



# Project Independence

Return on investment analysis

October 2020

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## Report scope

KPMG is proud to have worked with Project Independence (PI) on a pro-bono basis to produce this report. Specifically, this report examines the PI model, which provides individuals with an ID the option of a more independent living arrangement.

This report considers the return to government from investing in the PI model relative to three other housing options available to individuals with an ID:

- continuing to live with family/carers (**Scenario 1**);
- public housing (**Scenario 2**); and
- community housing (**Scenario 3**).

The ROI analysis is based on the ACT government's initial investment of land valued at \$724,554 per site.

The analysis quantifies the cost savings to government from residents moving out of home or public housing and into a PI model. These savings arise from both savings in capital and operating expenditures, and savings in government financial supports that are no longer required if individuals choose the option of the PI model.

The ROI is calculated from the perspective of the government. It should also be noted that some of the possible cost savings to government have not been monetised as there is insufficient data and information. Where assumptions around key inputs have been made that may significantly affect the size of the ROI, sensitivity analysis are provided as an indication of the ROI range.

The PI model provides broader benefits beyond these cost savings to government. These include benefits to the individuals (the PI residents), their families and carers, and to the broader society. While these benefits are not able to be included in the ROI, they are important to note. This report recognises and highlights some of these longer-term potential benefits with evidence from the literature.

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## Executive summary

Individuals with an intellectual disability (ID) face significant barriers to home ownership. This is because they are less likely to be in the labour force, be employed, and earn a salary or wage. For many, the available housing options are to continue to live at home with family, or to apply for public or community housing. These options result in people remaining on a long-term rental basis, with no clear pathway to eventual home ownership.

Project Independence (PI), which is a form of community housing, provides an alternative housing model for individuals with an ID. It is designed as a pathway towards successful home ownership. For residents, the key benefit stems from the ability to save and contribute to build home equity throughout their tenure at PI. This enables residents to access the capital gains associated with home ownership not available under other housing options, while also being provided with opportunities to develop independent living skills useful for eventual home ownership.

This report focuses on analysing the return on investment (ROI) of PI to the government relative to three existing housing options for individuals with an ID:

- continuing to live with family/carers (**Scenario 1**);
- public housing (**Scenario 2**); and
- community housing (**Scenario 3**).

Our findings highlight a substantial ROI from the government's perspective. As shown in the chart, **based on the initial investment of a representative plot of land (\$724,554) to PI**, the ROIs of each scenario are:

- **Scenario 1: every \$1 in land invested generates \$2.43 in return.**
- **Scenario 2: every \$1 in land invested generates \$3.84 in return.**
- **Scenario 3: every \$1 in land invested generates \$2.43 in return.**

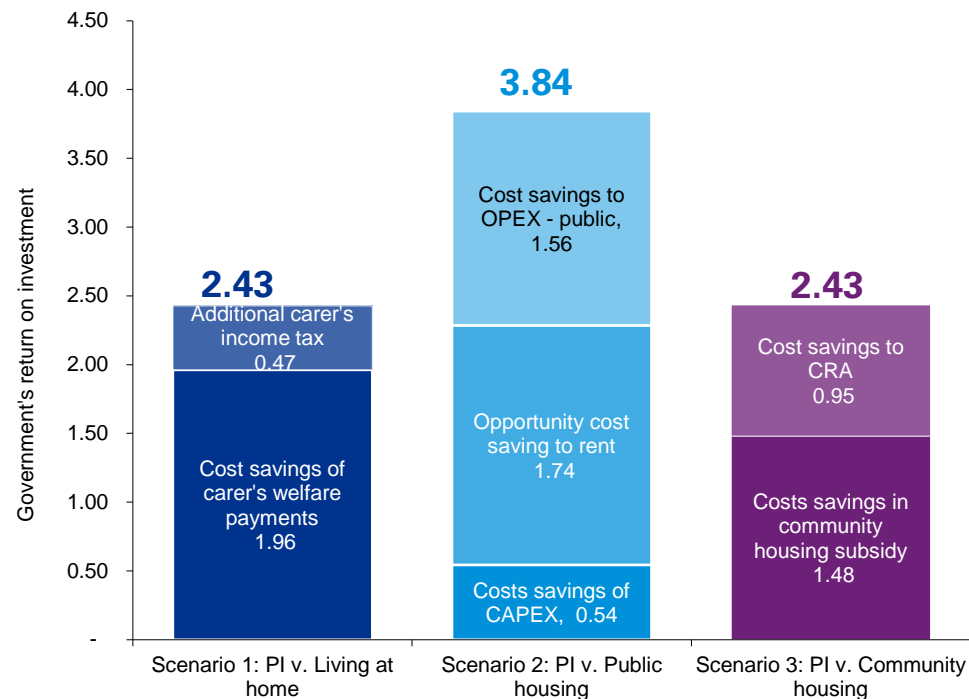
The benefits and cost savings to government under these scenarios come from reduced demand for social housing (as individuals move into PI) that requires significant government funding and support. In addition, part of the benefit is also driven by carers' greater engagement with the labour force.

These benefits and cost savings affect more than the initial 10 residents that live in a PI site. Due to the transitional nature of the model, a portion of residents gain sufficient financial and personal independence to buy a home outside of PI, and allow for the entry of new residents into PI. In contrast to existing housing options where people remain over the longer-term, each PI site is able to benefit several cohorts of residents.

The analysis presented in this report focuses on the government's ROI based on the provision of a plot of land to PI. However, it should be noted that the government's benefits are in part the result of private contributions by residents and their families. For example, entry to PI requires residents to initially fund a 10% deposit.

There are also wider benefits to residents and their families from the PI model. These include the potential impact of independence on a resident's quality of life, the non-monetary benefits of owning your own home, and the value to the respective families of securing long-term housing for these residents.

While not monetised in this report, in addition to the government's ROI, these benefits to residents and families form an important part of understanding the broader potential impacts of PI.



Source: KPMG analysis

Note: Analysis based on central assumptions outlined in Section 3.1. Figures may not add up due to rounding.

# 1. Background

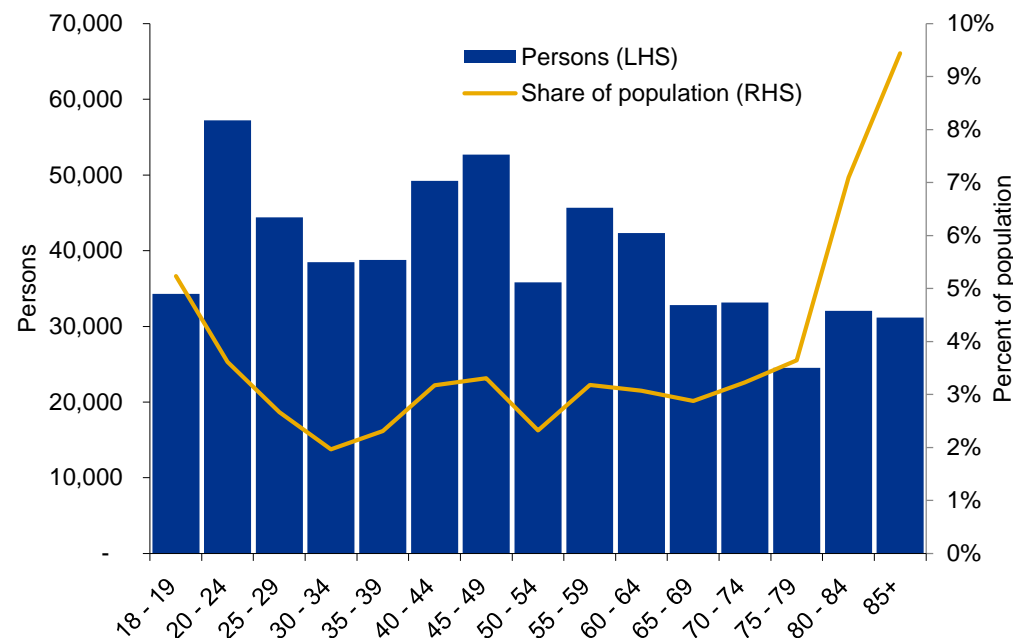


## 1. Intellectual disability (ID) in Australia

Data from the Australian Bureau of Statistics (ABS) 2017-18 National Health Survey (NHS) indicates that there are approximately 600,000 adults (18 years old and above) with an intellectual disability (ID). This represents approximately 3.2% of adults in Australia.

As shown in Figure 1 below, intellectual disability affects Australians of all ages. Rates of ID increases substantially with age, and is the highest for those aged 85 years and above.

Fig. 1: Age distribution of people (18+) with an intellectual disability, 2017-18

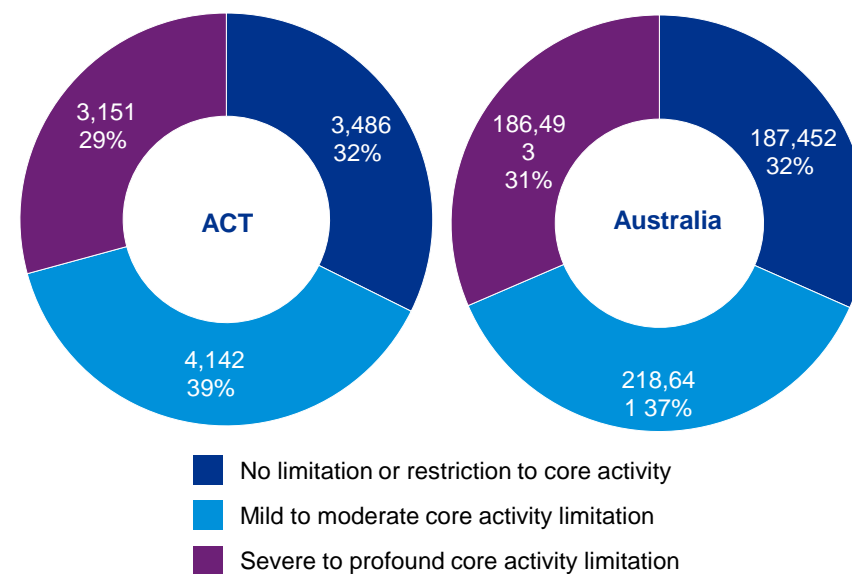


Source: KPMG analysis of 2017-18 National Health Survey (NHS)

From Figure 2, just under 220,000 (37%) of adults with an ID are classified as having mild to moderate core activity limitation. This measures the extent to which a person requires help, faces difficulty, or uses aids/equipment in their daily lives, that thus indicates their level of mobility, self-care and ability to perform communication tasks.<sup>1</sup>

In the ACT, there are around 10,500 people with an ID, 4,142 (39%) of whom have a mild to moderate ID. As shown in Figure 2 below, this is broadly comparable with the numbers observed across Australia. People with a mild to moderate ID are most likely able to pursue independent living arrangements, and is the cohort targeted by PI.

Fig. 2: Intellectual disability (18+) in the ACT and Australia, 2017-18



Source: KPMG analysis of 2017-18 NHS

- Intellectual disability affects close to 600,000 adults (3.2%) in Australia of all ages.
- Around 39% and 37% of the ID population in the ACT and Australia face mild to moderate core activity limitations.

## 1.1 Support provided to individuals with an ID

Individuals with an ID can receive a range of financial supports from the government:

### Disability Support Pension (DSP)

The DSP is provided by the Commonwealth to people with a disability, with the rate of payment depending on the recipient's income, dependency status, and relationship status. The DSP is likely to be a main source of income for people who are unable to work as a consequence of their disability.

For a single recipient, the maximum DSP per fortnight is \$944.30.<sup>2</sup>

### Commonwealth Rent Assistance (CRA)

The CRA is rental support provided by the Commonwealth to people renting privately, and those accessing community housing. This payment is not available to someone paying rent to a government housing authority (*i.e.* public housing). People who are currently accessing the DSP may still be eligible for the CRA.<sup>3</sup>

The maximum payment for a single person with no dependent children is AUD139.60 per fortnight.<sup>4</sup>

### National Disability Insurance Scheme (NDIS)

Individuals with an ID can also access NDIS payments. Around 22% of NDIS participants report ID as their primary disability, second only to autism at around 31% (NDIS, 2020a). NDIS plans are available to people aged 7-65 with a 'permanent and significant' disability, who require special equipment, or require supports today to reduce future needs.<sup>5</sup> Individual NDIS plans will vary according to the level of support required.

As shown in Figure 3, in Australia, close to 82,000 people with an ID have access to NDIS support as of March 2020 (NDIS, 2020a). On average, the annualised support plan for this cohort is \$98,000 (NDIS, 2020a). This comes in the form of:<sup>6</sup>

- Core support: funding to support assistance in daily activities and support to purchase consumables.
- Capacity building support: funding to improve the living situation and independence of people with a disability, including assistance with finding employment or a place to live.
- Capital support: funding for accessibility modifications and purchases of higher-cost assistive equipment.

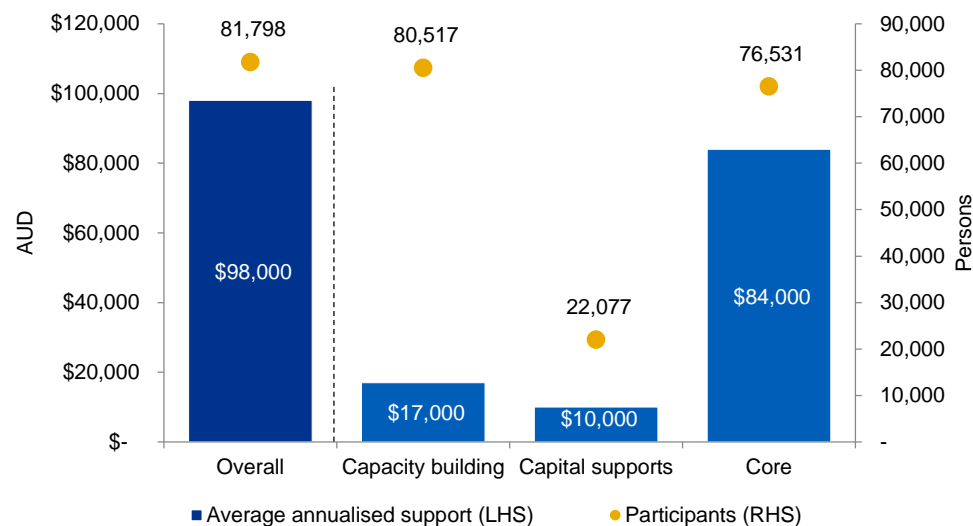
In general, NDIS plans do not fund accommodation costs. Specialised Disability Accommodation (SDA) is only available to those who require specialised housing solutions due to exceptional support requirements. Around 6% of NDIS participants are estimated to be eligible for SDA funding (NDIS, 2018). Thus, SDA support is likely only available to people with severe and profound IDs, and not for the cohort with mild to moderate IDs.

An additional aspect of the NDIS relates to payment for Supported Independent Living (SIL). SIL funds support for assistance and supervision of daily tasks to allow people to live independently. This payment is commonly used in shared living arrangements (NDIS, 2020b).

### Informal care

In addition to the types of formal support described above, informal support provided by family members and informal carers are also key factors in the overall support strategies for people with an ID. Informal care is associated with clear economic costs, even if no explicit dollar value is attached to the hours of care provided.

Fig. 3: NDIS support and participants with ID, Australia, March 2020



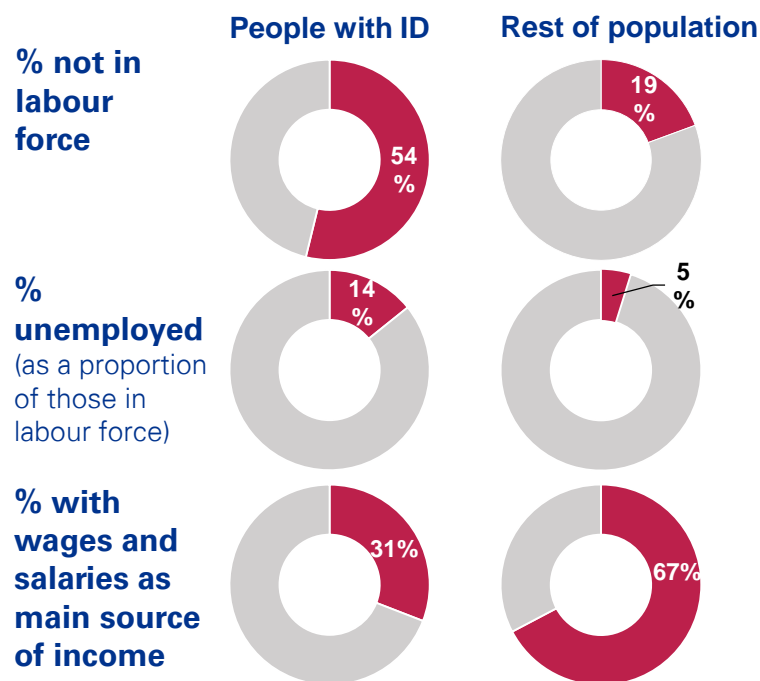
Source: KPMG analysis of NDIS (2020a)

Note: This graph shows participants who report intellectual disability as their primary disability. Average support has been pro-rated to an annual rate.

## 1.2 The barriers to home ownership

There are strong barriers to home ownership for people with an ID. A key reason for this is that individuals with an ID often have, on average, poorer labour force outcomes and are less likely to have wages or salaries as their main source of income. This is shown in Figure 4 below.

Fig. 4: Labour force outcomes of people with intellectual disability (15-64), 2017-18



Source: KPMG analysis of 2017-18 NHS

These factors mean that without additional support from family, people with an ID face significant financial challenges in accessing the private housing market, and in saving for a future home deposit (Gooding, 2017).

Based on the economic barriers described here, home ownership rates for people with an ID are likely to be lower than the rest of the population.

NHS data indicates that only around 58% of people with an intellectual disability live in an owner occupied dwelling, compared with 70% for the rest of the population (ABS, 2018).<sup>7</sup>

## 1.3 Living situations of people with an ID

This section outlines the current three key living arrangement options available to individuals with an ID.

### Living at home

The financial challenges faced by people with an ID mean that they are unlikely to access the conventional rental markets or home ownership. For the rental market for example, there were no rental properties in ACT and Queanbeyan that were affordable and appropriate for the average single adult relying the DSP as their main income (Anglicare, 2020). Continuing to live at home is thus a common outcome.<sup>8</sup>

Table 1 below indicates that around 64% of individuals with an ID live in family households. This likely reflects the 'default' pathway of someone who has yet to, or is unable, to move into independent living situations.

Tab. 1: Living situation of people with an intellectual disability, 2012

	Share (%)
Family household	64%
Lone person household	14%
Group household	3%
Other households n.f.d	0%
<b>Living in household</b>	<b>82%</b>
Living in an establishment (a)	16%
Other dwellings n.f.d.	2%
<b>Total</b>	<b>100%</b>

Source: ABS Cat. No. 4433.0.55.003

Note: n.f.d. = Not further described.

(a) Living in an establishment includes people living in hospital, aged care/nursing homes, retirement villages, and group homes. Around 95% of people living in an establishment are above 60 years old (ABS, 2012).



## Public housing

Public housing is the main component of the social housing stock, and is provided at the state or territory level. These are government-owned and government-managed properties. From Table 1, people with an ID living in public housing on their own would be captured under the 'Lone person household' category.

People with an ID currently living at home are not likely to be placed on priority waitlists to access this housing option. These tend to be reserved for individuals with complex needs including those who are homeless or at risk of becoming homeless.

For those assigned to the standard waitlist, the average wait time is 1,268 days, or around 3.5 years.<sup>9</sup>

In addition to long waitlists, consultations with PI stakeholders have also highlighted that people with an ID may face challenges in progressing through the public housing application process without additional support. For example, some individuals may face difficulty in collecting and documenting evidence for their applications.

Residents of public housing in the ACT pay the minimum of 25% of their income or the market rent.<sup>10</sup> In 2018-19, Housing ACT collected a total of \$87.7 million in net rent (less rent rebates) (ACT Government, 2019). With a total of close to 11,000 dwellings (AIHW, 2020), this translated to approximately \$8,000 in annual rent paid per dwelling.

## Community housing

Community housing refers to housing properties run by non-profit organisations, but could be owned by the state/territory government.<sup>11</sup> Costs associated with community housing are partially funded via private sources, with government support (e.g. grants, land, leases) provided on an ad-hoc basis. For example, the state government may transfer land to community housing providers (CHPs) to develop new sites. For those in community housing who are living in the same household as other unrelated people, they are likely to be captured under the 'Group household category' in Table 1.

Community housing may target specific cohorts to fulfil certain social objectives, such as the provision of housing services to people with a disability. In the ACT, there are only 7 providers (35%) that target people with a disability (ACT Government, 2019).

In traditional community housing settings, residents generally contribute 75% of their DSP, and all of their CRA towards rent.

Consultation with PI stakeholders indicate that people with an ID, once entering public or community housing, are likely to remain in these settings for the long-term – often for the rest of their lives.

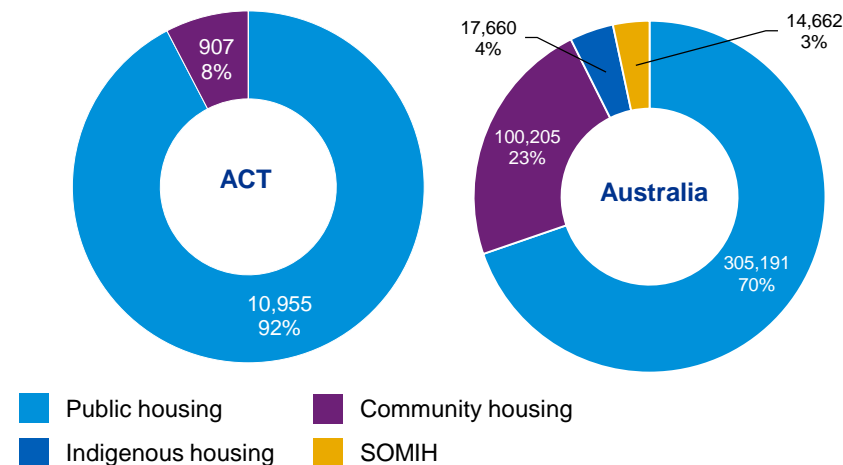
### Social housing in Australia

Social housing includes public housing and community housing. In some jurisdictions, State Owned and Managed Indigenous Housing (SOMIH), and Indigenous community housing may be separately classified (AIHW, 2020).

Figure 5 below highlights the various forms of social housing in Australia and the ACT. In the ACT, around 92% of social housing dwellings are public housing. Community housing dwellings are a relatively small component at around 8%.

At the national level, public housing only accounts for 70% of social housing dwellings. Community housing dwellings make up a larger share at around 23%. The remainder consists of indigenous housing and SOMIH.

Fig. 5: Social housing dwellings in the ACT and Australia, 2019



Source: AIHW (2020)

Note: SOMIH = State Owned and Managed Indigenous Housing.

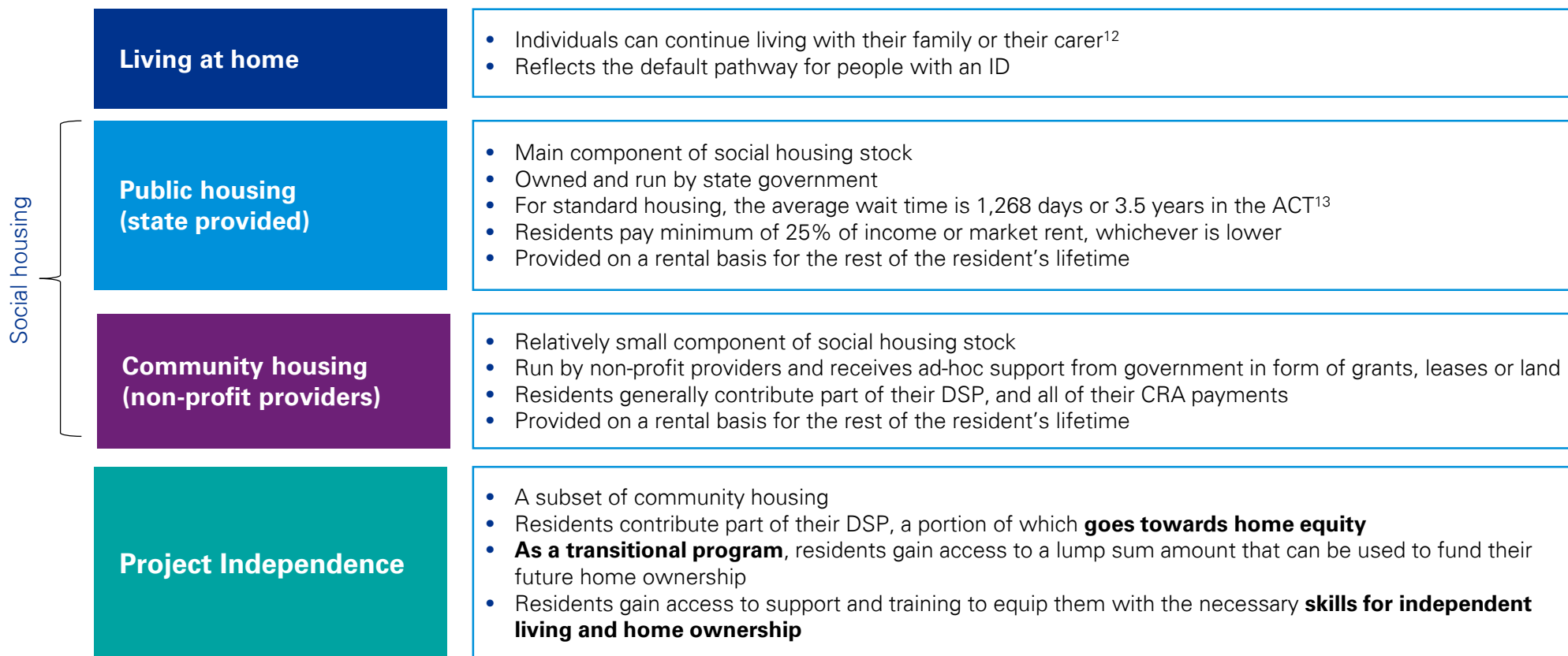
## 1.4 Housing options for people with an intellectual disability

Figure 6 summarises the main housing options available to a person with an ID.

In the absence of external supports (e.g. inheritance), these housing options lack a clear pathway towards future home ownership. For example, in community housing options, a significant proportion of a resident's income goes towards rent, leaving them with little flexibility to save for a home deposit. Further, individuals may also lack the necessary skills that sets them up for success as a home owner, including managing finances or maintaining a property. In addition, as individuals are assigned public and community options and are likely to remain in these settings for the longer-term, individuals are not provided options around where they want to live, and whom they want to live with.

Project Independence provides an alternative housing model for individuals with an ID to attain home ownership and to build the independent living skills needed as a home owner.

Fig. 6: Housing options for people with an intellectual disability



# 2. Project Independence





Project Independence transforms the lives of people with intellectual disability by empowering independence through home ownership.

*Project Independence*

## 2.1 What is Project Independence (PI)?

PI is a subset of community housing, and is aimed at people with a mild to moderate ID. PI provides an alternative housing model for individuals with an ID to:

- access home ownership; and
- build independence and skills required for successful home ownership.

Figure 7 illustrates the PI model for a representative resident between arriving and moving out.

### How is Project independence funded?

The existing PI sites in the ACT have received support from the ACT government in construction costs and land, as well as philanthropic contributions from the community.

Financial analysis conducted by EY (2015) shows that the ongoing costs of the PI model can be independently sustained based on by residents' ongoing contributions, and PI's share of capital gains. Importantly, the PI model requires no ongoing funding from the government.

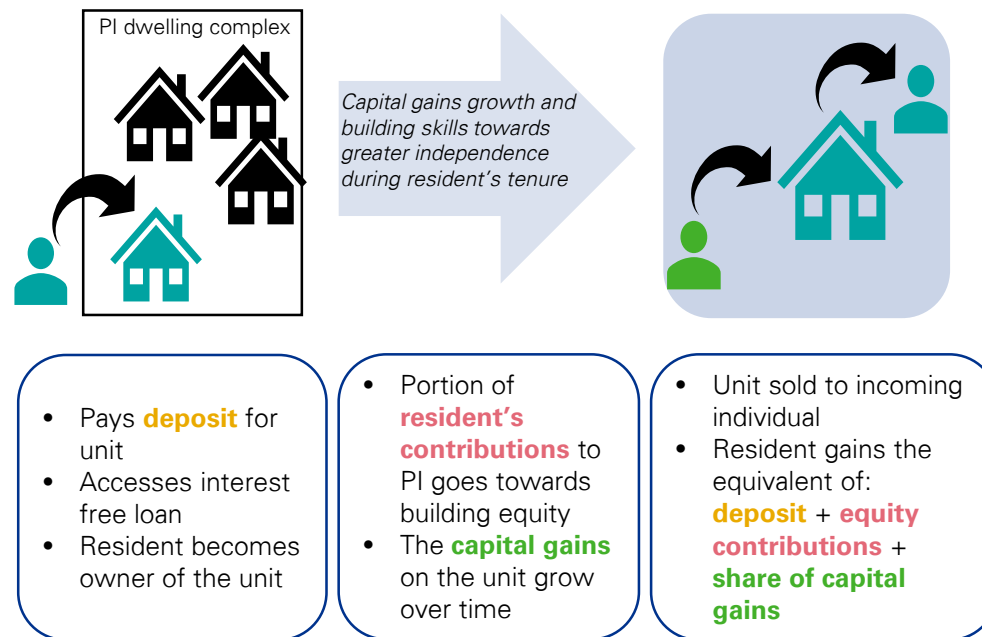
## 2.2 Access to home ownership

A key distinction between PI and other community housing options is that resident payments from their DSP go toward building home equity rather than being used solely as rental payments.

The PI model helps individuals save and contribute to equity throughout their tenure, allowing them to access a substantial lump sum amount when they decide to move out. This amount can be used by residents to fund their home deposit. This is in contrast to other social housing options where residents remain long-term renters, and are unable to partake in any capital gains.

For example, a resident who pays \$25,000 as an initial deposit and makes only the minimum contributions, will receive \$58,000 at the end of their stay in year 6, or \$110,000 if they move out only in year 12.<sup>14</sup>

Fig. 7: Project Independence model



## 2.3 Building independence

In addition to the financial outcomes presented here, a key part of the PI model is to build the independent living skills of people with an ID. Supported by a live-in residential coordinator (funded by pooling residents' NDIS support payments), residents are encouraged to develop skills in areas such as self-care, managing finances, participating in the community, and social and relationship skills.

This is an important factor for successfully transitioning PI residents to home ownership, and developing greater independence in their daily lives.

## 2.4 Benefits of Project Independence

The benefits of PI accrue from two mechanisms: by [enabling residents to become independent](#); and [transitioning people into home ownership](#).

PI creates benefits that have immediate financial impacts for government, residents and their families. PI also creates better long-term outcomes for residents, providing longer lasting impacts for residents and their families. While the direct financial benefits can be valued, some of the other benefits are not so easily monetised. The benefits have been organised into six key areas:

### 1 The PI model reduces pressure on social housing and rent support.

Each person that enters PI and subsequently transitions to home ownership reduces the use of public and community housing. Thus, PI has the potential to [reduce the costs associated with expanding and maintaining the social housing stock](#). Importantly, the benefits of PI will accrue over time. As more cohorts transition from PI to home ownership, the cumulative benefits associated with each PI site will also grow.

### 2 Independent living reduces the need for informal care.

Informal caring responsibilities affect the capacity of carers to participate in the labour market. Allowing people with ID to become more independent could unlock significant benefits from the perspective of carers and government. For carers, [reduced caring responsibilities allow them to pursue new opportunities for labour and leisure](#). Higher labour force participation by carers mean that governments could see higher income tax revenue, and reduced income support to carers.

### 3 Greater independence is associated with improved quality of life.

Living in a setting with more [opportunities for self-determination and choice-making](#) is an important step towards independence (Stancliffe & Keane, 2000; Kozma et al., 2009). Independence is widely recognised as a component in quantitative measures of a person's [quality of life](#) (Simões & Santos, 2016).

### 4 Individuals that build daily independent skills are more likely to be active in the labour force.

PI aims to provide support and training to explicitly develop residents' independent living skills. The ability to carry out daily living activities, such as in food preparation, household chores, and managing money, are not only key indicators for independence (Edemekong et al., 2020), but also an important factor for [sustaining residents' engagement with work](#) (Chan et al., 2018; McCausland et al., 2020).

### 5 Home ownership is associated with higher life satisfaction.

A key outcome of the PI model is to provide a pathway to home ownership to people who would otherwise have remained in long-term rental situations. In addition to the tangible benefits of home ownership such as reducing rental stress, home ownership can also have an impact on a person's life satisfaction (Dockery & Bawa, 2019). Further, in qualitative terms, [home ownership can also accord people with a sense of achievement and pride](#) (Commonwealth of Australia, 2008).

### 6 Pathway to home ownership provides assurance for the future.

Families of people with a disability have often highlighted [concern for the future housing and care](#) of their loved ones (Wiesel et al., 2015). The PI model provides a valuable solution by creating a pathway to secure housing and independence.

## 2.5 Summary of support differences between mapped housing options and Project Independence

Figure 8 summarises the key differences in support available to a person in each housing option examined in this report.

Fig. 8: Comparison of housing options and Project independence

	Informal care	Disability Support Payment (DSP)	Commonwealth Rent Assistance (CRA)	Land or capital from government	Government ongoing expenditure
<b>Living at home</b>	✓	✓			
<b>Public housing (state provided)</b>		✓		✓	✓
<b>Community housing (non-profit providers)</b>		✓	✓	✓	✓
<b>Project Independence</b>		✓		✓	

Social housing

Residents of PI do not receive the CRA as they are owners, not renters.

Community Housing Providers (CHPs) may receive support from the government in the form of grants, but this is generally provided on an ad-hoc basis.

# 3. Analysis





## 3. Analysis

This section presents the key findings of our analysis on the ROI in PI for government. As such, financial gains to PI residents, while important, are not included in the analysis.

The key question addressed in this section is:

**What is the government's return on investment when providing land to Project Independence?**

### 3.1 Modelling assumptions

The following modelling assumptions were required for the analysis:

- The ROI is calculated over a 30 year period. This is based on PI's advice regarding the expected lifespan of a PI dwelling complex.
- Each PI site provides housing for 10 residents.
- Accumulated annual benefits or costs are calculated using a net present value method with a real discount rate of 7% as a central case.<sup>15</sup> The discount rate is based on guidance set out by the Office of Best Practice Regulation (2020). Sensitivity analysis of this assumption is included in Appendix C.
- We assume that 75% of each cohort of residents will transition out of PI every ten years. The remainder are assumed to remain in PI. Sensitivity analysis of this assumption is included in Appendix C.
- The average age of a resident moving into PI is 32 years old. This is based on the average age of people currently on the PI waitlist. The average life expectancies of people with mild and moderate ID are 74 and 67.6, respectively (Bittles et al, 2002). The average (71 years) has been used for all residents at PI in the analysis.
- Carers of residents are assumed to have a potential working lifespan of 10 years, from when the individuals under their care become residents of PI.
- Each resident of PI is associated with one carer.
- Carers re-enter the workforce at the labour force participation rate of 62%.
- Residents of public housing and community housing are assumed to remain on a rental basis and do not transition into home ownership.

## 3.2 Description of scenarios

### Scenario 1: Project Independence v. Living at home

This scenario considers the case where individuals with an ID continue to live at home instead of entering Project Independence.

Under this scenario, individuals are not provided as many opportunities to develop independent living skills and continue to rely on the informal care provided by families.

In this scenario, we assume that residents continue to live at home with informal carers (parents, siblings or family members) for the rest of their lives.

### Scenario 2: Project Independence v. Public housing

This scenario considers the case where individuals with an ID enter public housing instead of entering Project Independence.

Individuals are assumed to be living alone and are also assumed to not require informal care from their families. Further, residents are not given as many opportunities to develop independent living skills which would otherwise be gained by living in PI.

Public housing is provided and funded by the state government. Residents continue living in public housing for the rest of their lives.

### Scenario 3: Project Independence v. Community housing

This scenario considers the case where individuals with an ID enter community housing instead of entering Project Independence.

Under this scenario, we conservatively assume that individuals do not require informal care from their families as they gain access to formal support offered in a community housing setting. Their accommodation is partially supported by the CRA. Similar to Scenario 1 & 2, residents are not provided as many opportunities to develop independent living skills.

Residents continue to live in community housing for the rest of their lives.

## 3.3 Quantification of benefits and cost-savings.

This section details how the benefits and cost-savings from Section 2 were arrived at. All figures presented in the value column in the table below are in 2020 dollars.

	Value	Description	Party
<b>The PI model reduces pressure on social housing and rent support.</b>	\$3,630 per annum per resident.	<b>Cost savings to CRA – community housing</b> Under the PI model, residents have a stake in the unit and therefore no longer receive rental assistance valued at a maximum of \$139.60 per fortnight. <sup>16</sup> This benefit only accrues in the comparison with community housing, as those in public housing or living with family are not eligible for the CRA. This effect is sustained for the duration of the resident’s working lifespan.	Government (Federal)
	\$2,067 per annum per resident	<b>Cost savings to capital expenditure (CAPEX) – public housing</b> While there is a cost-saving to government from public housing construction costs, it is equally important to consider the corresponding gain in the Territory’s balance sheets. Construction expenditure on public housing stock is matched by an increase in the government’s capital assets. It is assumed that these effects completely offset each other and any ongoing capital expenditure perfectly compensates asset depreciations. Hence, the applied cost savings to CAPEX is equivalent to the depreciation of the public housing asset - around \$4,113 per dwelling (Productivity Commission, 2020). This is equivalent to approximately \$2,067 per person in 2020 dollars based on the previously estimated average number of occupants per dwelling. This was estimated at around 2.02. <sup>17</sup>	Government (State/Territory)
	\$5,927 per annum per resident	<b>Cost savings to operating expenditure (OPEX) – public housing</b> The average recurrent government expenditure (excluding capital costs) on public housing is around \$11,795 per dwelling per annum in the ACT in 2018-19 (Productivity Commission, 2020). Applying the previously estimated average density of 2.02 occupants per dwelling, this is approximately \$5,927 per resident per annum in 2020 dollars. This cost-saving occurs as government is responsible for the operating expenditure incurred in the running of public housing. This cost is required for the duration of the resident’s lifespan.	Government (State/Territory)

	Value	Description	Party
<b>The PI model reduces pressure on social housing and rent support (continued).</b>	\$5,623 per annum per person.	<p><b>Cost savings in subsidy to community housing</b></p> <p>Our review did not identify a publicly available figure on the level of average ongoing government support to community housing providers (CHPs).<sup>18</sup> Nevertheless, this is likely to be a significant component of CHPs' funding model. This is because there exists a widely recognised funding gap between the cost of providing social housing, and providers' revenue (CRA and rent) (Australian Housing and Urban Research Institute (AHURI), 2019). For example, the AHURI modelled the gap between CHP's cost and funding to be around \$13,000 per dwelling every year (Lawson et al 2018). This is in contrast with the \$8,850 operating funding gap per dwelling estimated by the Affordable Housing Working Group (2017). The average of these two estimates, in 2020 dollars, is around \$11,341 per dwelling. This is equivalent to around \$5,623 per person based on a previously estimated average 2.02 occupants per dwelling.</p> <p>These figures could be viewed as an <i>upper bound</i> on the level of support that governments need to provide. We apply these figures as a proxy of what CHPs could receive from the government in terms of ongoing support.</p>	Government (State/Territory and Federal)
	\$6,619 per annum per resident	<p><b>Opportunity cost of rent – public housing</b></p> <p>It is also important to consider the rental opportunity cost of providing public housing. In 2018-19, the ACT government collected a total of \$87.7 million in rent (ACT Government, 2019). This is significantly lower than the \$232 million the government estimates it would receive if the public housing stock were rented out at market rates (ACT Government, 2019). Based on the current number of public housing dwellings and occupants, the rental opportunity cost of each dwelling in 2020 dollars is on average, \$13,348 per year, or \$6,619 per resident.</p>	Government (State/Territory)
<b>Independence for loved ones reduces the need for informal care.</b>	\$12,014 per annum per resident	<p><b>Cost savings of welfare payments – living at home</b></p> <p>Due to stronger engagement with the labour market, carers reduce their access of welfare payments. Welfare payments to carers not in the labour force (NILF) is estimated to be \$346 (\$375 in 2020 dollars) higher per week compared with non-carers in part-time employment (Schofield et al., 2019).<sup>19</sup> This benefit occurs when residents move from living at home to PI, and is sustained for the duration of the carer's remaining working lifespan. This cost savings is scaled by the average 2019-20 labour force participation rate of around 62% in order to account for the fact that not all carers would transition into the labour force.<sup>20</sup></p>	Government (Federal)
	\$2,847 per annum per resident	<p><b>Additional carer's income tax – living at home</b></p> <p>Reduced informal caring responsibilities means that carers can work more and contribute more to income tax. Non-carers in part-time employment contribute an additional \$82 (\$89 in 2020 dollars) in income tax per week compared with carers NILF (Schofield et al., 2019). This benefit occurs when residents move from living at home to PI, and is sustained for the duration of the carer's remaining working lifespan. Like the cost savings associated with welfare payments, this is also scaled by the labour force participation rate.</p>	Government (Federal)

	Value	Description	Party
<b>Greater independence is associated with improved quality of life.</b>	Not monetised	<p><b>Value of higher quality of life</b></p> <p>Quality of life (QoL) metrics attempt to holistically capture factors contributing to an individual’s wellbeing, such as a person’s physical and mental health. Independence can be a key component of QoL measures (Simões &amp; Santos, 2016). For example, the Assessment of Quality of Life 4D (AQoL-4D) includes independence as one of the four dimensions of QoL (Hawthorne et al., 1999). Stancliffe &amp; Keane (2000) reports that independence-related QoL, as measured by the Empowerment dimension of the QOL-Q scale, was 2.09 units higher for people in semi-independent living versus a group home. However, in a similar analysis, Bigby et al (2018) found no significant differences between the QoL of people in supported living arrangements and group homes. On the other hand, this study showed significantly lower levels of support required, and thus costs, for those in supported living arrangements.</p> <p>It should be noted that current evidence in the literature may not be fully applicable to the PI model. Due to a lack of applicable and robust evidence, the value of higher quality of life has not been quantified or monetised in the analysis. Nevertheless, the research suggests a likely relationship between independence and improved QoL.</p>	Residents
<b>Individuals that build daily independent skills are more likely to be active in the labour force.</b>	Not monetised	<p><b>Value of residents’ work</b></p> <p>Approximately 40% of individuals with an ID are employed (ABS, 2018). The PI model is able to provide support and training that enables greater independence, increasing employment outcomes. One commonly-used measure of independence is the Instrumental Activities of Daily Living (IADL) (Edemekong et al., 2020). The IADL captures the ability of individuals to perform tasks such as food preparation, shopping, household chores, and managing money. The odds of being occupationally active (be in paid work, volunteer work, or in training) is around 3.89 (95% confidence interval (CI): 1.25 – 12.13) times greater for a person with higher IADL versus the odds of someone with lower IADL (McCausland et al., 2020).</p> <p>If the PI model is able support residents in developing greater independent living skills above and beyond other housing options, it has the potential to boost residents’ engagement with the labour force. The extent to which this occurs is unclear. A survey of PI residents in the future could be useful to fill this gap.</p>	Residents
	Not monetised	<p><b>Cost savings to DSP</b></p> <p>The DSP is a key source of income for people with ID who are not in the labour force, or are unemployed/underemployed as a result of their disability. The DSP is income-tested, with every dollar above \$178 in fortnightly income reducing the DSP by 50 cents.<sup>21</sup> If residents achieve better labour force outcomes as a result of independent living skills gained from PI, this would reduce the level of DSP support required, and achieve cost savings from the perspective of the government.</p>	Government (Federal)

	Value	Description	Party
<b>Home ownership is associated with higher life satisfaction.</b>	Not monetised	<p><b>Value of life satisfaction from home ownership</b></p> <p>Home ownership has a causal effect on life satisfaction, compared with renting. A longitudinal study using the Household, Income and Labour Dynamics in Australia (HILDA) dataset showed that after controlling for socioeconomic factors, the life satisfaction of the average home owners is on average 0.149 units higher than renters (Dockery &amp; Bawa, 2019). Life satisfaction in this study is measured on a 0 to 10 scale, with a higher score indicating higher life satisfaction. As a comparison, a one-off \$10,000 fall in household income had been associated with a decline of around 0.5 units on the HILDA life satisfaction scale (Huang et al, 2018). This study shows that owning a home is independently associated with better life satisfaction. As a pathway to home ownership, PI is able to provide value to its residents over other long-term renting options.</p>	Residents
<b>Pathway to secure housing provides assurance for future.</b>	Not monetised	<p>Consultations with PI stakeholders have highlighted that a primary concern for families of people with an ID is the uncertainty over the security of their housing and care when family or carers are no longer around to provide informal support. Some parents may opt to privately purchase a home for their children, funded by superannuation or the equity in their own home (Wiesel et al, 2015). From the perspective of people with an ID, being able to age within their own home is also of value (Strnadová, 2019). While there may be a 'willingness to pay' associated with entry into the PI program, this has not been monetised in the current analysis but could be done in the future by surveying individuals on the PI waitlist.</p>	Carers

## 3.4 Results

This section presents the key findings of the ROI under each scenario based on the estimates of benefits and cost-savings described in Section 3.3. A description of our methodology is included in Appendix B.

Saving for a home can be a challenge for many people with an ID. Thus, an important outcome of the PI model is that they receive a lump sum amount when they move out which can be used towards a deposit on a home. A key source of this benefit is the capital gains on the property, shared between the resident and PI. This financial gain is not available to people with an ID under existing housing options.

Figure 9 shows the government's ROI when providing a representative plot of land to PI valued at \$724,554:

### Scenario 1: Project Independence v. Living at home

The ROI in this scenario is driven by government cost savings due to carers re-engaging with the labour force. This includes a significant benefit from carers requiring fewer welfare payments from the government, and a smaller component from their additional income tax contributions.

**Every \$1 of land invested generates \$2.43 in return.**

### Scenario 2: Project Independence v. Public housing

The main drivers of the ROI in this scenario are the rental rebate/subsidy cost savings and the operating (non-capital) costs of public housing programs. Rent paid by public housing tenants is usually far below the market rate which presents an opportunity cost for government. Individuals whom no longer require public housing reduce the government's burden of providing rental rebates/subsidies as well as operational costs.

**Every \$1 of land invested generates \$3.84 in return.**

### Scenario 3: Project Independence v. Community housing

The main component of the ROI is the cost savings associated with government support to community housing providers and the CRA. There exists a funding gap between the costs and revenue of community housing, which requires implicit support from the government. In addition, residents also no longer require CRA from the government.

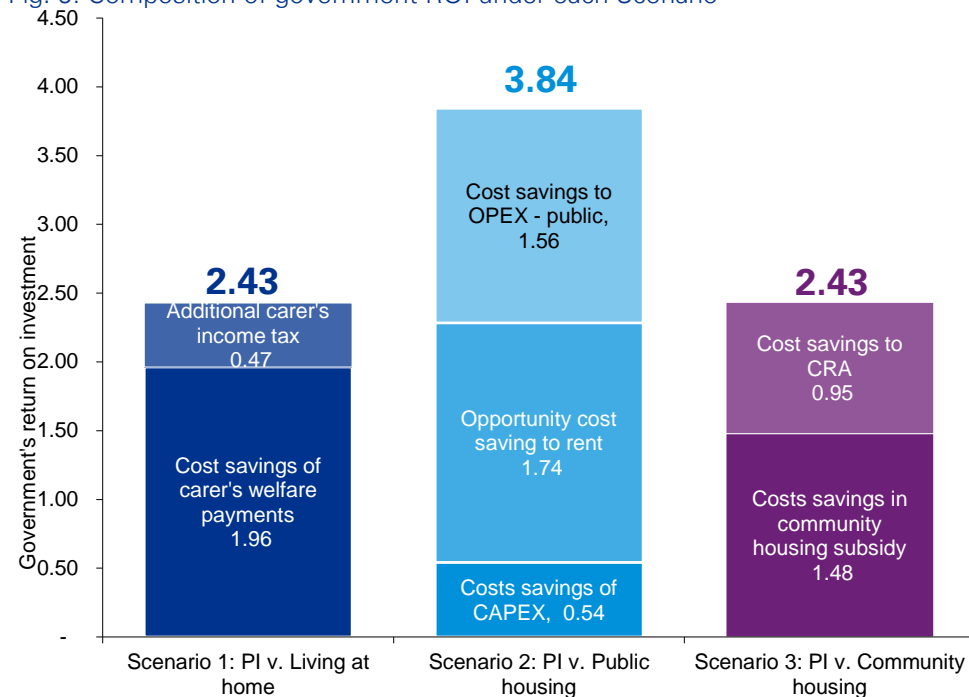
**Each \$1 of land invested generates \$2.43 in return.**

The ROI for all scenarios is greater than 2 suggesting that the benefits outweigh the cost of investment by government - every \$1 of land invested by government will generate at least \$2 of benefit.

The ROI only captures the benefits for government from PI and as previously mentioned, does not include other gains that are likely to be significant for residents and their families. Further, some possible cost savings to government have not been monetised as there is insufficient information currently to estimate the size of these cost savings. A survey of PI residents in the future could be useful to fill this gap.

It should be noted that the operation of PI is not solely funded by the government's investment, and includes private contributions in the form of a 10% deposit plus any additional top-up contributions. Thus, part of the government's ROI is the result of private contributions from residents or their families.

Fig. 9: Composition of government ROI under each Scenario



Source: KPMG analysis

Note: Analysis based on central assumptions outlined in Section 3.1

# Closing Summary



## Key findings

The PI alternative housing model provides individuals with an ID access to home ownership, which would be hard for them to otherwise obtain. This is through providing residents with a share in their own unit while at PI, with their contributions towards building equity that can be used as a deposit for a home when they eventually move out of PI.

An initial investment of land valued at \$724,554 by government could generate a substantial ROI. From the government's perspective, comparisons of PI against existing housing options provide at least \$2 of return for every \$1 invested in land.

### ***What is the government return on investment when providing land to Project Independence?***

The government's ROI when providing a representative plot of land to PI, valued at (\$724,554) is estimated at around:

- **Scenario 1: Project Independence v. Living at home : 2.43**
- **Scenario 2: Project Independence v. Public housing: 3.84**
- **Scenario 3: Project independence v. Community housing: 2.43**

The benefits and cost-savings of PI to government relative to other housing options occur when individuals with an ID no longer rely on social housing that requires substantial government funding/support. There are also benefits to government when carers re-engage with the labour force by reducing the need for welfare and increasing carer's tax contributions.

These benefits are further amplified as a result of the transitional effect of PI. In contrast with other housing options, residents in PI are able to transition into home ownership in the private market. This means that the PI model can impact more than one cohort of residents over a site's lifespan of 30 years, further reducing government and carer costs.

It should also be noted that not all direct costs associated with the PI model are borne by the government. For example, residents pay a privately funded 10% deposit on their unit. Thus, the government's ROI is partially driven by private contributions but also include further private benefits not captured, such as the financial gain to residents.

The analysis in this report presents the ROI of PI from the government's perspective. There also additional unquantified societal benefit of PI. These include the potential impact of independence on quality of life, the intrinsic value of home ownership and the desire of carers to ensure the long-term housing security of their loved one.

Further, from the resident's perspective, living in PI allows them to save throughout their tenure by diverting a portion of their contributions towards equity. When leaving PI, residents gain a substantial lump sum amount that can be used to fund their purchase of a future home. As home owners during their occupancy at PI, residents benefit from capital gains on their unit. Under alternative housing options, these capital gains are not available to residents.

As a pathway to home ownership, our findings suggest that investment to PI has the potential to yield a material ROI for government, in addition to wider benefits for residents and their families.

## Limitations

The findings of this report should be interpreted in light of the following limitations:

- The PI model has only been applied relatively recently. Consequently, key inputs of the ROI calculation have been based on assumptions provided by PI, consultation with PI stakeholders and other sources. Sensitivity analyses of these key assumptions are included in Appendix C, which provides an indication of the likely range of results.
- Other potential benefits, such as the impact of independence on residents' quality of life, have not been quantified due to a lack of relevant data and literature. As a step towards building the evidence base for these benefits, exit (and entry) surveys could be employed to better gauge the impact of living at PI on the residents and their families.



# Appendices



## Appendix A: Endnotes

1. A full description of activity limitations is available from ABS (2019).
2. Refer to <https://www.servicesaustralia.gov.au/individuals/services/centrelink/disability-support-pension/how-much-you-can-get/payment-rates>
3. Refer to <https://www.servicesaustralia.gov.au/individuals/services/centrelink/rent-assistance/who-can-get-it/special-rules-if-you-get-disability-support-pension>
4. Refer to <https://www.servicesaustralia.gov.au/individuals/services/centrelink/rent-assistance/how-much-you-can-get>
5. Refer to <https://www.ndis.gov.au/applying-access-ndis/am-i-eligible>
6. Refer to <https://www.ndis.gov.au/participants/using-your-plan/managing-your-plan/support-budgets-your-plan>
7. It should be noted that this is calculated based on housing tenure, which is different to the proportion of people with an ID that are home owners. For example, people with an ID living at home with parents who are owner-occupiers would be considered to be living in an owner-occupied dwelling.
8. This is broadly consistent with data provided by Project Independence which indicates that 60% of residents had been living at home prior to entering the program.
9. Refer to [https://www.communityservices.act.gov.au/hcs/services/social\\_housing/waiting\\_lists](https://www.communityservices.act.gov.au/hcs/services/social_housing/waiting_lists).
10. Refer to [https://www.communityservices.act.gov.au/hcs/services/social\\_housing](https://www.communityservices.act.gov.au/hcs/services/social_housing)
11. Refer to endnote 10.
12. Planning for the future is a sensitive challenge for many parents who have a child with an ID (Walker & Hutchinson, 2019). Taggart et al (2012) found that options considered by parents included keeping people in the family home, with support by other family members or paid staff. This was the preferred option for a majority of parents. Other options included moving in with siblings, or to a disability residential facility or a nursing home.
13. Refer to endnote 9.
14. Numerical example provided by Project Independence.
15. Harrison (2010) provides an extensive discussion on the 'appropriate' discount rate, which varies depending on the investment, the country, and the time frame. For example, a riskier project may warrant the use of a higher discount rate. Due to the uncertainties involved in valuing the future, Harrison (2010) highlights the importance of sensitivity testing, and recommends a central rate of 8%, with testing at 3% and 10%.
16. Refer to endnote 4.
17. This is estimated from AIHW (2020), which reports a total of 10,955 public housing dwellings in the ACT in 2018-19, and a total of 22,093 occupants. Thus, on average, each dwelling is associated with around 2.02 occupants.
18. Under the National Rental Affordability Scheme (NRAS), Commonwealth and state governments co-provide an incentive to eligible housing providers that deliver affordable rental dwellings. The NRAS incentive for 2020-21 is \$11,270.59 per eligible dwelling (Department of Social Services, 2020). Applications for this incentive ended in 2014-15.
19. The comparison between carers NILF and non-carers in part-time employment is likely to be most appropriate. This is because the hours of care provided by an informal carer to a person with mild/moderate disability (not just ID) has been estimated at around 20 hours per week (Deloitte Access Economics, 2020).
20. The applied labour force participation rate is the average of the monthly seasonally adjusted employment to population ratio from July 2019 to June 2020 (ABS, 2020).
21. Refer to <https://www.servicesaustralia.gov.au/individuals/services/centrelink/disability-support-pension/who-can-get-it/non-medical-rules/income-and-assets-tests/income-test-pensions>

## Appendix B: Methodology

- The ROI developed in this report is based on the key modelling assumptions detailed in Section 3.1, and applies the quantification of key benefits and cost-savings in Section 3.3. As shown in Section 3.3, not all benefits and cost-savings have been quantified due to lack of data and supporting evidence.
- Our analysis applies an annual approach in estimating the ROI under each scenario.
- As described previously, three cohorts will benefit from PI. Cohorts are assumed to enter PI in Year 1, Year 11 and Year 21.
- Given the modelling assumptions in Section 3.1, there are 10 residents/alumni of PI in Year 1-10. In Year 11, 75% move out and 25% remain, resulting in 18 individuals as current residents or alumni. Based on the same 75% transition rate in Year 21, there will be 25 alumni and residents in total.
- The number of PI residents and alumni thus increases over time. This reflects the idea that cohorts entering in Year 11 and Year 21 have been diverted from other housing options which would otherwise have incurred costs to Government.
- Government cost savings in land occur in Scenario 3 in Year 11 and Year 21 only as it is assumed that CHPs and PI receive an equivalent plot of land in Year 1.
- Ongoing benefits and cost-savings are calculated annually for their respective durations described in Section 3.3. For example, the cost savings to CRA associated with cohort 1 accumulates over 30 years (lifespan of the project). For cohorts 2 and 3, this accumulates over the remaining 20 and 10 years, respectively.
- Benefits and cost-savings occurring in each year, and for each cohort are summed across cohorts and years. This is divided by the government's investment (\$724,544) to derive the government's ROIs for each scenario.

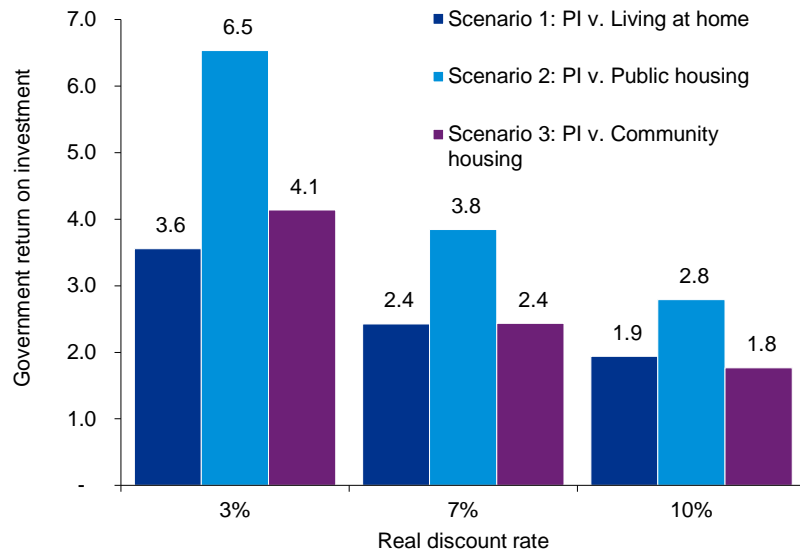
## Appendix C: Sensitivity analysis

We conduct sensitivity analysis of several key assumptions in our report.

### Sensitivity analysis of discount rates

We test the effect of the choice of discount rates on government ROI associated with each scenario, using 3% and 10% real discount rates. Unsurprisingly, the ROI is higher given a lower discount rate, and lower given a higher discount rate.

Fig. 10a: Sensitivity analysis of discount rates



Source: KPMG analysis.

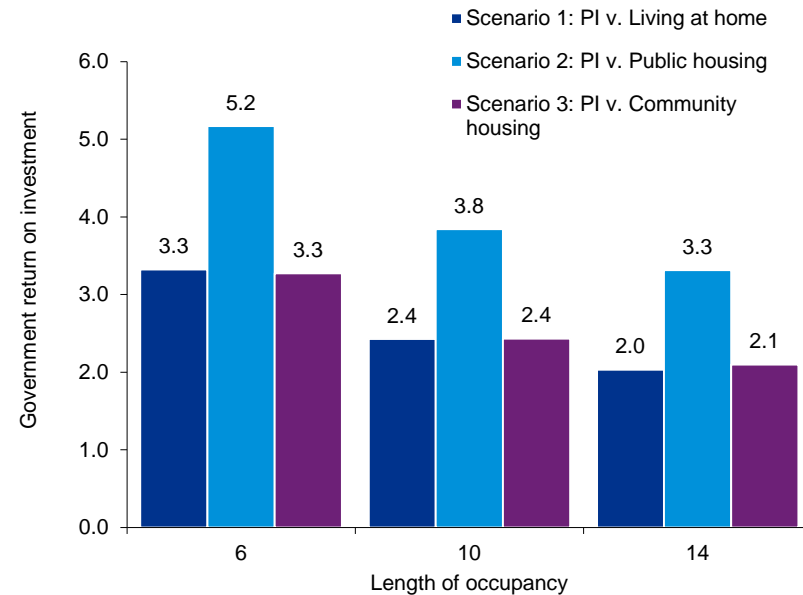
Note: All other assumptions held at central case.

### Sensitivity analysis of occupancy length

As the central case, the average tenure of PI residents is assumed to be 10 years. We test the case where residents stay on average for 6 years, and 14 years respectively. This range of figures have been taken from PI's financial modelling (EY, 2015).

The ROI of PI increases with a shorter length of occupancy. This is because more cohorts are able to benefit from the PI model when the speed of transition is higher, thus resulting in greater benefits and cost savings.

Fig. 10b: Sensitivity analysis of occupancy length



Source: KPMG analysis.

Note: All other assumptions held at central case.

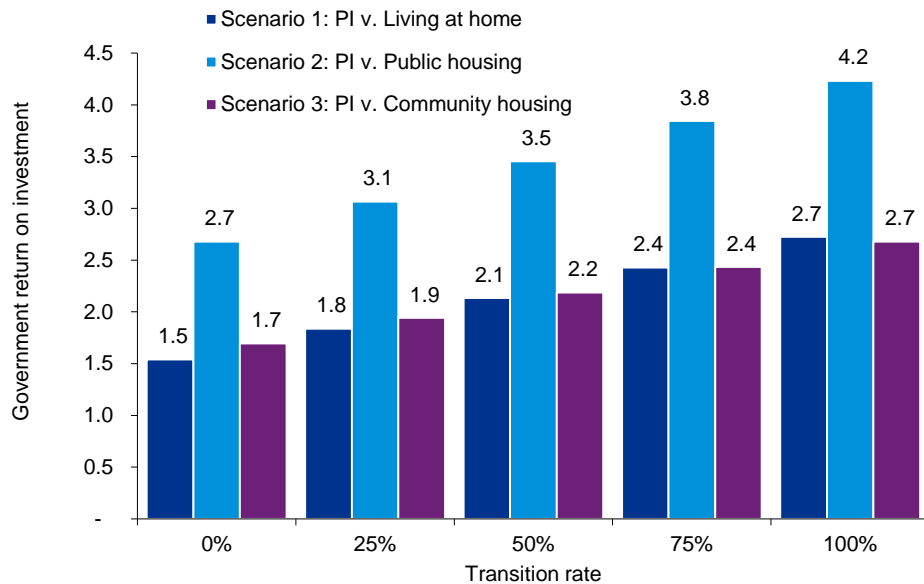
## Sensitivity analysis of transition rate of Project Independence

In the central case, we assumed that the transition rate of PI was 75%. This meant that 75% of residents would choose to transition out of PI at the end of their occupancy.

We test the sensitivity of this assumption, showing the case where residents move out of PI at a rate of 100%, 75%, 50%, 25% and 0%. A transition rate of 0% implies that no residents move out, while a transition rates of 100% means that all residents move out at the end of their occupancy.

As shown in Figure 10c below, the greater the transition rate, the higher the ROI. The reasoning is that more residents moving out of PI will allow a given PI site to benefit more people. To note, the ROI is greater than 1 even in the case where all residents stay on at PI permanently.

Fig. 10c: Sensitivity analysis of transition rate



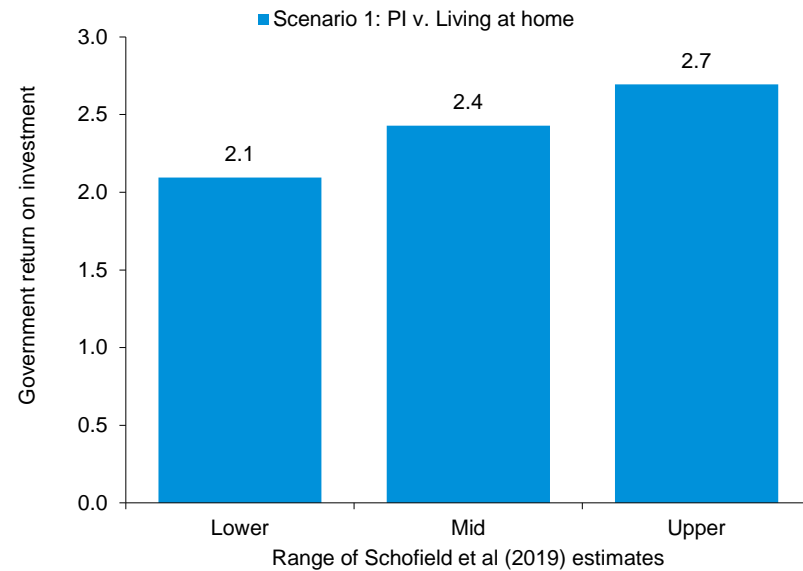
Source: KPMG analysis.  
Note: All other assumptions held at central case.

## Sensitivity analysis of benefits associated with informal care

As discussed previously, a significant component of the ROI in Scenario 1 is driven by benefits associated with informal care. Our estimation of informal care cost-savings is based on the findings of Schofield et al (2019).

We test the sensitivity of Scenario 1 outcomes using reported confidence intervals reported in this study. The ROI under Scenario 2 is likely to range from 2.1 to 2.7.

Fig. 10d: Sensitivity analysis of benefits associated with informal care



Source: KPMG analysis.  
Note: All other assumptions held at central case.

## Appendix D: Literature review

This section provides a brief review of relevant literature examined as part of this analysis. Key evidence have been denoted with a (\*).

Authors	Year	Description
McCausland, D. et al. *	2020	This study (n = 708) in Ireland found that adults with an ID who had higher Instrumental Activities of Daily Living (IADL) functioning were more likely to have better occupational engagement. IADL measures a person's ability to live independently in the community, including cooking, cleaning, transportation, laundry, and finance skills. Controlling for personal and socioeconomic characteristics, the authors found that better IADL performance is associated with a greater likelihood of high occupational activity (OR 3.89, 95% CI: 1.25 – 12.13). Occupational activity is defined as being in paid work, in voluntary work, or in training. A secondary result is that people who lived independently or with family, or in community group homes had higher occupational activity compared to an institutional setting (OR 4.59, 95% CI: 0.89 – 23.55; OR 2.62, 95% CI: 1.04 – 6.65).
Deloitte Access Economics	2020	This report provides a methodology for estimating the value of informal care for persons with varying levels of disability. Application of the methodology in this report shows that the value of informal care for a person with a mild to moderate disability ranged from \$910 per week using the replacement approach, to \$1,173 per week using the opportunity cost approach.
Schofield, D. et al. *	2019	This study estimated the socioeconomic impacts of informal caring due to intellectual disability and Autism Spectrum Disorder (ASD) in Australia using a microsimulation model. The authors estimate that the costs of informal care in 2015 to be around \$310 million in foregone income, \$100 million in foregone taxation, and \$204 million due to higher welfare payments.
Dockery, M. and Bawa, S. *	2019	The authors investigated the health and life satisfaction outcomes of Australian renters and home owners (n = 188,310 – 189,366), measured by SF-36 and the HILDA life satisfaction scale respectively. The authors found that while home owners had better health outcomes, this was due to selection into the home owner group, rather than as a result of causal relationships with owning a home. However, the authors found that owning a home had a causal relationship with life satisfaction. Home owners had a life satisfaction score that was 0.093 – 0.149 points higher than renters.
Sandjojo, J. et al.	2019	Focus groups with people with ID, legal representatives and support workers (n = 37) in the Netherlands proposed that greater independence will lead to: greater self-worth, self-confidence, sense of pride, and better mood. Independence is broadly understood by respondents as knowledge about how to do things, the abilities to perform actions, and taking care of oneself, as well as asking for help.
Strnadová, I	2019	This study was based on semi-structured interviews with 17 older adults (mean age 51) with an ID in New South Wales, Australia. Participants in this study primarily lived in public housing. Bullying in public housing was the most common reason for participants wanting to move. In addition, participants also reported feeling isolated in the community. One participant remarked, "... the biggest thing, I think, for [people with intellectual disabilities] would be being able to live in your own home. That would be the biggest thing. (...) And having a sense of dignity and independence."

Authors	Year	Description
McCarron, M. et al.	2019	This systematic review included 13 studies on the QoL of people with an intellectual disability moving from an institutional setting to a community setting. The former includes hospitals and disability institutions. The authors found that QoL improved 1 year post-move (Standardised Mean Difference 2.03, 95% CI [1.21, 2.85]), and beyond 1 year post-move (SMD 2.34, 95% CI [0.49 – 4.20]). Qualitative studies reviewed highlight factors such as ‘sense of ‘freedom’ and independence living’ and ‘personal space and privacy’ as having a positive impact on QOL.
Chan, W. et al.	2018	This study found that adults in the US with autism spectrum disorders and ID (n = 105) are more likely to sustain their employment if they had, amongst other variables, better independent daily living skills. Persons with at least 10 hours of work in the community at both Time 9 and 10 were defined as sustaining community employment. Daily living skills included housekeeping, personal care, meal preparation and finance management. The study found a positive relationship between daily living skills and sustaining employment (OR 4.10, SE 0.47).
Bigby, C., Bould, E., and Beadle-Brown, J. *	2017	This study compared costs and QoL outcomes for people with an intellectual disability living in group home settings and supported living arrangements, in Australia (n = 29 matched pairs). The authors found that while QoL outcomes did not differ significantly between cohorts, costs were lower for those in supported living arrangements by just over \$68,500 per person per year. The author noted that this supported the argument that people in supported living arrangements have the potential to live more independently, require less support, but still achieve similar or better outcomes.
Wiesel, I et al.	2015	This report for the Australian Housing and Urban Research Institute examined the housing barriers and enablers for people with a disability (not exclusive to ID). The findings of this report were based on interviews with people and stakeholders involved at various stages of the housing process. The authors found that those with an intellectual disability saw improved relationships with parents after becoming independent, due to reduced need for care and informal support. Parents also reported pride and a sense of relief concerning their children’s future. People who do not have private income or have support from family may not be able to afford initial capital investment and ongoing costs of home ownership. People also had difficulty accessing finance either as a direct consequence of their disability (if intellectual), or indirectly from a lack of financial records (e.g. no history of savings).
Kozma, A., Mansell, J. and Beadle-Brown, J.	2009	In this systematic review, the authors compared various outcomes between residential settings, including in institutions. Review finds that community-based services generally perform better than institution settings. The former includes group homes and supported living. Residential settings have often defined in the literature by the number of residents, rather than their specific functional characteristics. The review finds that community-based services perform better in terms: Community presence and participation; Social networks and friendships; Family contact; Self-determination/choice; Quality of life; Adaptive behaviour; User and Family Views and Satisfaction. The review finds that community settings perform no better in improving challenging behaviour, use of psychotropic medication, and mortality.

Authors	Year	Description
Lachapelle, Y. et al.	2005	This study examined adults with a mild ID in Canada, United States, France, and Belgium (n=182) living in community settings. The authors found that Self Determination (SD), as measured by The Arc's Self Determination Scale, was a significant predictor of QoL (measured by QOL-Q). High self-determination is a significant determinant for membership in the high quality of life group.
Young, L.	2006	This study compares outcomes of groups of people who entered community housing and cluster housing from an institutional setting in Australia. The cohort consisted of 30 matched pairs of adults with moderate and severe IDs. The study found that people in community group had better development of domestic skills (cleaning, laundry, food skills etc.) and better prevocational/vocational activity (e.g. staying on task, caring for equipment). This study was reviewed by Kozma, Mansell and Beadle-Brown (2009).
Stancliffe, R.J. and Keane, S. *	2000	<p>The authors compared outcomes and costs of people with an intellectual disability living in group homes or semi-independently in Australia. Those living in a semi-independently performed significantly better in 5 areas out of the 29 (no significant difference in other areas) assessed:</p> <ul style="list-style-type: none"> <li>• Lower levels of social dissatisfaction (e.g. availability of friends and people to talk to)</li> <li>• Higher levels of empowerment (measured by QoL-Q Empowerment)</li> <li>• Higher frequency of using community facilities (e.g. retail shops, recreational facilities, etc.)</li> <li>• Used more community facilities without staff support</li> <li>• Higher participation in domestic tasks (e.g. cooking, cleaning, etc.)</li> </ul> <p>The authors also found that those in a semi-independent setting used fewer hours of paid staff support, and consequently had lower costs. On average, those in semi-independent settings incurred a cost of \$14,602 (Range: \$5,268 - \$44,371, SD: \$8,531) versus \$64,105 for those in group homes (Range \$21,488 - \$123,251, SD: \$33,301). This study was reviewed by Kozma, Mansell and Beadle-Brown (2009).</p>



## Appendix E: Bibliography

- Australian Bureau of Statistics (ABS) (2020). *Labour Force, Australia*. cat.no. 6202.0.  
<https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release>
- Australian Bureau of Statistics (ABS) (2019). *Disability Ageing and Carers, Australia: Summary of Findings, 2018*. cat.no. 4430.0.  
<https://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/4430.0Glossary12018?opendocument&tabname=Notes&prodno=4430.0&issue=2018&num=&view=>
- Australian Bureau of Statistics (ABS) (2018). *National Health Survey 2017-18*. Findings based on use of ABS Basic CURF Microdata.
- Australian Bureau of Statistics (ABS) (2012). *Intellectual Disability, Australia, 2012*. cat. no. 4433.0.55.003.  
<https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4433.0.55.003?OpenDocument>
- ACT Government, (2019). *2018-19 Annual Report: Community Services Directorate*.
- Affordable Housing Working Group (AHWG) (2017). *Supporting the implementation of an affordable housing bond aggregator*. Council on Federal Financial Relations. <https://cdn.treasury.gov.au/uploads/sites/1/2017/09/170921-AHWG-final-for-publication.pdf>
- Aitken, Z., Baker, E., Badland, H., Mason, K., Bentley, R., Beer, A. and Kavanagh, A.M., (2019). Precariously placed: housing affordability, quality and satisfaction of Australians with disabilities. *Disability & Society*, 34(1), pp.121-142.
- Australian Housing and Urban Research Institute (AHURI), (2019). *Understanding the funding gap for social housing and different ways to fund it*. AHURI Brief.  
<https://www.ahuri.edu.au/research/ahuri-briefs/understanding-the-funding-gap-for-social-housing-and-different-ways-to-fund-it>
- Australian Institute of Health and Welfare (AIHW) (2020). Social housing dwellings: Supplementary data tables. *Housing assistance in Australia 2020*.
- Anglicare, (2020). Affordability in ACT and Queanbeyan. *Rental Affordability Snapshot 2020*.  
<https://www.anglicare.com.au/wp-content/uploads/2020/04/RAS-2020-ACT-Queanbeyan.pdf>
- Bittles, A.H., Petterson, B.A., Sullivan, S.G., Hussain, R., Glasson, E.J. and Montgomery, P.D., (2002). The influence of intellectual disability on life expectancy. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 57(7), pp.M470-M472.
- Bigby, C., Bould, E. and Beadle-Brown, J., (2018). Comparing costs and outcomes of supported living with group homes in Australia. *Journal of Intellectual & Developmental Disability*, 43(3), pp.295-307.
- Burdon, D. (2019). *ACT public housing construction costs rise 30 per cent in three years*. The Canberra Times.  
<https://www.canberratimes.com.au/story/5993649/act-public-housing-construction-costs-rise-30-per-cent-in-three-years/>
- Chan, W., Smith, L. E., Hong, J., Greenberg, J. S., Lounds Taylor, J., & Mailick, M. R. (2018). Factors associated with sustained community employment among adults with autism and co-occurring intellectual disability. *Autism*, 22(7), 794-803.
- Commonwealth of Australia, (2008). Chapter 2 – Social aspects of home ownership. *A good house is hard to find: Housing affordability in Australia*.  
[https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Former\\_Committees/hsaf/report/index](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Former_Committees/hsaf/report/index)
- Department of Social Services, (2020). *National Rental Affordability Scheme (NRAS)*. [https://www.dss.gov.au/sites/default/files/documents/03\\_2020/nras-incentive-indexation-2020-21-information-sheet\\_0.pdf](https://www.dss.gov.au/sites/default/files/documents/03_2020/nras-incentive-indexation-2020-21-information-sheet_0.pdf)

- Deloitte Access Economics, (2020). The value of informal care in 2020.  
<https://www2.deloitte.com/au/en/pages/economics/articles/value-of-informal-care-2020.html>
- Dockery, M., & Bawa, S. (2019). Why do home-owners do better?. *In State of Australian Cities*.
- Edemekong, P.F., Bomgaars, D.L., Sukumaran, S., & Shoshana, B.L. (2020, June 26). *Activities of Daily Living (ADLs)*. National Center for Biotechnology Information. <https://www.ncbi.nlm.nih.gov/books/NBK470404/>
- EY, (2015). *Project Independence Ltd Briefing Pack*.
- Gooding, P, (2017). *The forgotten 660,000 locked out of home ownership*. The Conversation.  
<https://theconversation.com/the-forgotten-660-000-locked-out-of-home-ownership-74926>
- Harrison, M., (2010). *Valuing the Future: the social discount rate in cost-benefit analysis*, Visiting Researcher Paper, Productivity Commission, Canberra.
- Hawthorne, G., Richardson, J. and Osborne, R., (1999). The Assessment of Quality of Life (AQoL) instrument: a psychometric measure of health-related quality of life. *Quality of Life Research*, 8(3), pp.209-224.
- Huang, L., Frijters, P., Dalziel, K., & Clarke, P. (2018). Life satisfaction, QALYs, and the monetary value of health. *Social Science & Medicine*, 211, 131-136.
- Kozma, A., Mansell, J., & Beadle-Brown, J. (2009). Outcomes in different residential settings for people with intellectual disability: A systematic review. *American journal on intellectual and developmental disabilities*, 114(3), 193-222.
- Lawson, J., Pawson, H., Troy, L., van der Nouwelant, R. & Hamilton, C. (2018). *Social housing as infrastructure: an investment pathway*, AHURI Final Report 306. Australian Housing and Urban Research Institute Limited, Melbourne. <http://www.ahuri.edu.au/research/final-reports/306>, doi:10.18408/ahuri-5314301
- Lachapelle Y, Wehmeyer ML, Haelewyck MC, Courbois Y, Keith KD, Schalock R, Verdugo MA, Walsh PN, (2005). The relationship between quality of life and self-determination: an international study. *Journal of intellectual disability research*. 2005 Oct;49(10):740-4.
- McCallum, S. M., Batterham, P. J., CEAR, A. L., Sunderland, M., & Carragher, N. (2019). Reductions in quality of life and increased economic burden associated with mental disorders in an Australian adult sample. *Australian Health Review*, 43(6), 644-652.
- McCarron, M., Lombard-Vance, R., Murphy, E., May, P., Webb, N., Sheaf, G., McCallion, P., Stancliffe, R., Normand, C., Smith, V. and O'Donovan, M.A., (2019). Effect of deinstitutionalisation on quality of life for adults with intellectual disabilities: a systematic review. *BMJ open*, 9(4), p.e025735.
- McCausland, D., McCallion, P., Brennan, D., & McCarron, M. (2020). In pursuit of meaningful occupation: Employment and occupational outcomes for older Irish adults with an intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, 33(3), 386-397.
- National Disability Insurance Scheme (NDIS), (2020a). *Participant numbers and plan budgets data March 2020*. <https://data.ndis.gov.au/data-downloads>
- National Disability Insurance Scheme (NDIS), (2020b). *Supported Independent Living Operational Guideline*.  
<https://ourguidelines.ndis.gov.au/media/1514/download>
- National Disability Insurance Scheme (NDIS), (2018). *Specialist Disability Accommodation: Provider and Investor Brief*.  
<https://blcw.dss.gov.au/media/1099/ndia-specialist-disability-provider-update.pdf>
- Office of Best Practice Regulation, (2020). *Cost-benefit analysis*. Department of the Prime Minister and Cabinet.  
[https://www.pmc.gov.au/sites/default/files/publications/cost-benefit-analysis\\_0.pdf](https://www.pmc.gov.au/sites/default/files/publications/cost-benefit-analysis_0.pdf)

- Productivity Commission, (2020). *Housing and homelessness*. Report on government services 2020.
- Schofield, D., Zeppel, M. J., Tanton, R., Veerman, J. L., Kelly, S. J., Passey, M. E., & Shrestha, R. N. (2019). Intellectual disability and autism: socioeconomic impacts of informal caring, projected to 2030. *The British Journal of Psychiatry*, 215(5), 654-660.
- Sandjojo, J., Gebhardt, W.A., Zedlitz, A.M., Hoekman, J., den Haan, J.A. and Evers, A.W., (2019). Promoting Independence of People with Intellectual Disabilities: A Focus Group Study Perspectives from People with Intellectual Disabilities, Legal Representatives, and Support Staff. *Journal of Policy and Practice in Intellectual Disabilities*, 16(1), pp.37-52.
- Simões, C., & Santos, S. (2016). Comparing the quality of life of adults with and without intellectual disability. *Journal of Intellectual Disability Research*, 60(4), 378-388.
- Stancliffe, R. J., & Keane, S. (2000). Outcomes and costs of community living: A matched comparison of group homes and semi-independent living. *Journal of Intellectual and Developmental Disability*, 25(4), 281-305.
- Strnadová, I., 2019. Transitions in the Lives of older adults with intellectual disabilities: "Having a sense of dignity and independence". *Journal of Policy and Practice in Intellectual Disabilities*, 16(1), pp.58-66.
- Taggart, L., Truesdale-Kennedy, M., Ryan, A. and McConkey, R., (2012). Examining the support needs of ageing family carers in developing future plans for a relative with an intellectual disability. *Journal of Intellectual Disabilities*, 16(3), pp.217-234.
- Walker, R. and Hutchinson, C., (2019). Care-giving dynamics and futures planning among ageing parents of adult offspring with intellectual disability. *Ageing and Society*, 39(7), pp.1512-1527.
- Wiesel, I., Laragy, C., Gendera, S., Fisher, K.R., Jenkinson, S., Hill, T., Finch, K., Shaw, W. and Bridge, C., (2015). Moving to my home: housing aspirations, transitions and outcomes of people with disability. *AHURI Final Report*, 246.
- Young, L., (2006). Community and cluster centre residential services for adults with intellectual disability: long-term results from an Australian-matched sample. *Journal of Intellectual Disability Research*, 50(6), pp.419-431.