Scheme:

- Overall, 23% said they were working in a paid job.
- 17% of 15 to 24 year olds said they were working in a paid job.
- 25% of those aged 25 and over said they were working in a paid job.

A more detailed breakdown by age is shown in Figure 13.1.

⁶⁶ Productivity Commission 2011. *Disability Care and Support*.

Figure 13.1 Percentage in a paid job by age at baseline, participants aged 15 and over

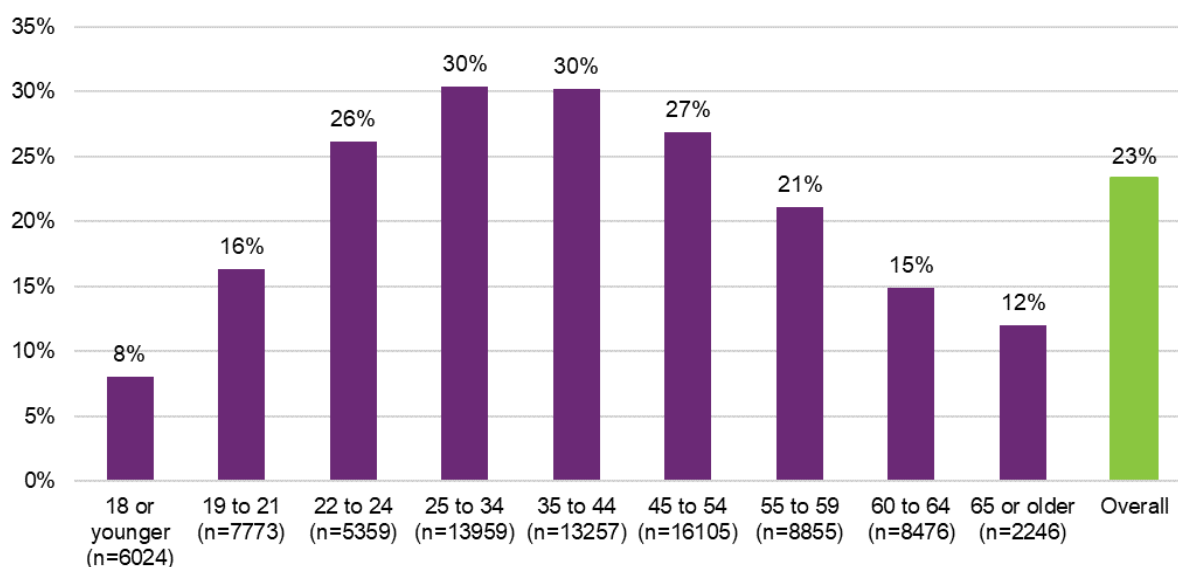
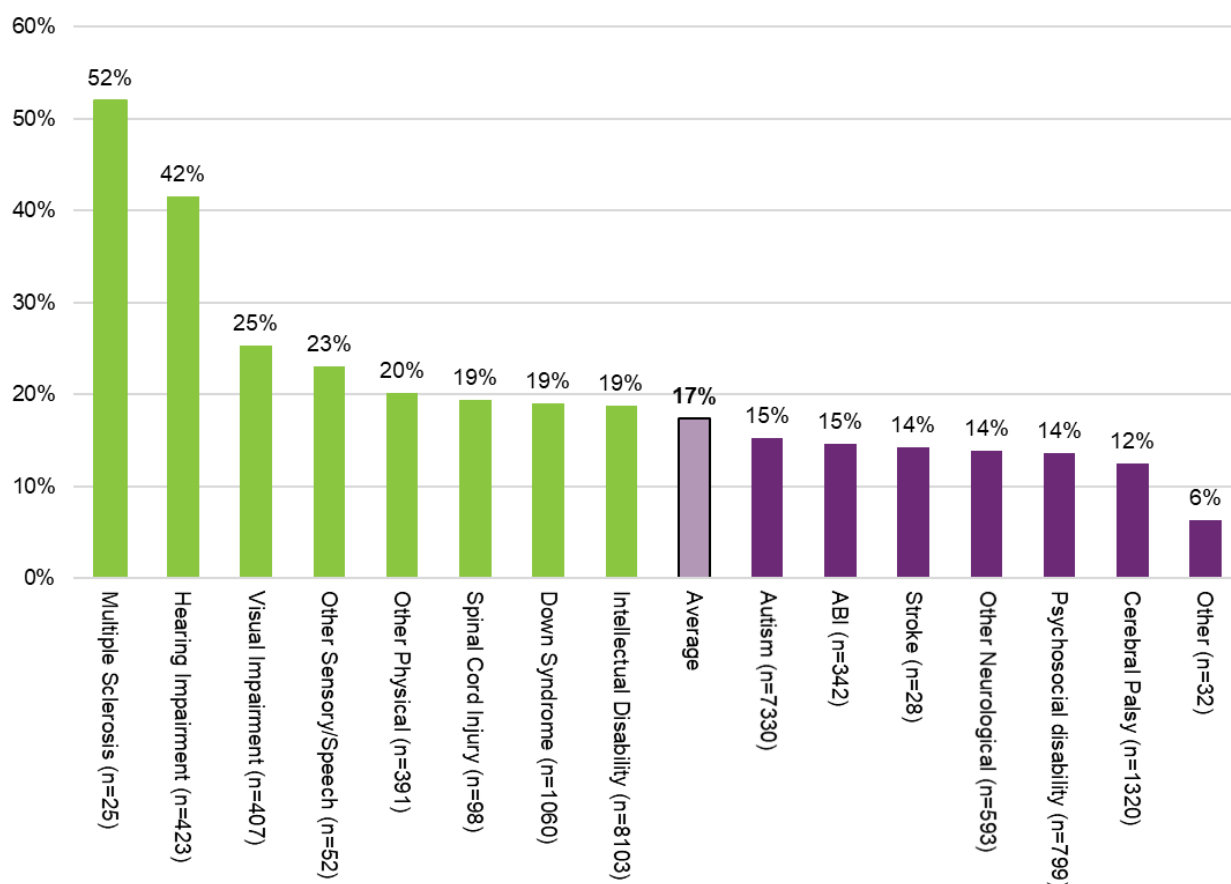


Figure 13.1 shows that the percentage in a paid job increases from very low levels at the youngest ages (8% for those aged 15 to 18) to a peak of 30% for those aged 25 to 44, before declining to 27% for those aged 45 to 54, then declining more rapidly as participants approach retirement, to 12% for those aged 65 or older.

Figure 13.2 shows the percentage in a paid job at baseline by disability type, for participants aged 15 to 24. Percentages are shown in decreasing order, with those above the overall rate of 17% coloured green, and those below the overall rate coloured purple. The corresponding graph for participants aged 25 and over, where the overall rate is 25%, is shown in Figure 13.3.

Figure 13.2 Percentage in a paid job by disability at baseline, participants aged 15 to 24

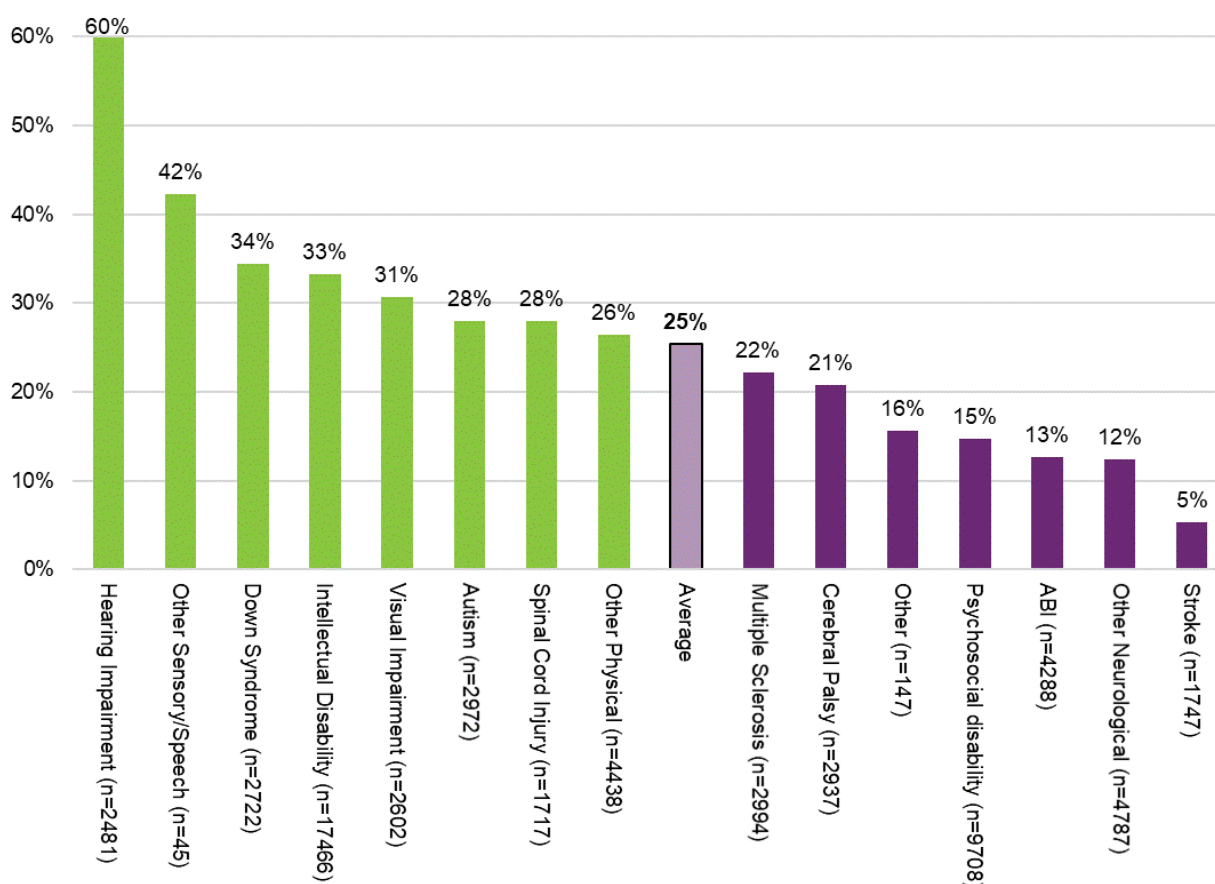


The very high percentage for multiple sclerosis in Figure 13.2 may not be a true representation for this disability since it is based on only 25 participants. Apart from this group, participants with a hearing impairment (N=423) have the highest employment levels for the 15 to 24 age group, with 42% saying they are in a paid job at baseline. This is 2.4 times the overall percentage of 17%. Whilst much lower than for participants with a hearing impairment, percentages are higher than average for participants with other sensory disabilities, at 25% for those with visual impairment (1.5 times the overall percentage, N=407) and 23% for those with another sensory/speech disability (1.3 times the overall percentage, N=52).

Percentages for Down syndrome and intellectual disability are slightly above average (19%, around 1.1 times the overall percentage), and the percentage for autism is slightly below average (15%, around 0.9 times the overall percentage).

Neurological disabilities (ABI, stroke, cerebral palsy and other neurological disabilities) and psychosocial disabilities have the poorest baseline employment levels (12%-15%).

Figure 13.3 Percentage in a paid job by disability at baseline, participants aged 25 and over



The highest percentage in a paid job for the 25 and over age group occurs for participants with a hearing impairment. At 60%, this is 2.4 times the overall percentage of 25%, the same multiple as observed for the younger adult cohort. The next highest percentage is for Other Sensory/ Speech, at 42% (1.7 times the overall percentage), although with 45 participants this group is relatively small.

Visual impairment (31%) has slipped behind Down syndrome and intellectual disability (33%-34%), although this likely reflects higher employment in ADEs (rather than in the open market) for participants with an intellectual disability.

The percentage for multiple sclerosis is 22%, much lower than the 52% for the 15 to 24 age group, likely reflecting a combination of much higher numbers (almost 3000 participants) and the degenerative nature of the disability. On the other hand, the percentage for autism is relatively better, at 28% or around 1.1 times the overall rate.

Neurological disabilities and psychosocial disabilities again experience the poorest outcomes, although cerebral palsy is somewhat improved relative to average compared to the younger age group.

Age becomes more of a factor for the older adult cohort (due to the impact of approaching retirement), and in particular the average age for participants who have experienced a stroke is 56, compared to an overall average age of 47 for participants aged 25 and over, which will contribute to the very low percentage in paid employment (5%) for this group.

The SF adult work domain also asks about type of employment. For those who say they are in a paid job, baseline responses to this question are summarised in Figure 13.4, separately for the younger and older adult cohorts.

Figure 13.4 Type of employment, participants 15 to 24 and 25 and over

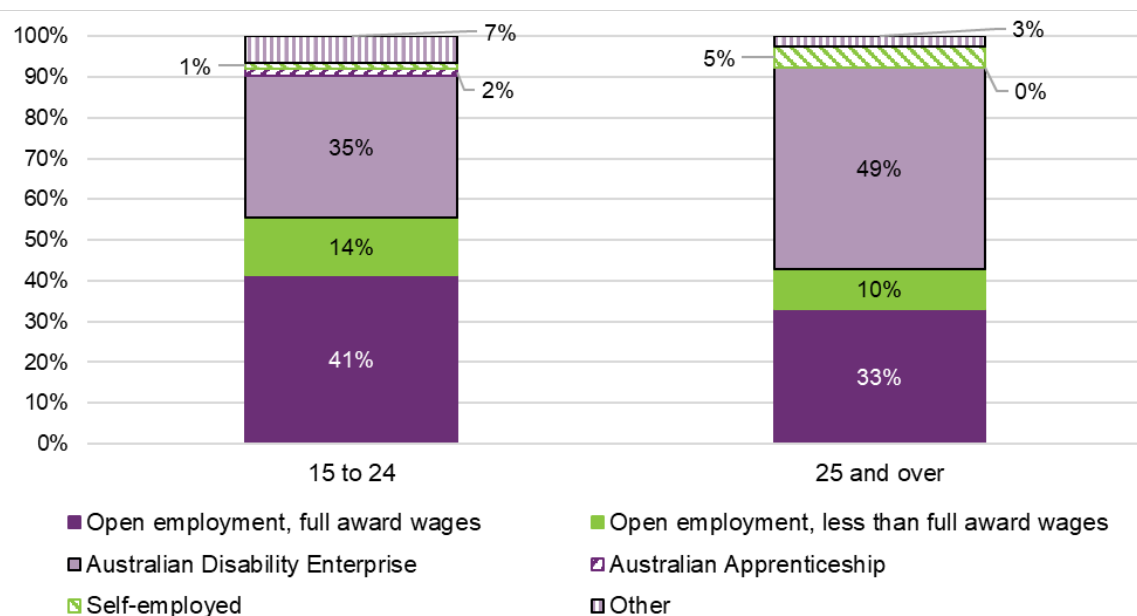


Figure 13.4 shows that the percentage in open employment is higher for 15 to 24 year olds than for those aged 25 and over. 41% of 15 to 24 year olds with a paid job are in open employment at full award wages, with a further 14% in open employment at less than full award wages. The corresponding percentages for the 25 and over cohort are 33% and 10%. Conversely, 49% of older adults are working in an ADE, compared to 35% of younger adults.

Figure 13.5 further breaks these distributions down by age.

Figure 13.5 Type of employment by age, participants 15 and over with a paid job

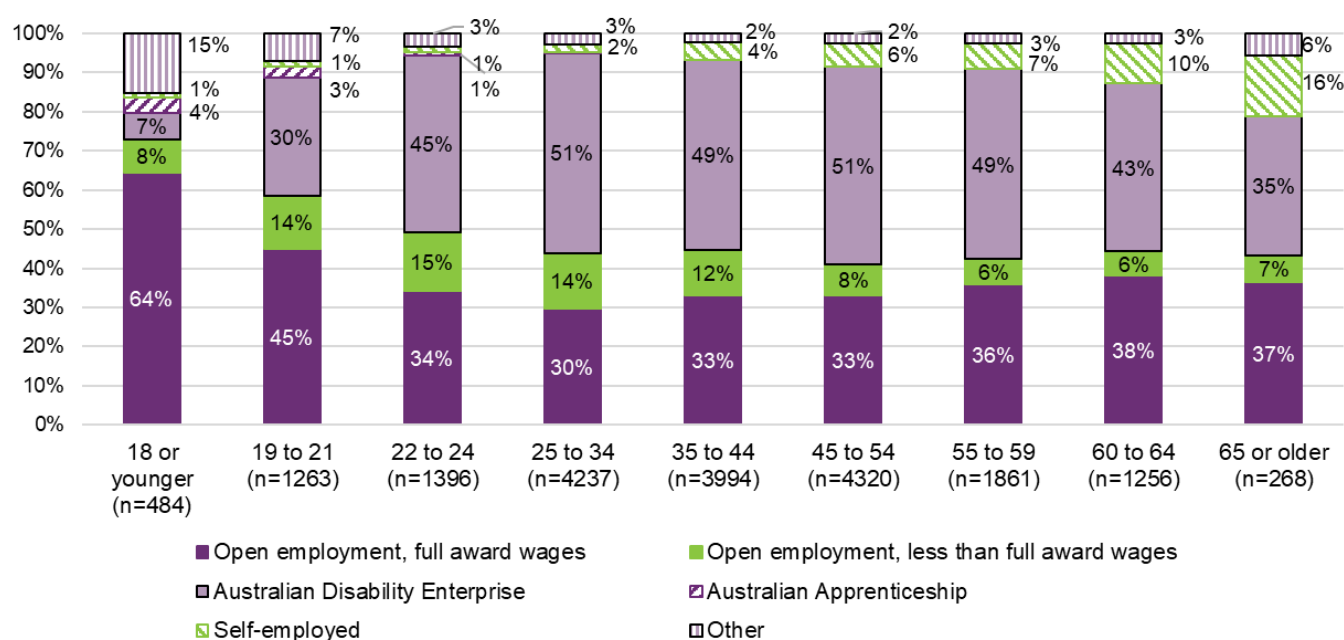
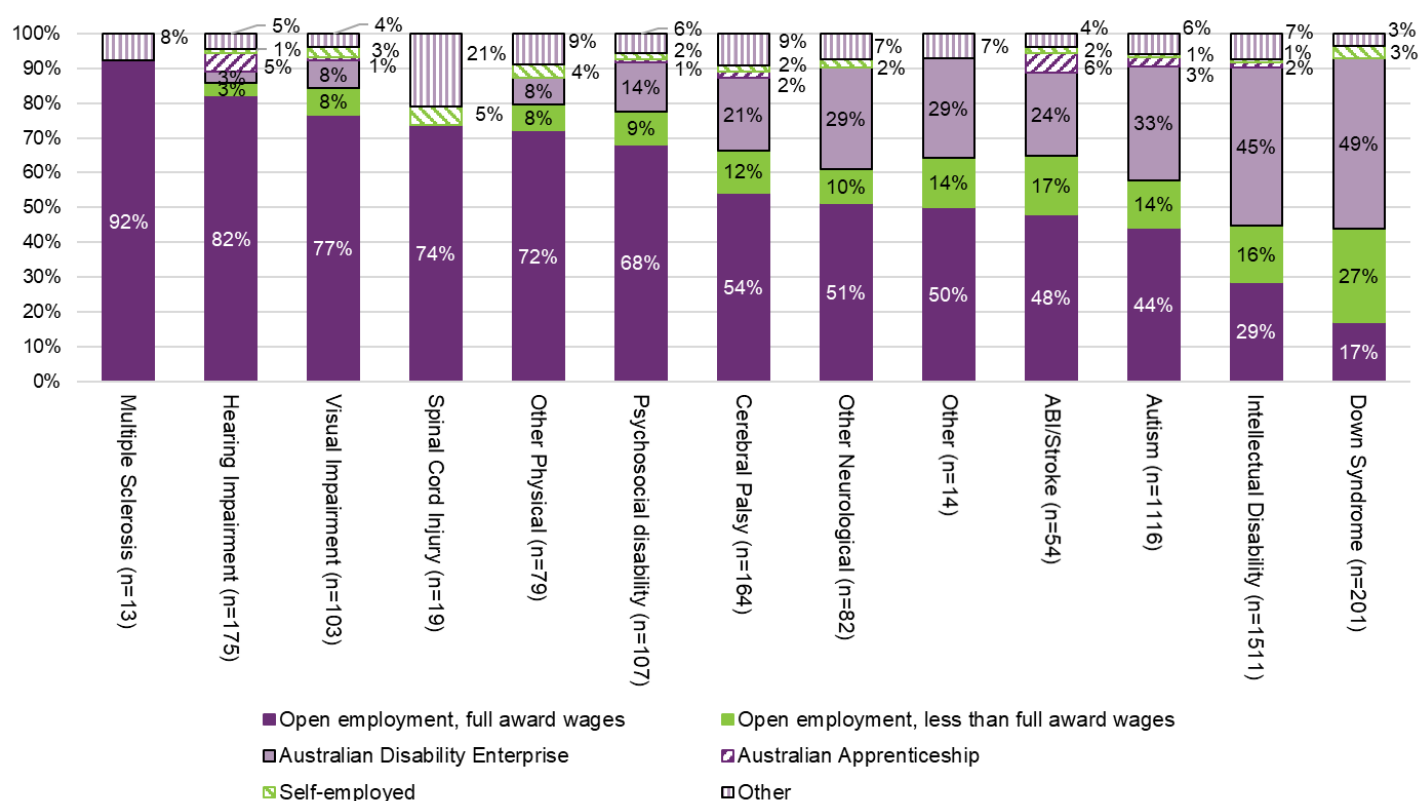


Figure 13.5 shows that the percentage in open employment at full award wages initially declines with age, from 64% for those 18 or younger to 30% for those aged 25 to 34. This is followed by a slight increasing trend, to 37%-38% for those aged 60 or over. The percentage in open employment at less than full award wages tends to decrease with age. The percentage working in an ADE initially increases strongly with age, from 7% for those 18 or younger to 51% for those aged 25 to 34, after which it remains at approximately this level before declining for those aged 60 to 64 (43%) and 65 or older (35%). Also of note is the percentage self-employed, which shows an increasing trend for older age groups, from about 2% for those aged 25 to 34, to 10% for those aged 60 to 64 and 16% for those aged 65 or older.

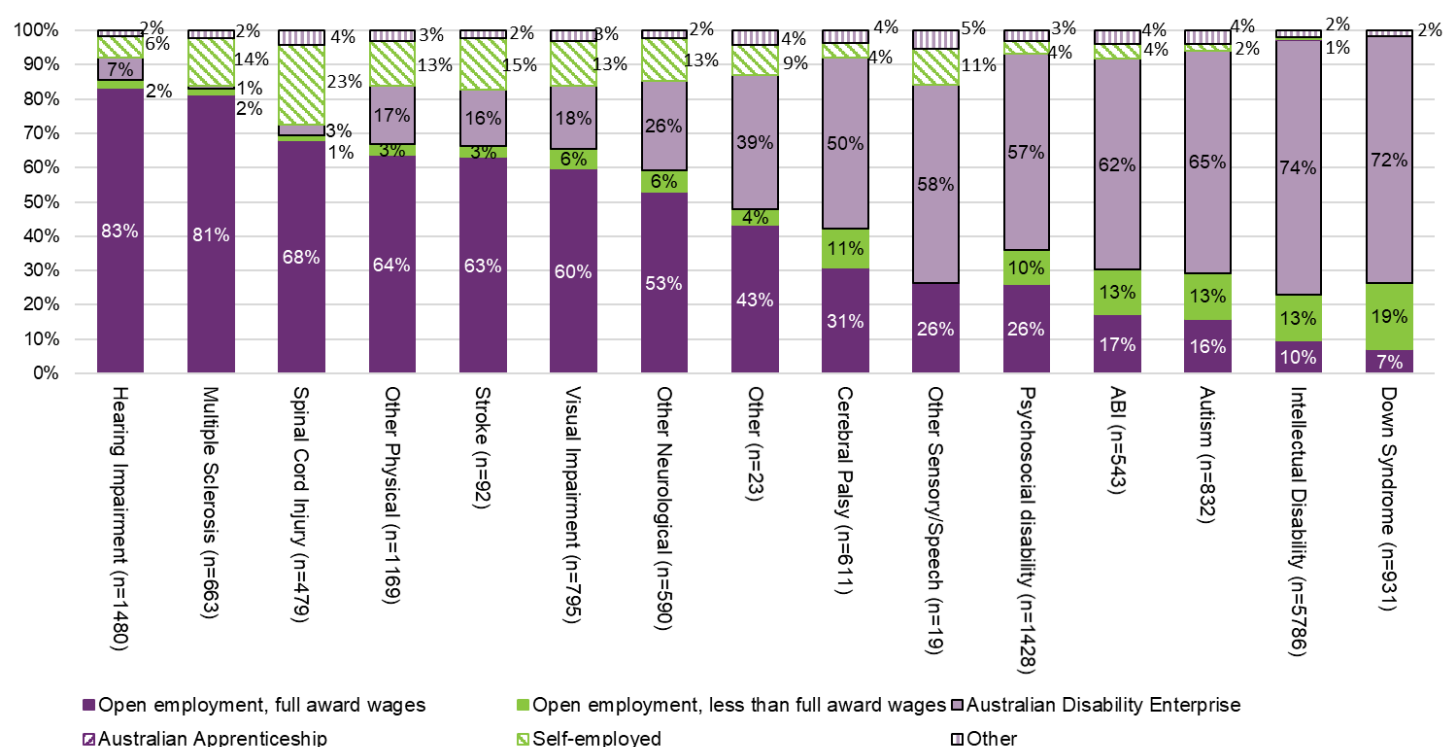
Figure 13.6 (15 to 24) and Figure 13.7 (25 and over) show employment type distributions by disability, ordered by decreasing percentage in open employment at full award wages.

Figure 13.6 Type of employment by disability, participants 15 to 24 with a paid job



Apart from the small group with multiple sclerosis, for the young adult cohort, participants with hearing impairment are the most likely to be in open employment at full award wages (82%), followed by those with visual impairment (77%), a spinal cord injury (74%), another physical disability (72%), and a psychosocial disability (68%). Participants with autism have the third lowest share of open employment at full award wages (44%), but this is still slightly above the overall share (41%). Only two disability groups, Intellectual Disability and Down syndrome, are below this overall percentage, but they make up a large proportion of the total cohort and have shares considerably below the other disability groups (29% for Intellectual Disability and 17% for Down syndrome). Participants with Down syndrome have a much higher percentage in open employment at less than full award wages (27% compared to 16% for Intellectual Disability, for example), bringing the total in open employment to a similar level to Intellectual Disability. Participants with Down syndrome (49%) and intellectual disability (45%) have the highest percentages working in an Australian Disability Enterprise.

Figure 13.7 Type of employment by disability, participants 25 and over with a paid job



For participants aged 25 or over, those with a hearing impairment are the most likely to be in open employment at full award wages, maintaining a similar percentage as for the younger adult cohort (83% compared to 82%). The percentage in open employment at full award wages is also high for those with multiple sclerosis (81%), followed by those with a spinal cord injury (68%). Participants with a spinal cord injury are much more likely to be self-employed than those with other disabilities (23%, with the next highest percentage being for stroke, at 15%). For the older adult group, seven disability groups are below the average of 33% in open employment at full award wages, including cerebral palsy (31%), psychosocial disability (26%), ABI (17%), Autism (16%), Intellectual Disability (10%) and Down syndrome (7%). Older participants with psychosocial disability fare worse in terms of open employment than younger participants, with the percentage in open employment at full award wages declining from 68% for 15 to 24 year olds to 26% for those 25 and over. The percentage working in an Australian Disability Enterprise is highest for participants with an intellectual disability (74%), followed by those with Down syndrome (72%), autism (65%) and an ABI (62%).

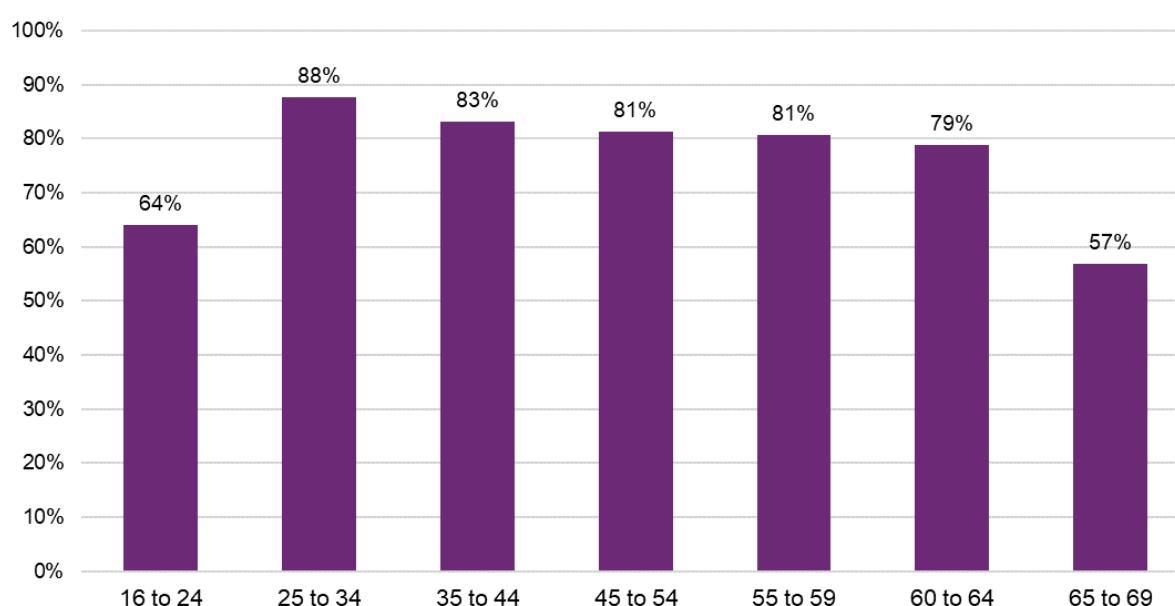
13.5 NDIS participants and the Disability Support Pension: preliminary data linkage results

Increased employment for people with disability is expected to lead to decreased reliance on the Disability Support Pension (DSP), which will have a positive flow on effect on the wider economy.

Measuring the economic impact of reduced reliance on the DSP will require linking of NDIA data with Centrelink data, and a data linkage agreement has been established for this purpose. The economic benefits from this source are expected to be long-term in nature, and not fully realised (or measureable in the longitudinal data) for a number of years. Nevertheless, some preliminary cross-sectional results are presented here to illustrate the current DSP utilisation of NDIS participants.

Overall, 77% of NDIS participants aged 16 to 69 are estimated from the data linkage to be receiving the DSP as at July 2018. Figure 13.8 shows the trend in utilisation by age.

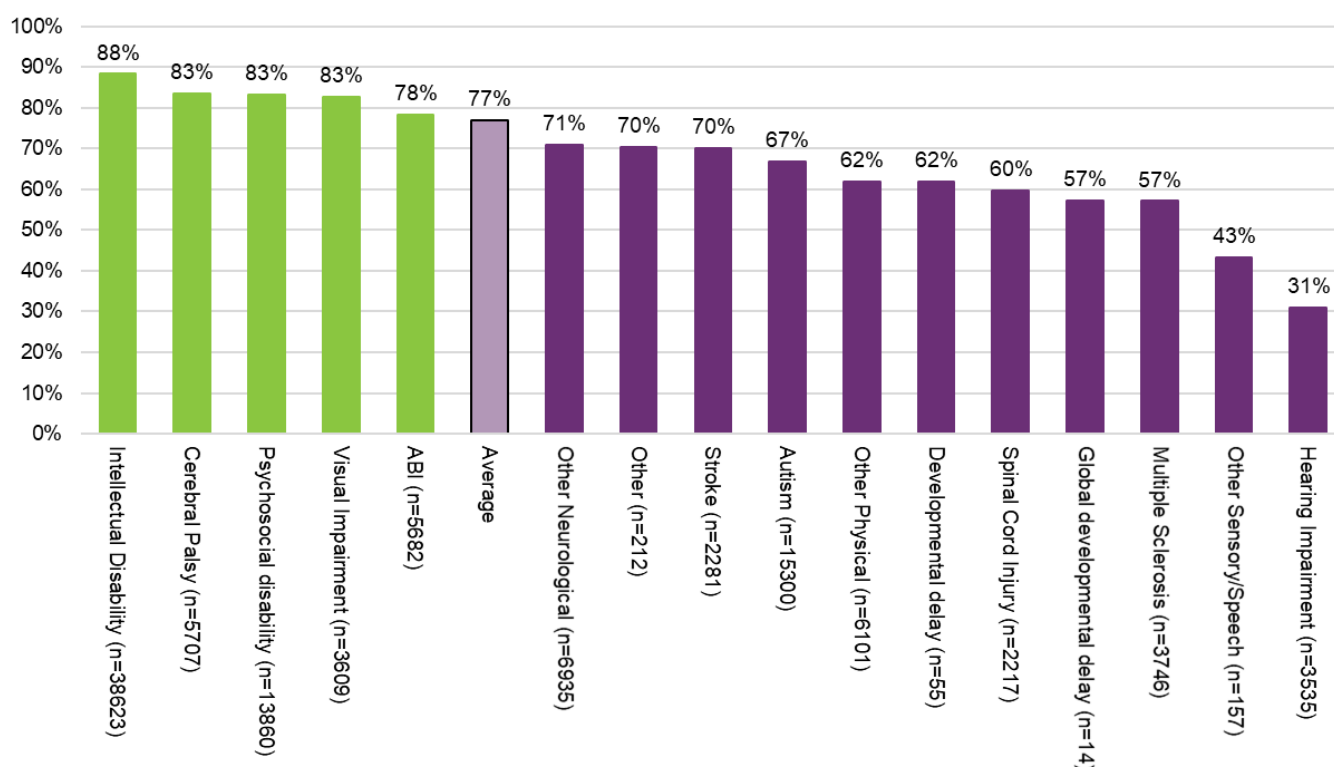
Figure 13.8 Percentage of NDIS participants receiving the DSP by age, as at July 2018



The percentage of participants aged 16 to 24 receiving the DSP is 64%, which is low relative to older age groups since many of these participants will still be studying and not in the workforce. The highest percentage is for the 25 to 34 age group, at 88%, after which the percentage declines gradually to 79% for those aged 60 to 64, then sharply to 57% for the 65 to 69 age group, reflecting the cut-off of the DSP at retirement age.

Figure 13.9 shows DSP utilisation of NDIS participants by disability.

Figure 13.9 Percentage of NDIS participants receiving the DSP by disability, as at July 2018



Participants with an intellectual disability (including Down syndrome) are the most likely to receive the DSP (88%), followed by those with cerebral palsy, a psychosocial disability, or visual impairment (all at 83%). The high percentage for those with a visual impairment is influenced by the automatic DSP qualification rules for those who are blind. Participants with hearing impairment are the least likely to receive the DSP (31%), reflecting their high employment levels relative to participants with other disabilities. DSP utilisation is also low for participants with other sensory/speech disabilities (43%) or multiple sclerosis (57%).

Reversing the focus, overall 7% of DSP recipients at July 2018 also had an approved NDIS plan. Figure 13.10 shows the trend by age⁶⁷.

⁶⁷ The Centrelink primary disability variable is not yet available to the NDIA. Results by this variable will be analysed once it is received.

Figure 13.10 Percentage of DSP recipients with an approved NDIS plan, as at July 2018

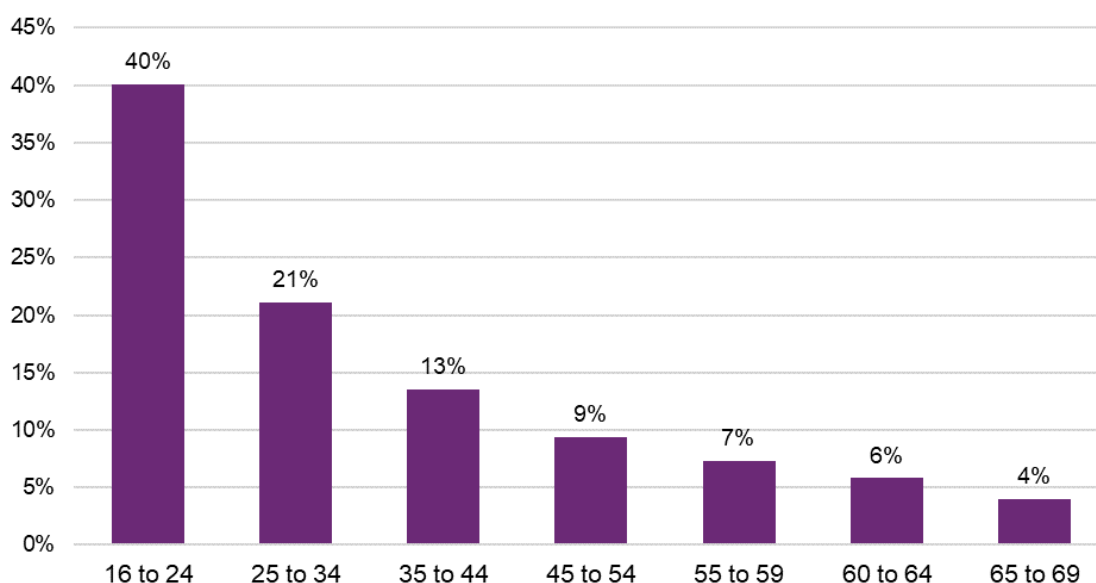


Figure 13.10 exhibits a clear decreasing trend with age. As at July 2018, 40% of all DSP recipients aged 16 to 24 are found by the data linkage to have an approved NDIS plan at that date. This decreases to 21% for DSP recipients aged 25 to 34, with more gradual decreases to 6% for those aged 60 to 64, and 4% for those aged 65 to 69. It should be noted that these results will change as more people enter the NDIS during transition to full scheme. However, they may suggest that older DSP recipients tend to have milder levels of disability, and hence are less likely to be eligible for individual NDIS funding.

As discussed, the results in this section represent a preliminary snapshot only. As well as deeper investigation of the DSP data, the analysis will be extended to include other Centrelink benefits, such as Carer Payment and Carer Allowance. Linkages will also be pursued with other data sources, such as health and ATO data.

13.6 Employment goals in participant plans

During planning conversations, participants discuss their life goals and are encouraged to choose at least two goals that are most important to them. These selected goals are recorded in their plan, and categorised according to the eight domains of the adult outcomes framework.

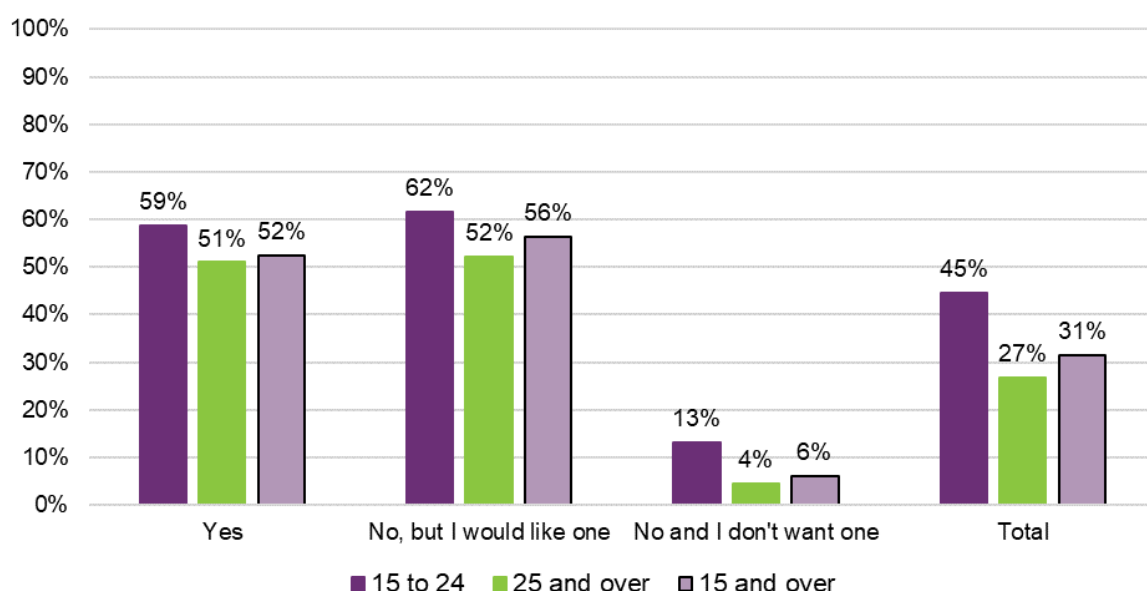
This section investigates the frequency of work goals in the plans of participants aged 15 and over as at 30 June 2018, overall and in relation to SF responses.

Overall, the percentage of active plans at 30 June 2018 with a work-related goal was:

- 44% for participants aged 15 to 24;
- 26% for participants aged 25 or over; and
- 31% for participants aged 15 or over.

The above percentages include all participants, regardless of employment status. Figure 13.11 shows how percentages vary by the three possible responses to the SF work domain question “Are you currently working in a paid job?”.

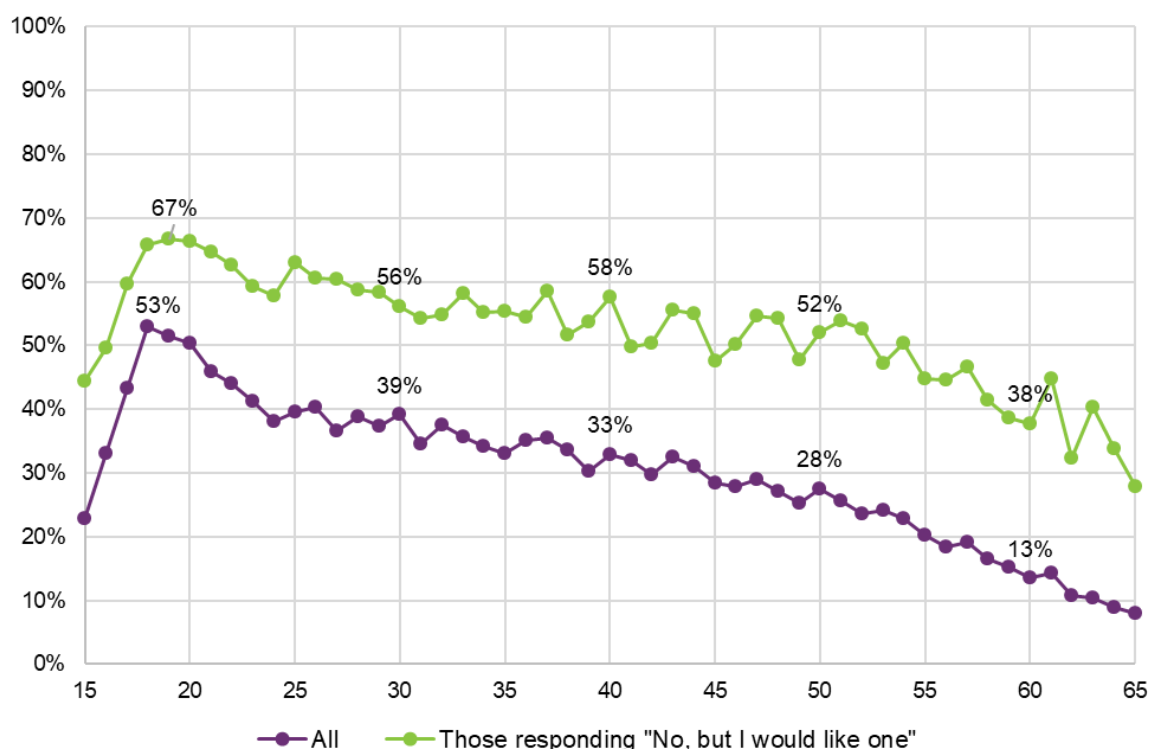
Figure 13.11 Percentage of plans with a work goal by response to SF question “Are you currently working in a paid job?”



From Figure 13.11, the percentages with a work goal are slightly higher for those who say they don't have a job but would like one (62% and 52% for younger and older adults, respectively), compared to those who say they have a job (59% and 51%). For those who say they don't have a job and don't want one, the percentages are considerably lower, but not zero. For example, 13% of participants aged 15 to 24 who say they don't have a job and don't want one still have a work goal in their plan. The lower percentages with work goals for older adults compared to younger adults are also of note.

Figure 13.12 shows the percentage of active plans at 30 June 2018 with a work-related goal, by age. Results are shown separately for all participants, and for the subset of participants who say they don't have a job but would like one.

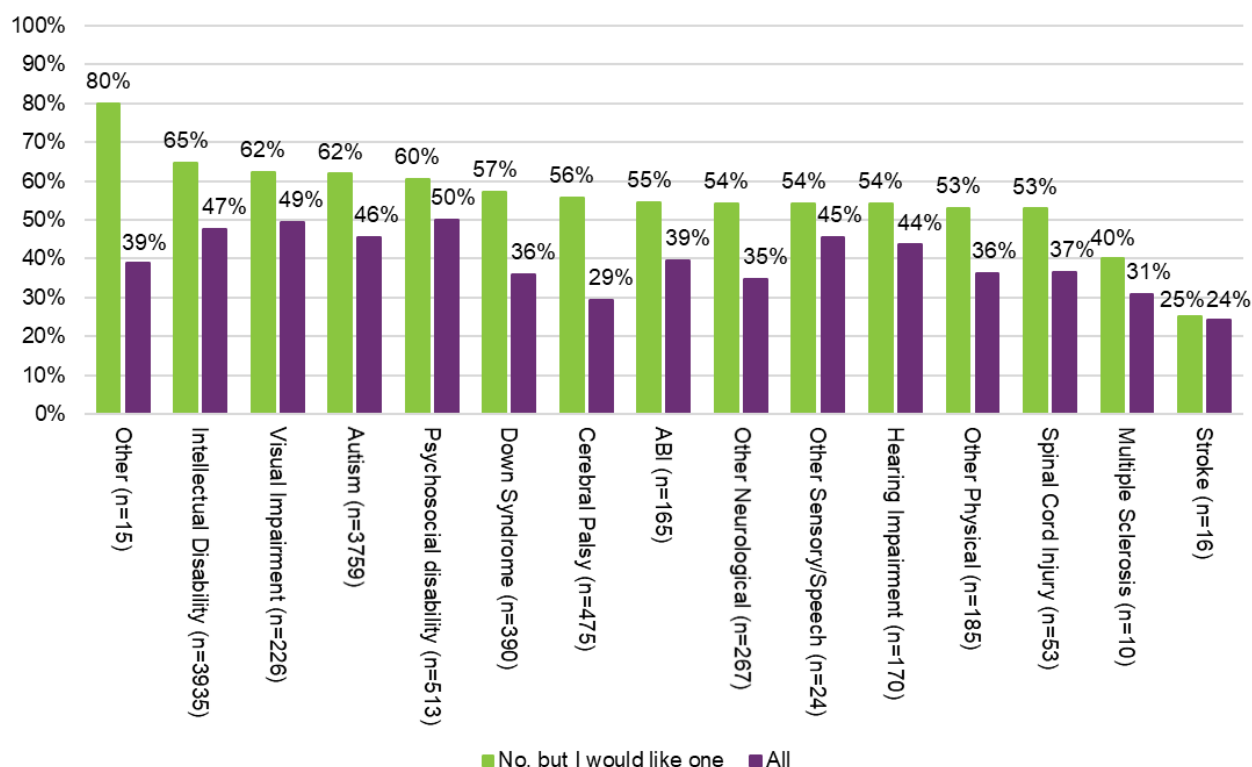
Figure 13.12 Percentage with a work goal by age, overall and for those who say they don't have a job but would like one



Unsurprisingly, the peak in both series occurs at age 18-19, being 53% at age 18 for all participants and 67% at age 19 for those who want to get a job. Also as expected, the overall percentage declines rapidly at the oldest ages, as participants approach retirement, being only 13% for participants aged 60. However this decline is observed even for participants who still say they would like a paid job – for these participants, the percentage with a work goal at age 60 has declined to 38%. Also slightly unexpected is the immediate and rapid decline at young ages from the peaks at age 18-19. This decline is observed for both the overall group, which might be partly due to participants gaining employment, and the group who say they would like to get a job. The observed trend may be influenced by the School Leaver Employment Support (SLES) program available to the youngest participants.

Figure 13.13 shows percentages with a work goal by disability, for participants aged 15 to 24. Results are shown separately for the subset of participants who say they don't have a job but would like one (ordered by decreasing percentage for this group) and overall. The numbers shown on the graph are for the subset of participants who say they don't have a job (the overall numbers will be higher).

Figure 13.13 Percentage of plans with a work goal by disability⁶⁸, participants aged 15 to 24

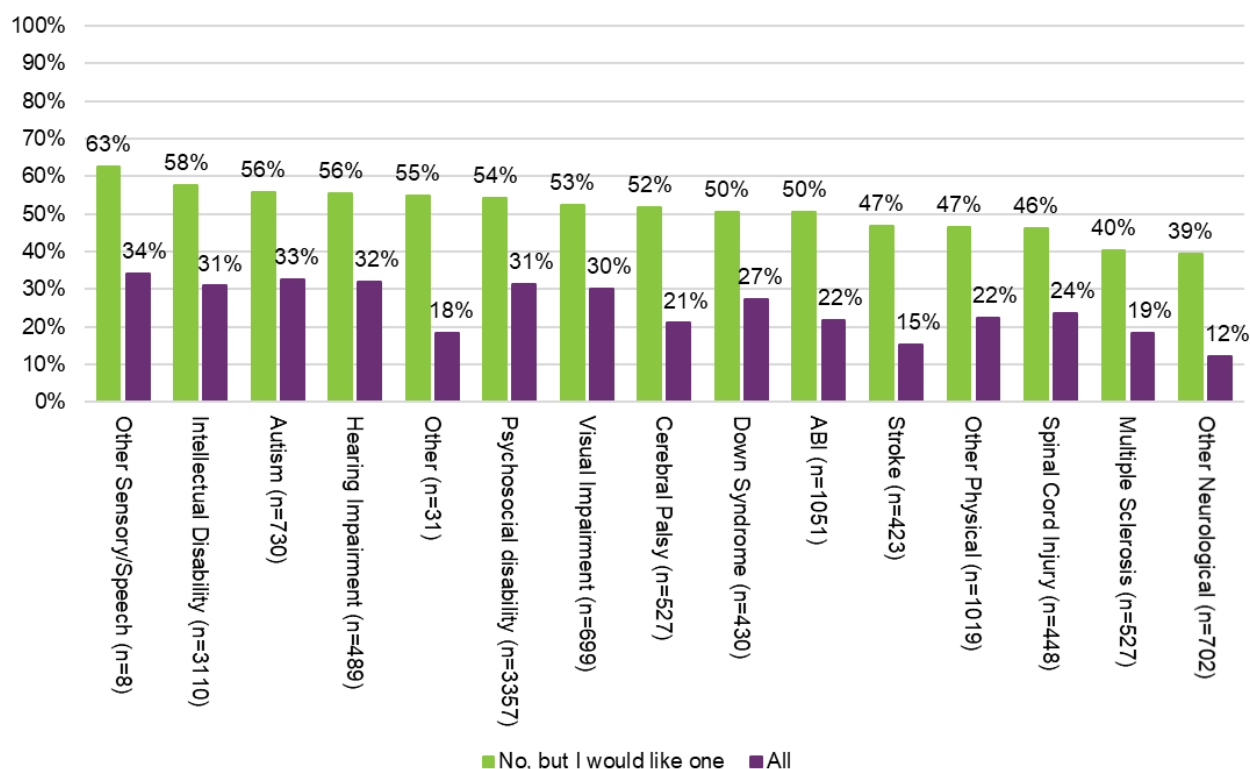


Looking at percentages for those who would like to get a job, apart from the small groups for stroke, multiple sclerosis and “other”, percentages with a work goal range from 53% for those with a spinal cord injury to 65% for those with an intellectual disability. After intellectual disability, the next highest percentages are for visual impairment and autism (62%, the same as the overall average), followed by psychosocial disability (60%). As well as spinal cord injury, lower percentages are also observed for other physical disabilities (53%) and hearing impairment (54%).

Figure 13.14 shows the corresponding graph for participants aged 25 and over.

⁶⁸ Since the graphs by disability do not control for participant age, they are potentially subject to age-related confounding.

Figure 13.14 Percentage of plans with a work goal by disability⁶⁸, participants aged 25 and over



Looking at percentages for those who would like to get a job, apart from the very small “Other Sensory/Speech” group, the percentage with a work goal is highest for those with an intellectual disability (58%), followed by autism and hearing impairment (both 56%). On the other hand, those with another neurological disability (39%) or multiple sclerosis (40%) are the least likely to have a work goal in their plan.

13.7 Employment experience of NDIS participants: trend

The last two years have been characterised by a strengthening Australian labour market. The employed to population ratio for 15 to 64 year olds has increased from 72.5% in April 2016 to 73.6% in March 2018. Similarly for young persons aged 15 to 24, the employed to population ratio increased from 58.4% in July 2016 to 59.2% in March 2018⁶⁹. This section of the report examines whether similar trends are being observed in the NDIS working-age population.

⁶⁹ Australian Bureau of Statistics. 2018. 6202.0 Labour force, Australia, Mar 2018

In the Work domain of the SF questionnaire, participants aged 15 and over are asked the question 'Are you currently working in a paid job?'⁷⁰ The overall change in the percentage of participants who report that they are in paid work between baseline and review is⁷¹:

- A slight improvement of **+3%** for 15-24 year olds (from 15% to 18%)
- A small decrease of **-1%** for participants aged 25 and over (from 25% to 24%)
- Overall, remained broadly the same for working age participants at **22%**

The reasons for the difference in employment outcomes by age group may include:

- Participants aged 15 to 24 who are school leavers may have access to the School Leaver Employment Support (SLES) program, which is an early intervention approach to support their transition from school to employment.
- Participants aged 25 and over who have been in the disability support system for some time may have less success finding paid work, as they have often had poor experiences with education and faced a culture that was not supportive of disability employment in the past. Some participants may also have fewer skills and lower levels of confidence due to long breaks from paid employment⁷².
- There are more participants aged 25 and over who have reported in the SF questionnaire at baseline that they do not want a paid job (54%) compared to participants aged 15 to 24 (35%).

For participants who are already in a paid job at their baseline plan, the 25 and older cohort are more likely to remain in paid work at review compared to participants aged 15 to 24. This is likely due to a higher proportion of older participants being employed in an Australian Disability Enterprise. The detailed transition rates between employment status at baseline and review are given in Table 13.1 and Table 13.2 below.

Table 13.1 Employment status transition rates – participants aged 15 to 24*

Baseline Employment Status	Review Employment Status		
	In paid work (n=1034)	Not in paid work, but would like to be (n=2763)	Not in paid work, and don't want to be (n=1681)
In paid work (n=830)	80% (n=670)	17% (n=139)	3% (n=21)
Not in paid work, but would like to be (n=2762)	12% (n=320)	83% (n=2290)	5% (n=152)
Not in paid work, and don't want to be (n=1886)	2% (n=44)	18% (n=334)	80% (n=1508)

* Excludes participants where employment status is unknown at baseline or review

⁷⁰ If this question is not answered, the answer to 'What type of employment activities do you currently attend/participate in?' from the participant information section of the SF questionnaire is used instead

⁷¹ Slight differences in these results compared to the COAG Disability Reform Council June Quarterly Report reflect different dates of data extract.

⁷² Productivity Commission Inquiry Report. 2011. Disability Care and Support p. 960

Table 13.2 Employment status transition rates – participants aged 25 and over*

Baseline Employment Status	Review Employment Status		
	In paid work (n=3393)	Not in paid work, but would like to be (n=2808)	Not in paid work, and don't want to be (n=7536)
In paid work (n=3473)	90% (n=3145)	5% (n=177)	4% (n=151)
Not in paid work, but would like to be (n=2931)	7% (n=193)	78% (n=2295)	15% (n=443)
Not in paid work, and don't want to be (n=7333)	1% (n=55)	5% (n=336)	95% (n=6942)

* Excludes participants where employment status is unknown at baseline or review

13.8 Key drivers of employment outcomes

The key drivers of employment success for NDIS participants have been identified in this report based on multiple logistic regression analysis, where the binary response (dependent) variable is one if the participant has a paid job at review and zero otherwise. A stepwise regression approach is used to determine the statistically significant predictors of employment success from a number of different variables expected to influence the ability of a participant to find or maintain a job. The results of this analysis are given below for two different cohorts of working age participants:⁷³

- Participants aged 15 to 24 looking for work
- Participants aged 25 and over looking for work.

13.8.1 Participants looking for paid work

This cohort is comprised of participants who, at baseline, answered that they *did not have a paid job but would like one*. A successful employment outcome occurs at the review stage if the participant answers that they *are working in a paid job*. Participants who answer that they *do not have a paid job and do not want one* are excluded from the analysis.

Overall results

Overall the employment success rates⁷⁴ for this group are

- **11.6%** for participants aged 15 to 24 who are looking for paid work
- **6.6%** for participants aged 25 and over who are looking for paid work
- **9.0%** for all working age participants looking for paid work

Figure 13.15 breaks down the employment success rates by participants who have reported in the SF questionnaire that they found work in open employment, and those who found

⁷³ Factors associated with maintaining employment have also been investigated for the two cohorts: participants working in mainstream employment at baseline, and participants working in an ADE at baseline (results not presented in this report).

⁷⁴ Specifically, Employment success rate = Number of participants not in paid work at baseline plan, but would like to be, who have found paid employment at review plan / Number of participants not in paid work at baseline plan, but would like to be.

work in an Australian Disability Enterprise (ADE)⁷⁵. An ADE is a generally not-for-profit organisation that provides supported employment opportunities to people with moderate to severe disabilities.

Figure 13.15 Employment success rates for participants looking for work by type of employment

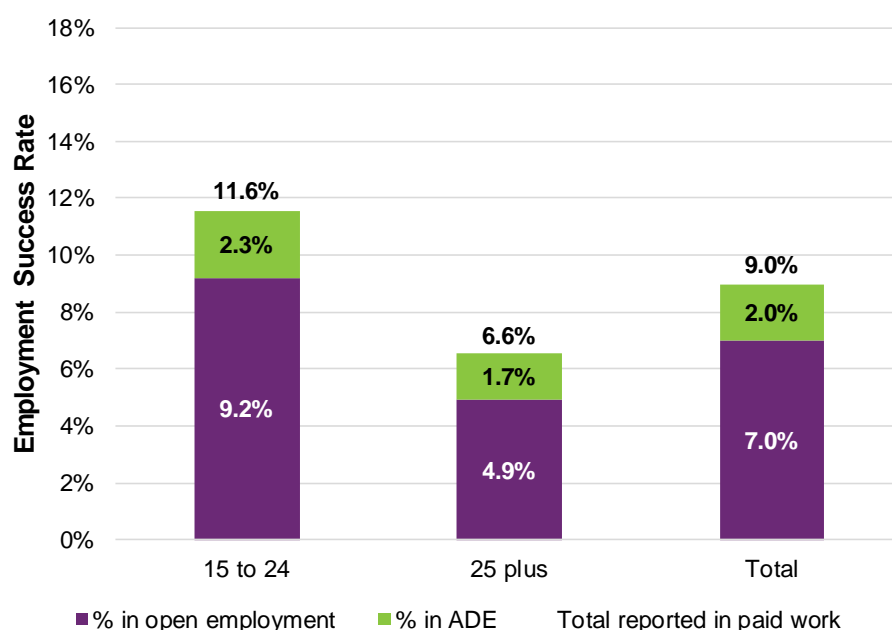

























Table 13.3 outlines the key drivers of employment success for participants looking for paid work by age group. The key drivers are presented in three categories: 1) baseline participant characteristics, 2) baseline NDIS plan characteristics, and 3) change in key indicators. Baseline participant characteristics are those measures related to the participant which are generally outside of the control of the NDIS and its providers. Baseline NDIS plan characteristics relate to the structure of a participant's baseline plan, including funding and goals, and may be in the ability of the NDIS to influence but not providers. The change in key indicator variables measure the change in the participant's response to key questions in the SF questionnaire between baseline and review, and may reflect the actions of the NDIS and service providers in supporting participants to achieve employment outcomes over the plan period. The direction of the relationship between each key driver and employment success, whether positive or negative, is also shown.

⁷⁵ For those who report that they are in paid work, they are then asked in the SF questionnaire 'What type of employment is it?' The options for response are: open employment at full award wage, open employment at less than minimum wage, Australian Disability Enterprise, Australian Apprenticeship, self-employed or other. Participants are assumed to be in open employment if they respond with any option other than Australian Disability Enterprise.

Table 13.3 Key drivers of employment success for participants looking for paid work

Variable type	Participants 15 to 24		Participants 25 and over	
	Variable	Relationship	Variable	Relationship
Baseline participant characteristics	Number of daily living activities where the participant requires support (at baseline)	 with increasing no. activities	Number of daily living activities where the participant requires support (at baseline)	 with increasing no. activities
	Highest education level	 with higher qualifications	Level of function	 with increasing score
	Streaming type is intensive or super intensive		Has university qualification	
	High unemployment rate in participant's LGA (8% or higher)		Left study during plan period	
	Lives in QLD		Cultural and linguistically diverse background (CALD)	
			Has intellectual disability	
			Entry age is between 55 and 59	
			Lives with partner and children	
			Lives in VIC	
Baseline NDIS plan characteristics			Participant has work goal in their plan	
			Participant has NDIS employment funding in their plan	
Change in key indicators at review	No. daily living activities where the participant requires support improves by 2 or more		Participant's self-assessment of their health has improved	
	No. daily living activities where the participant requires support deteriorates by 2 or more		Started or left an unpaid job	
	Started, left or continued to be involved in a general community group		Participant doesn't know people in the community at baseline and review	
	No longer in an unpaid job			

Variable type	Participants 15 to 24		Participants 25 and over	
	Variable	Relationship	Variable	Relationship
	In unpaid job at start and end of plan period, or started volunteering ⁷⁶	↓		
	Participant's ability to choose what they do each day improves	↑		
	Participant has got to know people in the community	↑		

Participants aged 15 to 24 looking for paid work

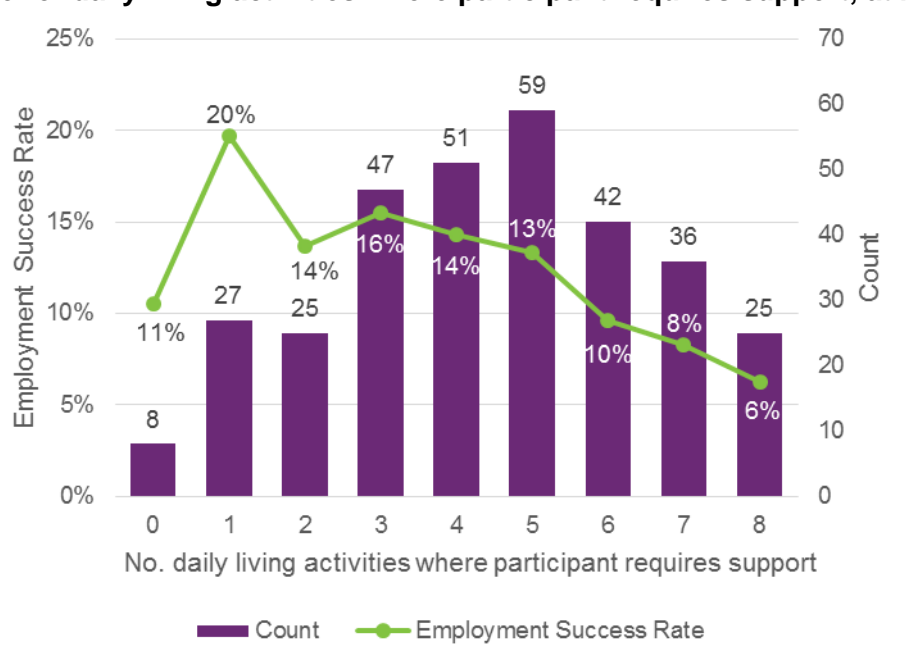
This section highlights some of the key drivers of employment outcomes for participants aged 15 to 24 who are looking for paid work as identified in the multiple logistic regression analysis. All supporting figures show the impact of the key drivers on employment success on a one-way basis (i.e. not allowing for the other explanatory factors).

Number of daily living activities where the participant requires support

Figure 13.16 shows the employment success rate by the number of daily living activities where a participant requires support at baseline, as reported in the 'Daily living' domain of the SF questionnaire. Activities of daily living include domestic tasks, personal care, travel and transport, communication, getting out of the house, dealing with finances/money, reading and writing, and using technology.

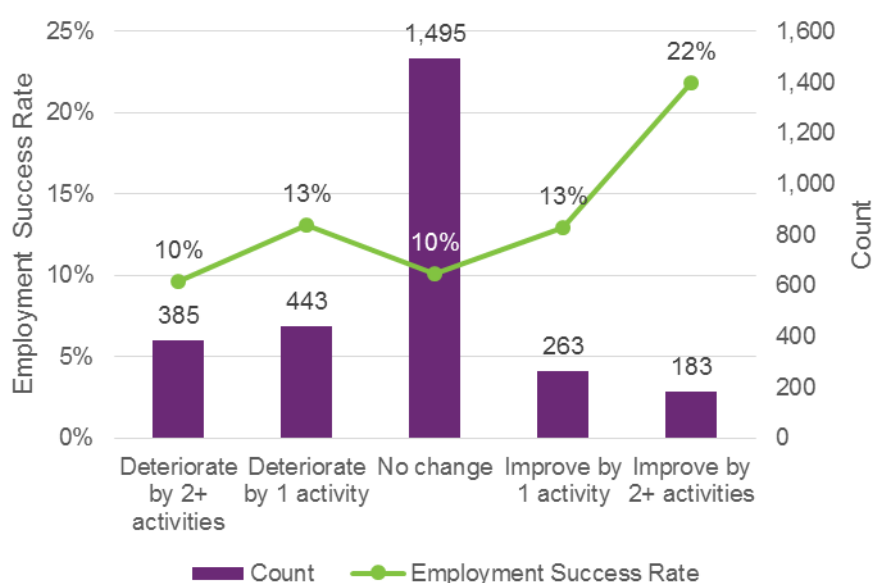
⁷⁶ These participants are expected to be doing mainly work experience or volunteering. The lower employment success rates may reflect that they are still in the capacity building stages of a SLES program to prepare for work in the future, or have accepted unpaid or volunteer work as a viable alternative to paid work.

Figure 13.16 Participants aged 15 to 24 looking for work – employment success rates by number of daily living activities where participant requires support, at baseline



The employment success rate broadly decreases as the number of areas where support is required increases. This may reflect two underlying factors captured by this measure: 1) participants with lower levels of functional capacity find it more difficult to gain paid employment, and 2) participants who experience less independence also find it more difficult to find work. The likelihood of participants aged 15 to 24 finding paid work at review is also influenced by the change in the number of supports required when the participant reaches their review plan, as illustrated in Figure 13.17 below.

Figure 13.17 Participants aged 15 to 24 looking for work – employment success rates by change in number of daily living activities where participant requires support at review

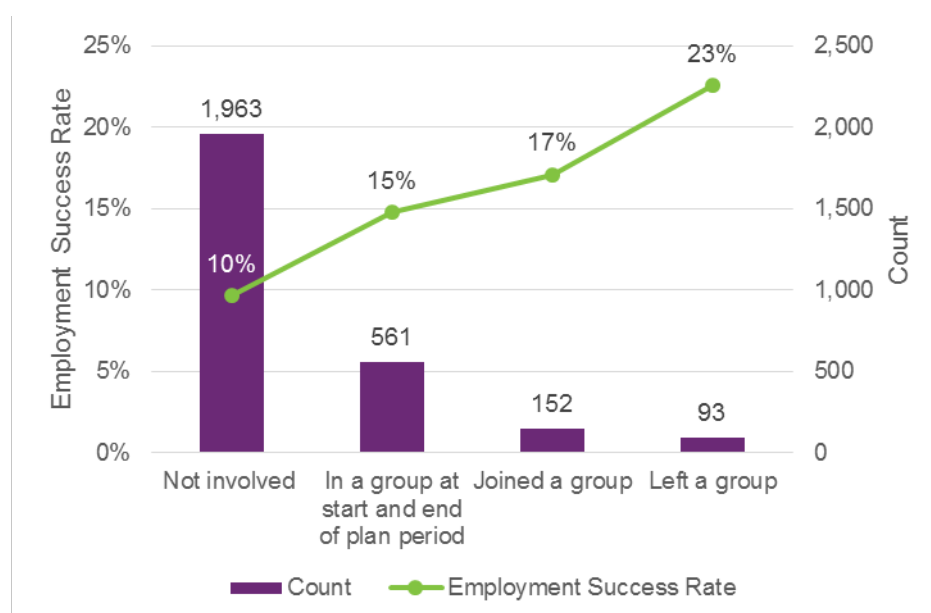


The employment success rate is significantly higher when the participant is able to increase their level of capacity and independence through their involvement with the NDIS. These results illustrate the important role the NDIS plays in providing reasonable and necessary supports to young participants that will assist them to build capacity, develop independent living skills and maximize their opportunities for independence and employment. For school leavers in particular, the School Leaver Employment Support (SLES) program was developed according to these principles with supports that aim to build capacity, deliver vocational skills and contribute to the participant achieving an employment outcome.

Involvement in a general community group

Figure 13.18 below shows the employment success rate by the participant's involvement in a general community group between baseline and review. A general community group does not include community groups that are specifically for people with disabilities.

Figure 13.18 Participants aged 15 to 24 looking for work – employment success rates by participant involvement in a general community group

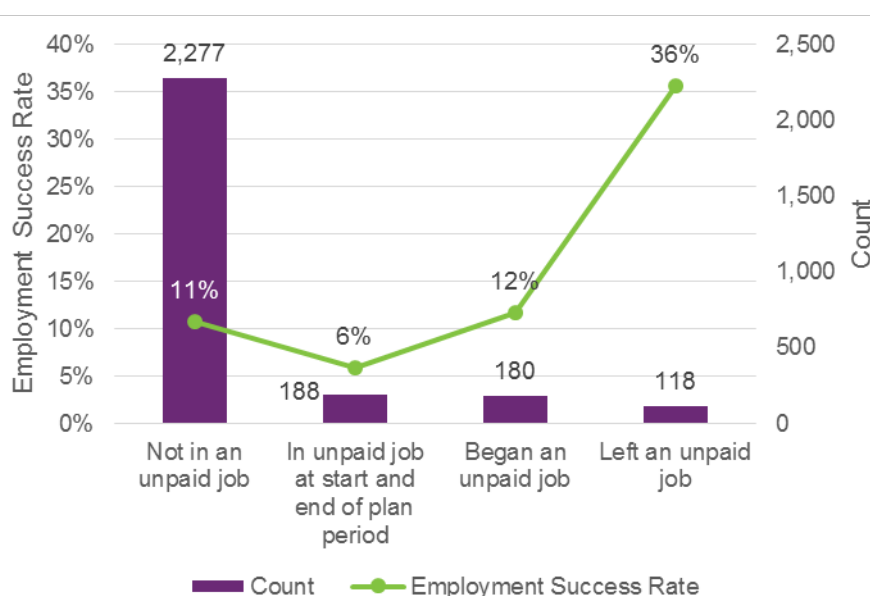


The opportunity to participate in the general community and interact with peers without disabilities is an important tool to build core skills in engagement and communication for young people prior to a vocational pathway. As such, participants who are involved with a general community group at any point during their plan period have significantly better employment outcomes than those who are not involved in the general community. The high employment success rate for participants who leave a general community group during the plan period may reflect that after finding paid work, participants have less time available for social participation.

Involvement in unpaid work

Figure 13.19 shows the employment success rate by the change in a participant's involvement in unpaid work between baseline and review. This may also reflect participant's involvement in volunteering, as 58% of participants who reported that they have an unpaid job in the SF questionnaire also said they worked as a volunteer.

Figure 13.19 Participants aged 15 to 24 looking for work – employment success rates by participant involvement in unpaid work



Participants who leave an unpaid job between baseline and review will generally experience greater employment success as they are likely to have replaced their positions with paid work. This finding reflects the important role of unpaid work experience in helping younger participants to find paid employment, either by placement with the work experience employer or due to increased levels of confidence in the workplace.

However, participants who remain in an unpaid job during the whole plan period have significantly lower rates of paid employment at review. This may reflect that some participants view unpaid work as an alternative option to finding paid work, and as such may stop actively searching for paid employment.

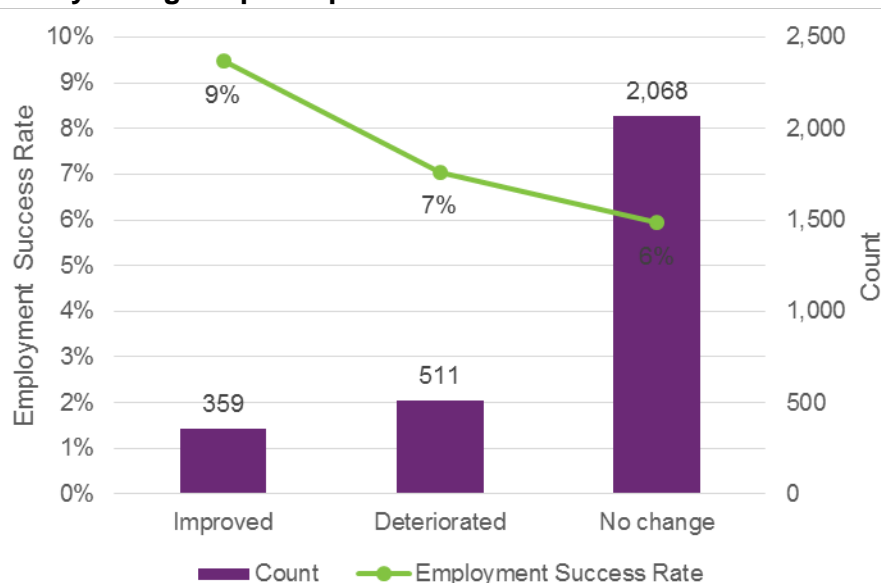
Participants aged 25 and over

This section highlights some of the key drivers of employment outcomes for participants aged 25 and over who are looking for paid work as identified in the multiple logistic regression analysis. All supporting figures show the impact of the key drivers on employment success on a one-way basis.

Change in participant's self-assessed health

In the SF questionnaire, participants are asked to rate their overall health on a 5-point scale between Excellent and Poor. Figure 13.20 shows the employment success rates by the change in the participant's response between baseline and review.

Figure 13.20 Participants aged 25 and over looking for work – employment success rates by change in participant’s self-assessment of their health at review

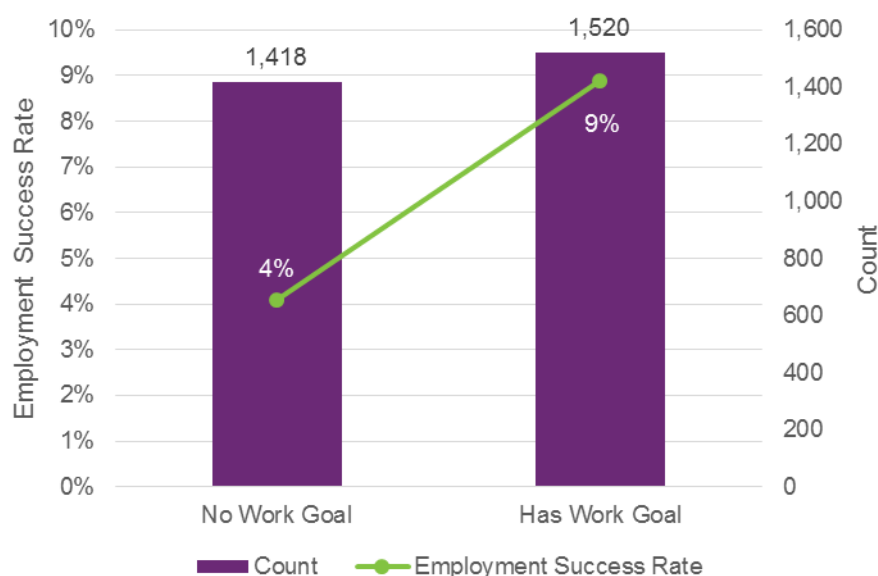


An improvement in a participant’s health status over the plan period is found to have a positive impact on employment success. A change in health status may be related to the participant’s disability or an unrelated health issue, and can reflect both mental and physical health. The median health status at baseline for this group is only Fair (second lowest health rating), and as a participant’s health improves they will have more energy and capacity to look for paid work.

Participant has a work goal in their plan

Employment success rates are shown in Figure 13.21 below by whether the participant has recorded a work goal in any of the approved plans made prior to their review plan i.e. goals recorded by the participant at baseline or following an unscheduled review.

Figure 13.21 Participants aged 25 and over looking for work – employment success rates by whether participant has a work goal in their plan



Participants aged 25 and over who have a work goal recorded in their plans have a higher likelihood of finding paid employment at review than those who do not. Two possible drivers of this relationship are:

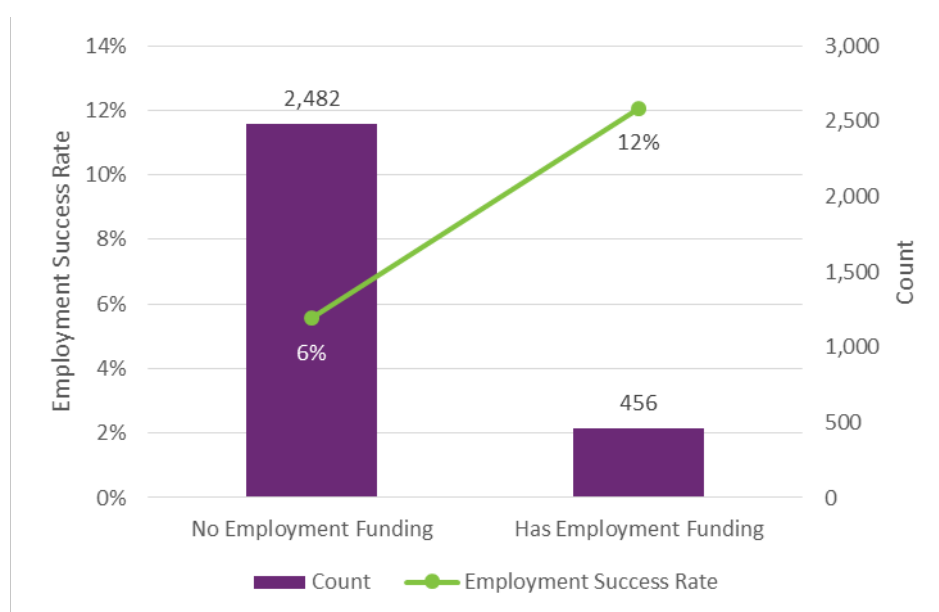
1. A participant who records a work goal has a vision for success and something to measure their progress against. By keeping their goals top of mind, they may have a higher likelihood of finding paid work.
2. Some of the participants who have indicated that they would like to have paid work in the SF questionnaire may not actually have a high level of motivation to look for work, and thus do not have it recorded as a goal.

Younger participants have access to targeted employment support programs such as SLES and will generally be expected to look for paid work as they transition out of school. These same expectations and supports may not be in place for participants aged 25 and over, particularly if the participant has been out of work for some time. As a result, the importance of recording a specific work goal gains significance for this cohort. Improvements to the planning process to better capture employment goals for participants could have a positive impact on employment outcomes.

Participant has NDIS employment funding in their plan

Figure 13.22 shows the employment success rate by whether a participant has NDIS employment funding in any of their approved plans prior to review, excluding funding for employment in an ADE⁷⁷.

Figure 13.22 Participants aged 25 and over looking for work – employment success rates by whether participant has NDIS employment funding in their plan



⁷⁷ Participants who are not in paid work at baseline may receive ADE funding following an unscheduled plan review if they find employment in an ADE during the plan period

Participants aged 25 and over who receive NDIS employment funding have greater rates of employment success, as they can use these funds to support their search for paid work under the following categories:

- Employment related assessment and counselling
- Individual employment support
- Employment preparation and support in a group.

For participants who do not receive NDIS employment funding, it is currently unknown whether or not they are receiving mainstream or community employment supports. The NDIA is currently working with the Department of Social Services (DSS) to identify NDIS participants who are receiving Disability Employment Services (DES) supports, after which further analysis will be conducted to understand whether similar positive outcomes are observed for participants receiving mainstream employment supports.

Comparison of participants looking for paid work by age group

A comparison of the drivers of employment success outlined in the sections above may suggest that the NDIS and its providers should support participants who are looking for paid work based on their age:

- For participants aged 15 to 24, supports should be focused on increasing independence and building capacity to seek employment.
- For participants aged 25 and older, capacity building and independence appears to be less important. Rather, the NDIS can support participants to find employment by encouraging them to include work goals in their plans, and providing employment funding to those who do not have access to mainstream or community supports. Providers who support participants to improve their health may also see better employment outcomes for the participants they assist.
- Involvement in unpaid work and the community are associated with better employment outcomes for both age groups

However, these results should be interpreted with care as it may simply be the absence of a defined employment support program like SLES for participants aged 25 and older that is driving the difference in outcomes between the two groups. Given the significantly lower employment success rate for participants aged 25 and over who are looking for paid work, it may be beneficial to consider introducing an employment support program similar to SLES to this group in the future.

13.9 Provider analysis by employment outcomes

The performance of NDIS providers is examined in this section based on the employment outcomes they achieve for the participants they assist. By assessing provider performance, the NDIA aims to improve the employment outcomes for participants over time and meet corporate plan targets. This will be achieved by making more information available to participants to choose the best providers for employment services, and providing greater insight into the drivers of employment outcomes.

The providers included in the performance analysis are those that delivered services to participants included in the analysis in Section 13.8, that is, participants in the short form trend analysis who are looking for paid work or are working in paid employment. The analysis is also restricted to participants who have supports that are agency-managed. To attribute participant outcomes to individual providers, an exposure weighting method is used based on the relative size of the payments made to each provider over a participant's plan period. Providers with a participant exposure less than 20 have been excluded from the analysis to allow for a meaningful level of exposure per provider.

13.9.1 Measuring provider performance

In order to assess provider performance on an equitable basis, the actual employment outcomes achieved by a provider are compared to a reasonably expected outcome based on the characteristics of the participants they are assisting. For example, a participant with a university qualification is expected to have a higher likelihood of finding and maintaining paid work than a participant with a high school education. The expected outcomes are determined using a multiple regression that takes account of the key employment drivers listed in Section 13.8, *but only those that are assumed to be outside the providers' ability to influence during the plan period* i.e. the baseline participant and plan characteristics, including answers to key indicator questions at baseline but not review.

Separate regressions are run for each of the four participant cohorts⁷⁸ and then summed together to determine the expected number of participants that will be in paid employment at review for each provider. Providers are ranked in descending order according to the ratio of their actual employment successes to the expected number of successes.

A limitation to this approach is that all employment outcomes are given the same weighting when ranking provider performance. However, it may be argued that a provider finding a job for a young participant is a better outcome than keeping a participant in ADE employment. This could be addressed in the future by using an outcome weighting approach that captures the value of each of the employment outcomes to both participants and the wider economy.

⁷⁸ Participants 15 to 24 looking for work, participants 25 and over looking for work, participants in open employment at baseline, and participants working in an ADE at baseline.

13.9.2 Top five providers for employment outcomes

Based on the measure of provider performance outlined in Section 13.9.1, the top five providers for employment outcomes were identified. For the purposes of this report, we will refer to these providers as Provider A (top ranked), Provider B, Provider C, Provider D, and Provider E (fifth ranked).

Table 13.4 and Table 13.5 summarise the employment performance and provision of services by the top five providers over the period for analysis.

Table 13.4 Top five providers – employment performance summary

Provider	Participants looking for paid work at baseline		Participants in paid work at baseline		Performance (actual over expected for all cohorts)
	Participant Exposure	Expected & Actual participants in paid work at review	Participant Exposure	Expected & Actual participants in paid work at review	
A	47	6 Expected 18 Actual	7	5 Expected 5 Actual	205%
B	14	1 Expected 3 Actual	8	7 Expected 8 Actual	131%
C	27	4 Expected 5 Actual	2	2 Expected 2 Actual	130%
D	1	0 Expected 1 Actual	23	21 Expected 22 Actual	113%
E	12	1 Expected 2 Actual	23	21 Expected 22 Actual	112%

* All figures are rounded to whole numbers for presentation purposes

Table 13.5 Top five providers – service provision summary

Provider	Services Provided (as % total payments)				
	SLES	ADE	Employment Other*	Social, Community & Civic	Assist with Daily Living Activities
A	99%		0.4%	0.5%	
B				29%	67%
C	22%		22%	54%	2%
D		99%	1%		
E		14%	0.1%	8%	76%

* Includes employment related assessment and counselling, individual employment support, and employment preparation and support in a group.

Provider A receives the top ranking due to its exceptional results in helping young participants aged 15 to 24 to find paid work. Provider A is a dedicated employment service provider that specialises in placing people with a moderate intellectual disability into open employment. They operate a SLES and DES program, with the majority of their participant exposure being young participants receiving SLES supports. The strong results for Provider A highlights the benefits of the SLES program in helping participants to find paid work, as

well as the potential benefits that may arise for participants who engage with specialist employment service providers.

Provider B is the second highest ranking provider, with better than expected outcomes for participants looking for work (all ages) and those working in mainstream employment. Provider B is a specialist service provider for people experiencing a mental illness or who have an intellectual disability. They are also a Personal Helpers and Mentors (PHaMs) employment service provider, which is a mainstream employment service for people with a mental illness funded through DSS⁷⁹. Although they are also registered as an NDIS employment provider, the majority of NDIS funded services provided by Provider B to participants in this analysis is for assistance with daily living activities⁸⁰ (see Table 13.5). On their website, Provider B's focus on supporting a participant's health and wellbeing may be one of the drivers of their successful employment outcomes, particularly for older participants and those in mainstream employment.

Like Provider A, Provider C has a strong result for participants aged 15 to 24 looking for work. Provider C is an employment service provider that helps people with a range of disabilities to find open employment through supports that are designed to increase independence, including DES and SLES programs. For the participants in this analysis, over half of the value of the services that Provider C provided was for social, community and civic participation. This ranking highlights that providers who support participants to be more involved in the community may experience better employment outcomes.

Provider D offers a range of services for people with intellectual disabilities including employment in a supported ADE workplace. Provider D has ADE locations throughout Queensland, Western Sydney and Victoria operating a range of services such as packaging, recycling, and sewing. The high ranking of Provider D reflects that a higher number of participants working in these ADEs were able to maintain paid employment at review than expected. However, if the methodology is extended in the future to capture quality of outcomes, providers who support participants to maintain open employment may rank higher than Provider D.

The final provider in the top five is Provider E, who offer a wide range of services for people with disabilities, including supported ADE employment. The employment success rates for Provider E are higher than expected for participants who are in ADE employment and participants aged 25 and over who are looking for work. Provider E also has the highest percentage of participants aged 25 and over who successfully find paid employment in the open market: 92%, which is higher than would generally be expected given that they are an ADE provider.

⁷⁹ It is not currently possible to identify whether the NDIS participants assisted by Provider B were also receiving mainstream PHaMs employment support from Provider B.

⁸⁰ Approx. 30% of the participants that Provider B supported had employment funding in their plans. Of this 30%, about half of the participants used their funding with a different employment provider, and the other half didn't use their funding at all.

14. Participants aged 15 to 24 and 25 and over: social, community and civic participation

14.1 Key findings

Box 14.1: Key findings for participants aged 15 and over: social, community and civic participation

- Social, community and civic participation has many potential benefits for people with disability, including improved well-being, lower long-term costs of care and support, and increased employment opportunities. There are also benefits to the wider community, as the inclusion of people with disability in the community can enhance Australia's social capital, and promote a more inclusive and diverse society.
- Longitudinal analysis of SF data reveals that the percentage of participants who say they have been actively involved in a community, cultural or religious group in the last 12 months has increased significantly for both 15 to 24 year olds (from 31.6% to 37.3%, a 5.7% improvement) and those aged 25 or over (from 36.5% to 40.7%, a 4.2% improvement).
- Logistic regression modelling has been used to identify key drivers of either attaining (for those not involved at baseline) or maintaining (for those involved at baseline) involvement in a community, cultural or religious group at review.
- Participants who volunteer at baseline are more likely to say they have been actively involved in a community, cultural or religious group in the last 12 months at review.
- Participants who are in a paid job at baseline are also more likely to say they have been actively involved in a community, cultural or religious group in the last 12 months at review.
- Participants with Down syndrome have consistently higher levels of involvement in a community, cultural or religious group than participants with other types of disability. However, this result is associated with a greater proportion of participants with Down syndrome being involved in groups for people with disability rather than mainstream community groups.

14.2 Background and overall results

Social, community and civic (SCC) participation can have many benefits for people with disabilities, including improved well-being, lower long-term costs of care and support, and increased employment opportunities. There are also benefits to the wider community, as the inclusion of people with disability in the community can enhance Australia's social capital, and promote a more inclusive and diverse society⁸¹.

SCC participation is determined by the participant's response to the question "Have you been actively involved in a community, cultural or religious group in the last 12 months?" in the Social, Community and Civic Participation domain of the SF questionnaire. A participant is considered to be involved in a SCC group if they answer "Yes, a general community group" or "Yes, a group for people with a disability". As at 31 March 2018, the overall changes in reported SCC participation rates between baseline and review are:

- A **+6%** improvement for 15-24 year olds (from 31.6% to 37.2%)
- A **+4%** improvement for participants aged 25 and over (from 36.6% to 40.8%)
- An overall **+4%** improvement (from 35.1% to 39.7%) for both age groups combined

The detailed transition rates between SCC participation status at baseline and review are given in Table 14.1 and Table 14.2 below.

Table 14.1 SCC participation status transition rates – participants aged 15 to 24*

Baseline SCC Participation Status	Review SCC Participation Status			
	In a general community group (n=1311)	In a group for people with a disability (n=778)	Not in a group but would like to be (n=1392)	Not in a group and do not want to be (n=2127)
In a general community group (n=1250)	84% (n=1053)	5% (n=61)	6% (n=81)	4% (n=55)
In a group for people with a disability (n=521)	3% (n=15)	86% (n=450)	6% (n=32)	5% (n=24)
Not in a group but would like to be (n=1317)	6% (n=80)	7% (n=95)	79% (n=1041)	8% (n=101)
Not in a group and do not want to be (n=2520)	6% (n=163)	7% (n=172)	9% (n=238)	77% (n=1947)

* Excludes participants where SCC participation status is unknown at baseline or review

⁸¹ Productivity Commission Inquiry Report. 2011. Disability Care and Support pp. 206-207

Table 14.2 SCC participation status transition rates – participants aged 25 and over*

Baseline SCC Participation Status	Review SCC Participation Status			
	In a general community group (n=3614)	In a group for people with a disability (n=2077)	Not in a group but would like to be (n=3288)	Not in a group and do not want to be (n=4992)
In a general community group (n=3447)	87% (n=2984)	4% (n=143)	6% (n=221)	2% (n=99)
In a group for people with a disability (n=1657)	4% (n=63)	89% (n=1473)	5% (n=77)	3% (n=44)
Not in a group but would like to be (n=3084)	8% (n=244)	5% (n=148)	82% (n=2518)	6% (n=174)
Not in a group and do not want to be (n=5783)	6% (n=323)	5% (n=313)	8% (n=472)	81% (n=4675)

* Excludes participants where SCC participation status is unknown at baseline or review

14.3 Key drivers of social, community and civic participation outcomes

The key drivers of SCC participation outcomes have been analysed using a multiple logistic regression analysis approach with a reduced set of predictor variables. This is because, in contrast to employment (for example), SCC participation is not a precisely defined concept. There is a wide range of activities that may be encompassed under SCC participation, and participant responses will vary depending on their own subjective judgement as to what constitutes involvement in the community.

The regression analysis models a binary response (dependent) variable of one if the participant responds at review that they have been actively involved in a community, cultural or religious group in the last 12 months, and zero otherwise⁸². The predictor variables that have been used in the regression analysis are expected to broadly influence the ability of a participant to be involved in the community.

The regression analysis has been performed on two cohorts of participants based on their SCC participation status at baseline:

1. Participants who are not involved in a SCC group at baseline, but would like to be
2. Participants who are actively involved in a SCC group at baseline

Participants who reported that they did not want to be involved in a SCC group at baseline have been excluded from the key driver analysis.

⁸² Both in a general community group or a group for people with disabilities

Figure 14.1 shows the SCC participation rates at review for each participant cohort, with rates broken down into the participants who are in a general community group at review, and those who are in a community group for people with disabilities at review.

Figure 14.1 SCC participation rates at review, by SCC participation at baseline

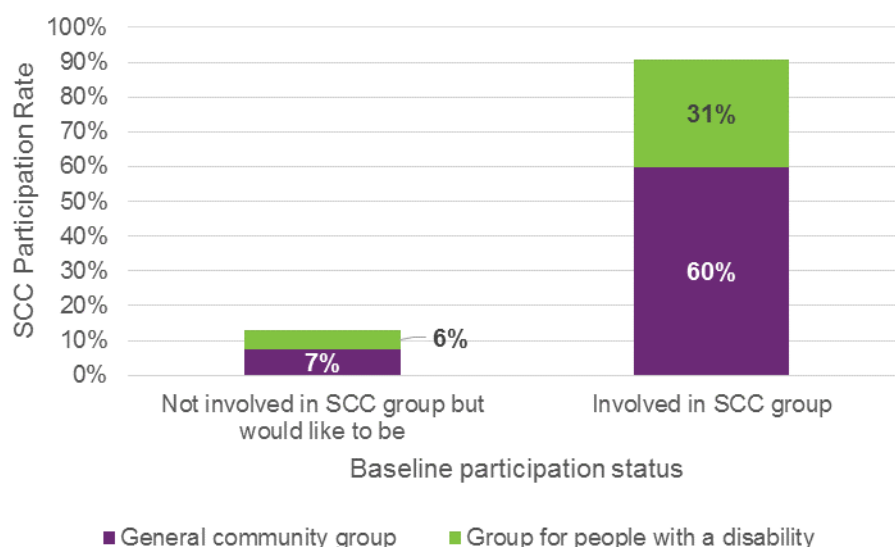


Table 14.3 outlines the variables that were found to have a significant relationship to SCC participation status at review, based on the multiple logistic regression analysis. The direction of the relationship is also given.

Table 14.3 Key drivers of SCC participation status at review, by SCC participation at baseline

Participants not involved in a SCC group at baseline, but would like to be		Participants involved in a SCC group at baseline	
Variable	Relationship	Variable	Relationship
Level of function is high (1 to 5) or low (above 10)	↓	Entry age	↑ with increasing age
Participant has Down syndrome	↑	Participant has Down syndrome or an intellectual disability	↑
Participant has cerebral palsy or other neurological disability*	↓	Cultural and linguistically diverse background (CALD)	↑
Has less than year 12 education	↓	Has less than year 12 education, TAFE certificate or university degree (relative to Year 12 education)	↓
Has university degree	↑	Participant is a volunteer at baseline	↑
Participant is a volunteer at baseline	↑	Participant has friends other than family or paid staff at baseline	↑

Participants not involved in a SCC group at baseline, but would like to be		Participants involved in a SCC group at baseline	
Variable	Relationship	Variable	Relationship
Participant is in education, training or skill development and is in a class for students with disability at baseline	↑	Participant is in a paid job at baseline	↑
Participant is in a paid job at baseline	↑		

* Significant at the 10% level only

Some of the key insights from the regression analysis are:

- Participants who volunteer at baseline are more likely to be involved in a SCC group at review for both cohorts. This may reflect an overlap between volunteering and SCC participation, with potential changes in the interpretation of what constitutes community participation between baseline and review. Alternatively, volunteers may be more committed to their roles than participants in other SCC groups, or volunteering may encourage participants to engage in other community activities. Similar considerations apply to participants who are in a class for students with a disability at baseline.
- Participants who are in a paid job at baseline are found to have greater rates of SCC participation, even though they may have less time available than participants who are not working. This could be a result of participants in paid employment having greater levels of financial and social independence, and more opportunities to join social groups through their workplace.
- Participants with Down syndrome have consistently better SCC participation outcomes than participants with other types of disability. However, this result is associated with a greater proportion of participants with Down syndrome being involved in groups for people with disabilities rather than mainstream community groups, as illustrated in Figure 14.2 and Figure 14.3 below.

Figure 14.2 SCC participation rates at review for participants not involved in a SCC group at baseline but would like to be, by disability type

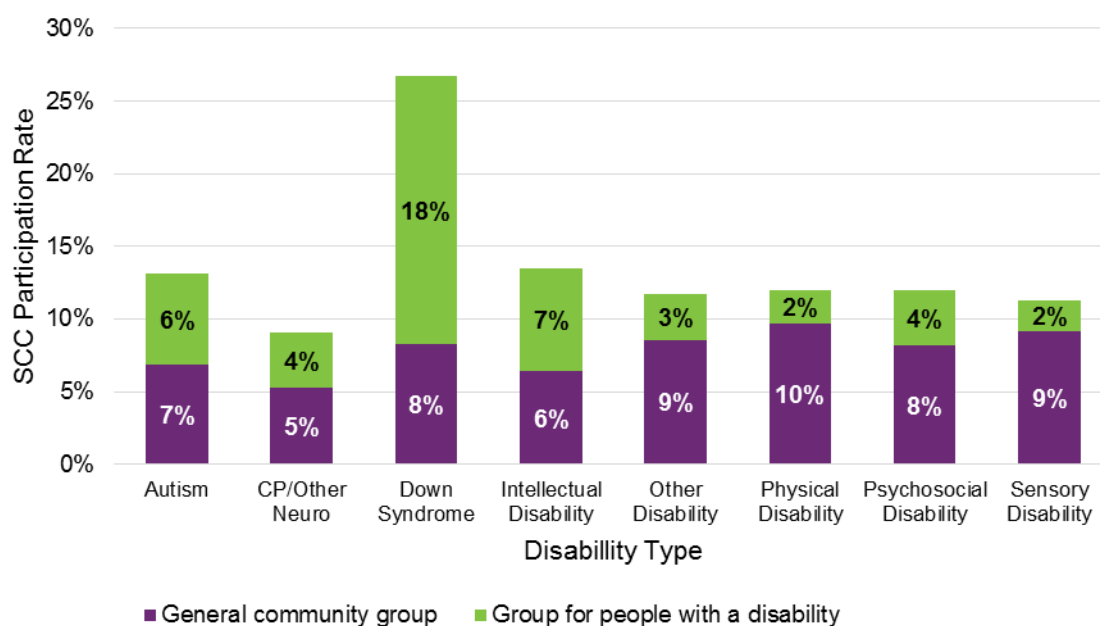
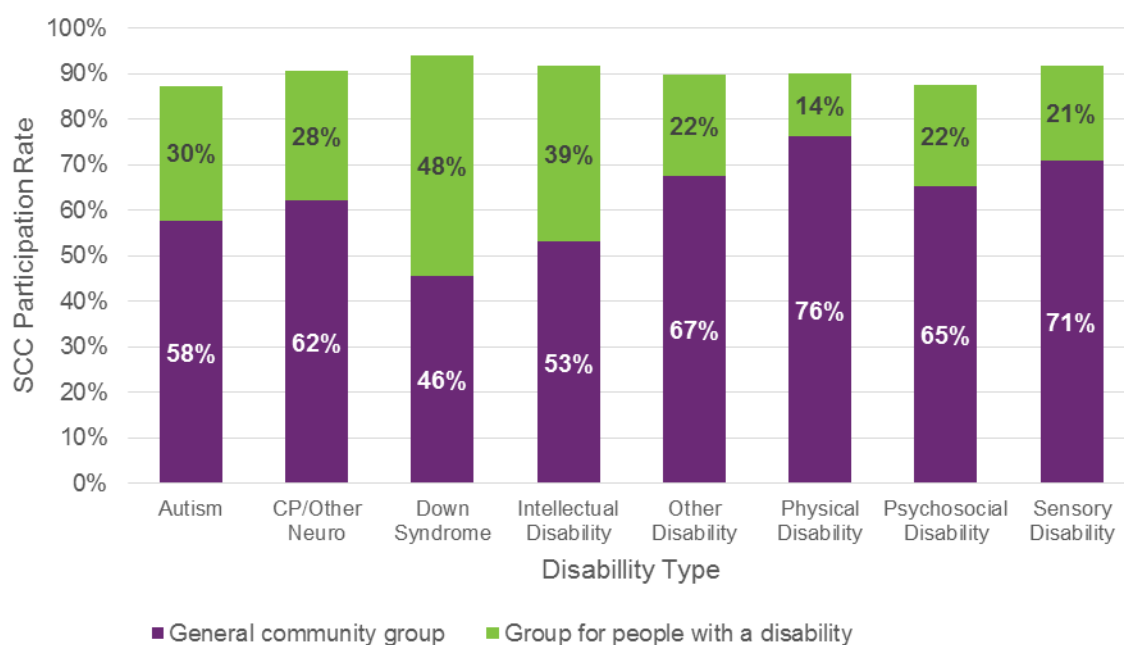


Figure 14.3 SCC participation rates at review for participants involved in a SCC group at baseline, by disability type



15. Participants aged 15 to 24 and 25 and over: Has the NDIS helped?

15.1 Aggregate results

For participants entering the Scheme in the first three quarters of transition, and who have been in the Scheme for approximately one year as at 30 June 2018, Figure 15.1 shows the percentage who think that the NDIS has helped with outcomes related to each of the eight domains, separately for participants aged 15 to 24 and those aged 25 and over.

Figure 15.1 Percentage who think that the NDIS has helped with outcomes related to each domain

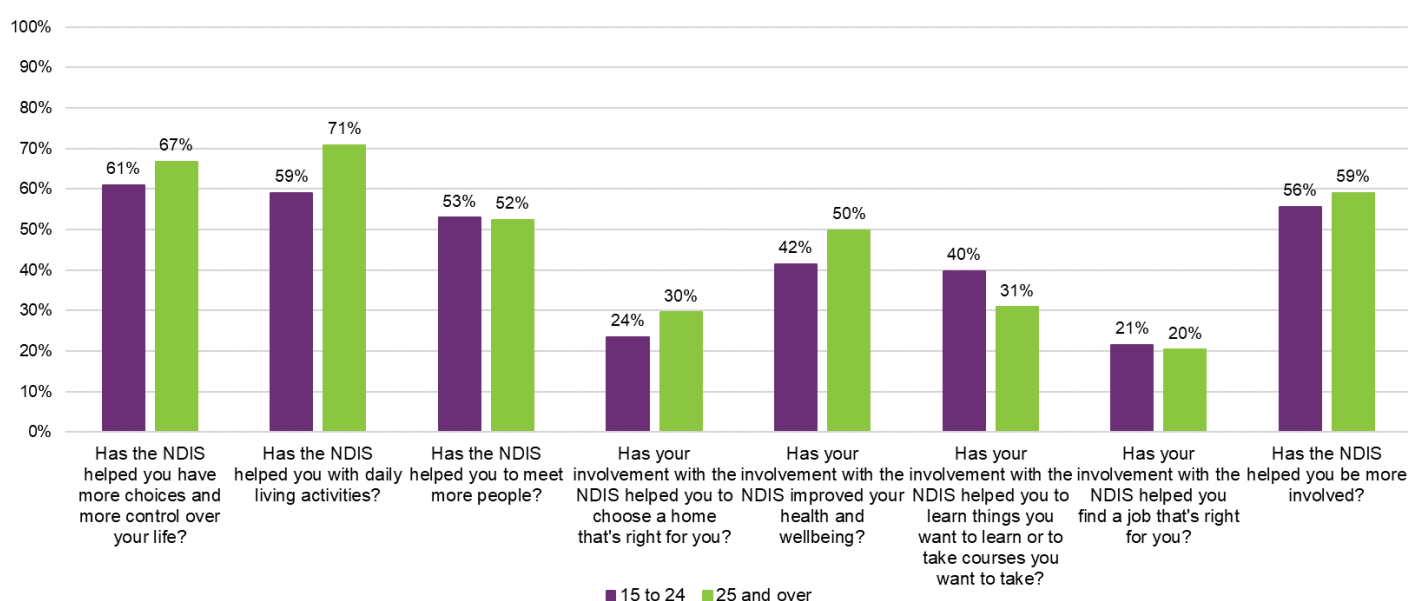


Figure 15.1 shows that opinions on whether the NDIS has helped vary considerably by domain for the adult cohorts. Generally, results are more positive for the older adult cohort compared to the young adult cohort. However the young adult cohort is more likely to think that the NDIS has helped with education.

15.1.1 Participants aged 15 to 24

The percentage responding positively is highest for choice and control (61%), and is also above 50% for daily activities (59%), relationships (53%), and participation (56%). These are all domains where the NDIS would be expected to have an impact. Percentages are lower for health and wellbeing (42%) and lifelong learning (40%), and still lower for home (24%) and work (21%).

15.1.2 Participants aged 25 or over

For participants 25 and over, opinions on whether the NDIS has helped tend to be slightly more optimistic than for the young adult cohort, apart from lifelong learning and work, but generally reflect a similar pattern by domain. The percentage who think the NDIS has helped is highest for daily activities (71%), followed by choice and control (67%), participation (59%), and relationships (52%). These are all domains where the NDIS would be expected

to have an impact. Percentages are still above 50% for health and wellbeing, but lower for lifelong learning (31%), home (30%) and work (20%).

15.2 Results by participant characteristics

15.2.1 Participants aged 15 to 24

Analysis by participant characteristics, using one-way analysis and multiple regression, reveals the following key findings:

- Baseline plan utilisation is an important predictor for all eight domains. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped.
- Annualised cost of baseline plan also has an impact on the likelihood of a positive response. A generally increasing trend towards responding positively as plan cost increases is observed. Related to this, for some areas the likelihood of a positive response tended to increase as participant's level of function decreased.
- The likelihood of responding positively tended to increase with age for most areas.
- Participants with a sensory disability, and those with a psychosocial disability, tended to be less positive about the NDIS having helped, and participants with intellectual disability tended to be more positive on average.
- Participants in TAS and ACT tended to be less positive, and those in QLD and WA tended to be more positive.
- Participants in outer regional or more remote areas were more likely to think that the NDIS had helped with daily living and participation.
- There was a slight but consistent trend for Indigenous participants to respond less positively across all domains, however results for CALD and non-CALD participants were generally similar. There were also no appreciable differences by gender.

15.2.2 Participants aged 25 or over

Analysis by participant characteristics, using one-way analysis and multiple regression, reveals the following key findings:

- Baseline plan utilisation is an important predictor for all eight domains. In particular, those with very low utilisation (below 20%) are much less likely to say that the NDIS has helped.
- Annualised cost of baseline plan also has an impact on the likelihood of a positive response. A generally increasing trend towards responding positively as plan cost increases is observed. Related to this, for some areas the likelihood of a positive response tended to increase as participant's level of function decreased.
- There is a slight trend towards a declining percentage of positive responses with increasing age for relationships, lifelong learning, and participation. For work, the likelihood of responding positively is lower for participants aged 55 or over.
- The percentage responding positively is consistently lower across all domains for participants with deafness/hearing loss or another sensory/speech disorder, and is also generally lower for participants with visual impairment. Participants with an intellectual disability tended to be more positive on average.
- Participants in TAS and VIC tended to be less positive, and those in QLD and WA tended to be more positive.
- Participants in outer regional or more remote areas were slightly more likely to think that the NDIS had helped for all domains except work.

- There was a slight but consistent trend for CALD participants to respond less positively across all domains. Results for Indigenous participants were slightly worse for lifelong learning and work, but similar to those for non-Indigenous participants for other domains. There were no appreciable differences by gender.