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Victoria

EXTENDING OUT OF HOME CARE TO 21 YEARS
SUMMARY OF THE AUSTRALIAN SOCIOECONOMIC COST BENEFIT ANALYSIS

An accompanying document of the Socioeconomic Cost Benefit Analysis by Deloitte Access Economics

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BETTER TOMORROWS

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Glossary

ABS	Australian Bureau of Statistics
AB12	Assembly Bill 12
AHURI	Australian Housing and Urban Research Institute Limited
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
AOD	alcohol and other drugs
ASFA	*Adoption and Safe Families Act*
AWOTE	average weekly ordinary time earnings
CAS	Children's Aid Societies
CCSY	Continued Care and Support for Youth agreement
CPI	consumer price index
CSO	Community Service Organisation
DAE	Deloitte Access Economics
DALY	disability adjusted life years
NCVER	National Centre for Vocational Education Research
NPV	net present value
NSW	New South Wales
OOHC	Out of home care
UK	United Kingdom
USA	United States of America
VET	Vocational Education and Training

1 Introduction

1.1 Leaving care in Australia and the case for extending care

While parents have the primary responsibility for raising their children and providing support, the *National Framework for Protecting Australia's Children 2009-2020*[1] notes that where the home environment is not safe enough for children, children are to be placed in the care of the state; in out-of-home care (OOHC). OOHC involves the placement of a child or young person with alternate caregivers who have legal custody of the child until the 18 years of age[2].

OOHC can be arranged either formally or informally. Informal care refers to arrangements made without intervention by statutory authorities or courts, and formal care occurs following a child protection intervention (either by voluntary agreement or a care and protection court order)[3]. The majority of children placed in OOHC are subject to child protection intervention[4].

In Australia, state and territory governments have a statutory responsibility for ensuring children are protected from harm caused by abuse and neglect. In Victoria, this responsibility is exercised by the Department of Health and Human Services (the Department). A key function of the Department's child protection role is providing OOHC to children and adolescents in need. For the vast majority of children, OOHC is provided either through a kinship care or foster care model. The latest figures from the Australian Institute of Health and Welfare (AIHW) reports that at 30 June 2014 there were 7,710 children in OOHC (both residential and non-residential) in Victoria and 43,009 children in OOHC across Australia.

A vast body of literature documents the multitude of inter-related, relatively poor life outcomes experienced by an inordinately high proportion of care leavers. The relative disadvantage experienced by this group spans from a number of confluent factors including a history of abuse or neglect, ongoing poor health, ongoing poor mental health, substance abuse, homelessness, poverty, unemployment and violence[5]. Traditional support structures – family, friendship circles and community – are more likely to be broken for this cohort, limiting the social support individuals can leverage to break the cycle of disadvantage which, if left unaddressed, has the potential to span several generations.

The disparities in care-pathways between children in OOHC and those resident in traditional care structures is poignantly highlighted in the abrupt and instituted end of formal state care at the age of 16-18 years. The state, as the effective parent, ceases to provide ongoing financial, social and emotional support as a care-giver. Indeed, where operational, current care leaving programs that seek to equip

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[1] Council of Australian Governments (2009)
[2] Council of Australian Governments (2009)
[3] Australian Institute of Health and Welfare (2015
[4] Australian Institute of Health and Welfare (2015)
[5] See for example: Mendes, Johnson, Moslehuddin, (2011) Osborn, & Bromfield, (2007)

individuals for the exit from care at the age of 18 commence at the age of 15[6]. For this reason, for a young person in OOHC, the process of leaving care has commenced well before adulthood. A review of Australian research, including a report by the Victorian Ombudsman, found evidence that some young people had little or no preparation for leaving care, and no leaving-care plan[7].

By contrast, young people in the general population are now more likely to continue to live with their parents well into their mid-20s, entering and exiting the family home several times as they pursue various personal development opportunities. Driven by the increasing uptake of post-schooling education, delayed marriage, the rising cost of housing and the increasing accessibility of travel, at present, almost 50% of people aged between 18 and 24 are still living with one or both parents[8].

While parents are increasingly providing support for their children well into their twenties, there are few supports available through governments to assist the young people for whom the State has assumed guardianship to make their transition to independent adulthood beyond the age of 18. The few disparate supports which *are* available to this population are broadly considered to be insufficient to substitute for the more holistic, flexible model of care provided to young adults in the general population[9]. Further, fragmentation between these currently available supports sees a number of young people move straight from the child protection system directly to welfare, the justice system or into homelessness supports[10].

There have been a number of calls to consider the extension of care, including in the findings of the Victorian 2012 Vulnerable Children's Inquiry[11]. However, such reform is yet to be either trialled or instituted comprehensively in any jurisdiction in Australia. Given the growing evidence reporting on poorer outcomes experienced by young people leaving care at age 18 years compared with those aged 21 years, it is timely and topical to re-open the discussion of extending care.

1.2   International context

There are a number of international jurisdictions that have implemented policies and programs to extend care for young people aged 18 years and older. The types of care provided differ between each jurisdiction in terms of the care provided and the eligibility requirements for accessing this care. Outcomes for young people participating in such programs have been investigated across a number of studies and evaluations. These studies have reported that extended care supports:

- a higher level of engagement with **education** and improved **employment prospects**[12];
- improved **housing stability** and lower long-term reliance on public housing programs[13];
- improved **physical and mental health outcomes** driven by improved access to care and early intervention[14];

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[6] Department of Human Services (2012)
[7] Mendes et al (2011).
[8] ABS 'Australian Social Trends' 4102.0, June (2009)
[9] Mendes et al (2011)
[10] Mendes et al (2012).
[11] Cummins et al (2012).
[12] Courtney, M. (2015)
[13] Munro et al (2010)
[14] Courtney et al (2007); O'Connell, Boat, & Warner (2009)

- reduced incidence of **alcohol and drug dependency**[15];
- reduced interaction with the **justice system** including a reduced likelihood of incarceration[16]; and,
- improved levels of **civic participation and social integration**

The findings in these international studies described below are aligned with findings in Australian literature, which considers the value of investing in youth as they navigate the pivotal developmental phase into adulthood between 16 and 24. As the AIHW (2011) reports, "tackling health and wellbeing issues when they occur in adolescence is socially and economically more effective than dealing with enduring problems in adulthood"[17].

1.2.1   United Kingdom

The United Kingdom (UK) has extended care provisions intended to model the role of a parent. These assist youth in care until they are 21 or 24 where the young person is in school or training. The *Children and Families Act 2014* legislates a duty for local authorities in the UK to support a 'Staying Put' arrangement, which is a voluntary, opt-in model whereby a young person, when they reach 18 years of age, makes an agreement with their foster carer to remain living with that person up to the age of 21 years[18].

To be eligible for entering into a 'Staying Put' arrangement, a young person must[19]:
- be looked after by a local authority (in partnership with their foster carer);
- be aged 16 or 17 years of age; and
- have been in foster care a total of at least 13 weeks since the age of 14 years.

In 2015, figures released by the UK Department for Education found that a quarter of young people (1,370 of 5,490) in foster care who turned 18 since the 'Staying Put' legislation was introduced remained with their foster carers[20]. It was suggested this uptake rate may have been lower than if less stringent entry criteria were adopted and/or more adequate funding had been provided to local authorities to support foster carers[21].

An evaluation of the pilot of the 'Staying Put: 18+ Family Placement Programme' for young people remaining in extended care, interviewed 32 young people at the age of 19, of which 21 had 'stayed put'. The paper looked at outcomes in education, employment and training, and housing.

- **Education/employment:**
  - It was found that 55% of those who had stayed put were enrolled in full-time education, compared to 22% of those who had exited care. Additionally, 25% of young people who had 'stayed put' were engaged in full time training and employment, in contrast to 22% of those who had left care.

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[15] Courtney et al (2007).
[16] Washington State Institute for Public Policy. (2010)
[17] Australian Institute of Health and Welfare (2011)
18 The Children's Partnership 2015.
19 The Children's Partnership 2015
20 Children and Young People Now 2015.
21 Children and Young People Now 2015.

- **Housing:**
  - Across the sample, 41% of young people had taken a direct housing pathway, which involved moving straight from care to stable independent living in council or privately rented property. Of these individuals, 67% were those who had 'stayed put'.

1.2.2   United States of America, California

In the United States of America (USA), each state is responsible for establishing specific foster care practices and managing individual cases. However, the federal government strongly influences state child welfare policies through funding statutes, such as *Adoption and Safe Families Act (ASFA)* *1997* which is the primary law controlling placements in the foster care system[22]. Federal funding accounts for about half of the funding spent on child welfare in the United States, although the portion received by each state differs significantly.

California was one of the first states to extend care and receive financial incentives under the *Fostering Connections Act*. In 2010, California passed Assembly Bill 12 (AB12) to optionally extended foster care to the age of 21 years, and provides assistance for housing, healthcare, food and support programs[23]. To be eligible for this support, a young person must be living in an approved placement on their 18th birthday, have a signed mutual agreement with a case worker, and be:

- attending high school,
- enrolled in a college or vocational program,
- employed at least 80 hours a month, or
- participating in a program aimed at gaining employment, or unable to work/attend school because of a medical condition.

Qualitative research was undertaken between 2011 and 2012 on the implementation of the AB12. When asked about the capacity to implement extended care as envisioned in the AB12, one welfare agency suggested that the uptake rate to receive support had been higher than anticipated (no quantitative figure was provided as part of this research)[24].

Following the introduction of AB12 in 2010, a longitudinal study (CalYOUTH) was started in 2012, to evaluate the impact of the legislation extending care to the age of 21 on outcomes for foster youth. The study will have data collection waves between 2012 and 2017 in order to analyse the foster youth outcomes resultant of the legislation. As such, relevant further and more comprehensive research and analysis is expected to be available by 2018[25].

However, a study evaluating youth in extended care in San Bernardino, California, analysed their educational and employment outcomes[26].

- **Education**
  - Among the sample of 426 youth, aged 18 to 22, 66.4% had completed Year 12 or equivalent and 50.5% were engaged in college or vocational training at the time. It is to

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22 Atkinson, Melinda 2008.
23 Mosely and Courtney 2012.
24 Courtney, M. E., Dworsky, A., & Napolitano, L. (2013).
25 Courtney, M. E., Charles, P., Okpych, N. J., Napolitano, L. & Halsted, K. (2015).
26 Netzel, K. S. & Tardanico, M. B. (2014).

be noted that the duration of being in extended care was found to be a statistically significant positive factor in educational outcomes, with 68.4% of youth not attending college or participating in vocational training during the first 6 months of their stay. By contrast, after two or more years in care, 85.7% were then attending college or vocational training.

- **Employment**
    - Across the sample, 19.7% were working 80 hours or more per month. This figure increased to 31.0% for those who had been in extended care for two or more years. Overall, duration in care was found to have a statistically significant positive effect on employment outcomes for youth in care.

Furthermore, focus groups in California with 39 youth in care, all of whom were aged 18, found favourable impressions of the extended care arrangements, on a qualitative basis[27]. The majority of the youth who were interviewed commented that the education, employment and training criterion attached to the option of remaining in care was beneficial for their future prospects, and that this would likely reduce rates of alcohol and drug dependence, and crime, as there would be less time to engage in such activity outside of work or education.

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[27] Courtney, M. E., Dworsky, A., & Napolitano, L. (2013).

2 Cost benefit modelling assumptions to extending care

The objective of the current study is to consider the potential benefits that could flow – both to the individual and to the public – from introducing a program of support for Victorian children in all forms of OOHC that gives them the option to extend such care from the age of 18 to the age of 21.

Noting that no extended care program has been operational or studied in an Australian context on an ongoing basis, the paper draws upon international research to determine the marginal impact of providing extended care to young people in OOHC across several life domains. Specifically, our model considers the economic impacts of improved access to education and, relatedly, employment; improved housing stability; reduced interaction with the justice system; improved access to healthcare; and, reduced incidence of alcohol and/or drug dependence. Outcomes in each of these life domains were considered in the modelling on the basis that studies had reported that extended support impacted upon them. It is important to note that economic impacts consider the opportunity cost of expended resources.

In summary, the model is constructed to allow for the following:

- The user inputs a number of assumptions including:
    - the annual cost of the program;
    - program uptake rate if the program were offered;
    - the probability of outcomes occurring in each of the life domains with and without extended care;
    - the annual cost (for example welfare cost) or benefit (for example, income) associated with each outcome;
    - the nominal growth rate for costs/benefits over time; and,
    - the discount rate.
- Using these inputs, the model calculates the *expected* lifetime stream of costs/benefits over a 40 year period. The expected value is calculated by multiplying the monetary value of an outcome by the probability that the outcome will occur.
- Each of the cost/benefit streams are returned to present value utilising the discount rate.
- The benefit to cost ratio is calculated by dividing the difference in costs between offering the program and not offering the program by the difference in benefits. The benefit to cost ratio can be interpreted as the expected dollar of value returned per dollar invested in the program.

Central to the calculation of model outputs is the assumed program uptake rate. This study assumes an uptake rate of 25% in line with the uptake of the 'Staying Put' program in the UK. It is assumed that the program will be made available to all children in OOHC irrespective of whether they are in residential or non-residential care at age 18. It is assumed that individuals who enter the program remain engaged in the program for the full three years (from 18 to 21). Recognising that there is some likely level of attrition, the sensitivity analysis relaxes the assumption of 100% program completion.

Other key assumptions draw upon findings from literature to quantify the direction and magnitude of potential impact from introducing an extended care model similar to those introduced and studied overseas. For example:

- **Education and employment.** Extended support can provide financial and personal support to encourage a higher level of engagement with education. A study in the UK reported that engagement in education more than doubled within a sample of individuals participating in the 'Staying Put' program. Related to this, education is linked in literature to improved employment outcomes including a higher probability of employment and higher lifetime earnings.
    - The model assumes that for every 100 young people aged 18 in OOHC who complete the program, nine will enter and complete post-schooling education, compared with 3.6 for 100 people who do not have extended support. Though this may appear low, this represents an improvement in education outcomes by a factor of 2.5.
    - Completing post-schooling education is assumed to relate to expected annual wage that is $14,525 higher than for individuals who do not complete education.
    - Further, the model assumes that completing education reduces the probability of becoming unemployed by 39%.

- **Homelessness and housing**. Extending care to 21 has been found to prevent homelessness among foster care leavers leaving home at 18. [36] It is theorised that this effect is driven in part by the increased preparedness for adulthood that an extra three years in care brings to the child.[37]
    - The model assumes that for every 100 young people aged 18 in OOHC who complete the program 20 fewer people will remain reliant on modelled housing support costs than if they had not entered the program.

- **Justice.** Studies reported that justice system interaction for individuals leaving care aged 21 was lower than for individuals who left care aged 18. It has been hypothesised that extended care to former foster youth during the transition to adulthood may help reduce the risk of arrest, by maintaining the individual's tie to a social institution in the form of continued involvement in programs and/or relationships with agents of the child welfare system.[38]
    - The model assumes that for every 100 young people aged 18 in OOHC who complete the program, 10 will engage with the justice system in any given year compared with 16 if they did not receive extended support.

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[36] It may be possible that this protective effect extends beyond 21, but was not captured in the Midwest Evaluation due to both recall and selection bias in their data collection surveys.
[37] Dworsky & Courtney, (2010a).
[38] Lee, Courtney & Tajima. (2014)

3 Methodology

The model is designed to quantify the net benefits of offering children in OOHC the option to extend support to the age of 21 compared against the current context where this support is not available. As such, the model compares two scenarios – one in which the program is offered on a voluntary basis, and one in which the program is not offered (base case).

Figure 3.1: Model structure, program versus base case
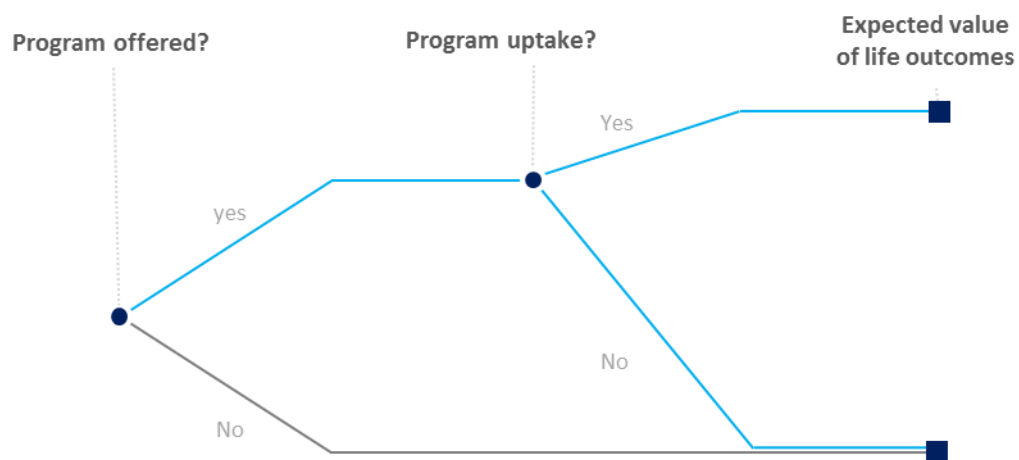
Outcomes differ on the basis of whether an individual participates in the program or does not participate in the program. The model allows for the estimation of monetary outcomes (costs/savings) across five life domains: education and employment; housing; hospital spending; interaction with the justice system; and, alcohol and drug dependency. The probability of experiencing benefits (e.g. a higher wage) or avoiding costs (e.g. reduced justice system costs) is dependent upon program participation (Figure 2.2).

It is assumed that the individuals who *choose* not take up the program have the same outcomes as individuals who were never offered the program in the first place.

Figure 3.2: Model structure
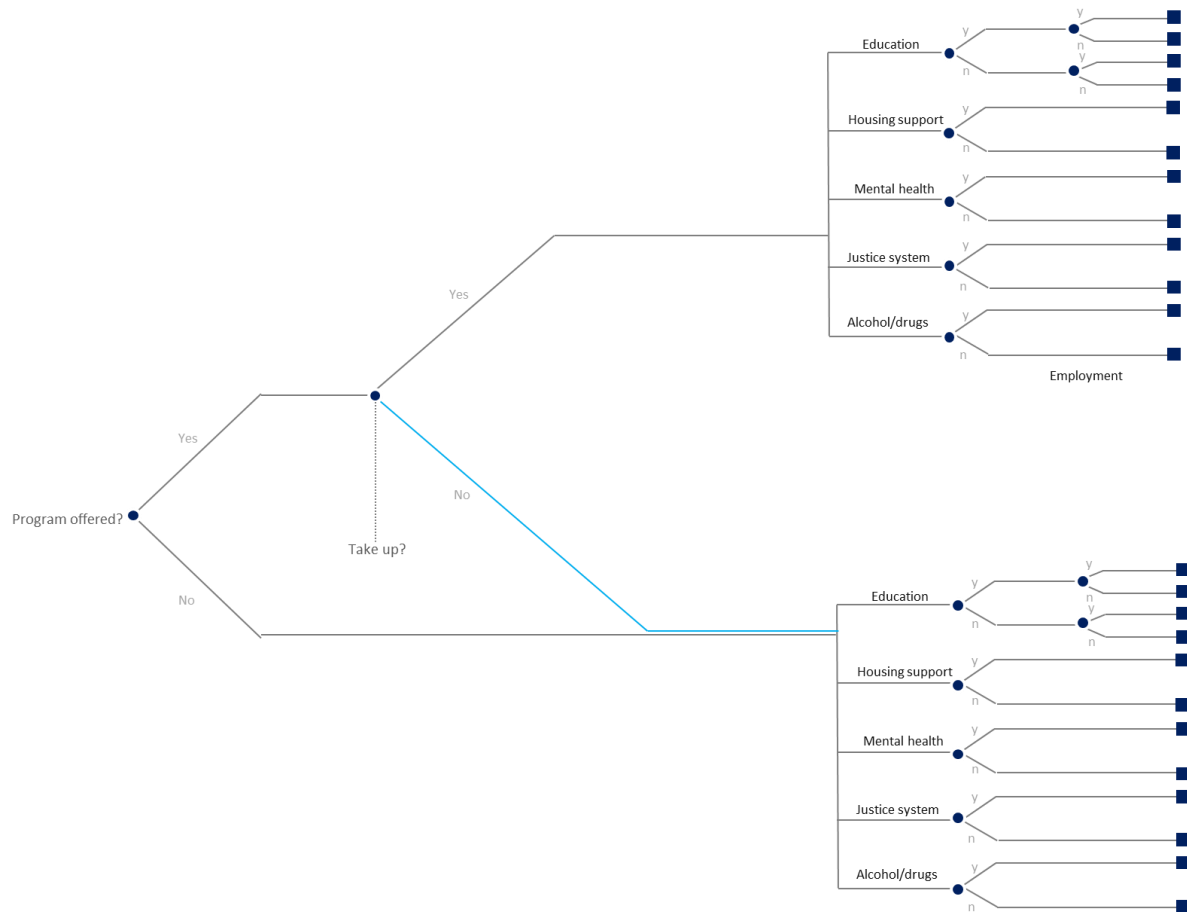
The model takes a forty year perspective of an individual's life. This longer term perspective is justified on the basis that investments made in youth are likely to materialise over a longer term basis (with a lag). It is assumed that individuals are a part of the program for a three year period. This means that to unlock the benefits associated with extended care over the young person's lifetime, there is an upfront public funding cost.

The main model inputs are the probabilities associated with each arm, and the annualised value in 2015 dollars of each outcome. The user must also input any costs associated with a particular pathway, such as the cost of education. Using these key inputs, the model calculates the expected value of each arm.

> Expected value weights the value of possible outcomes by the probability that they will occur. For example, a 50% chance of the present value of $100 in savings is equivalent to 0.5*100= $50.

A benefit-to-cost ratio is calculated by comparing the relative present value of costs and benefits for the scenario where a program is offered against a scenario where the program is not offered. The benefit-to-cost ratio provides a measure of the level of return that can be expected for every dollar invested in a program.

Comparing the value of outcomes under the scenario where the program is offered against the value of outcomes where the program is not offered, the model calculates the maximum public spend which would, in present value terms, equalise program funding and long-term program benefits. That is, the model estimates the per child spend that would leave public expenditure neutral in present value terms.

> Present value is the total of a stream of outcomes that occur over time and is expressed in terms of the value of a dollar today ($2015). It is calculated to account for the fact that the value of money which is expended or saved in the future is not equivalent to the value of that same amount if it were realised today. To calculate the present value of outcomes, this study employs a discount rate of 7%[39]. Costs are inflated annually over time using a consumer price index (CPI) rate of 2.5%, except for wage and welfare costs which are inflated by average weekly ordinary time earnings (AWOTE) growth of 2.1% per annum, housing costs which are inflated by 2.25% per annum based on the national housing group within the CPI, and health costs which are inflated by 5.26% based on the health group within the CPI[40].

3.1   Estimating model inputs

Model inputs were estimated using a series of assumptions informed by available literature.

The base case was developed drawing upon research conducted, where possible in Australia, studying outcomes for care leavers. Where this research was not available, outcomes were estimated by considering outcomes for care leavers aged 18 in the UK or USA.

Outcomes for care leavers aged 21 were estimated by drawing upon research from jurisdictions in which comparable programs are currently available (see Chapter 3). Studies which compared a 21 year old leaver population to an 18 year old leaver population were considered first. The differential between the populations was applied to the Australian base case to maximise relevance to the Australian policy setting.

It is important to ensure that the children in the program group have similar demographic and other characteristics to those who opt out or, if not, in linking outcomes to each group, confounding factors such as differences in initial socioeconomic or health state are controlled to the extent possible. This is also important in the sources studies in the literature from which the outcome effect sizes are based, as well as ensuring that the target population in Australia is a similar population to that in the source studies. We have done this as far as possible, noting that in some cases the target group in the literature was children in one form of OOHC (e.g. foster care), rather than all forms, and that there were also other factors in some cases where full matching or control was not known or not possible due to data limitations. Apart from such model input limitations, there are other model limitations noted in the next section.

A detailed description of modelling inputs and their sources is provided in Chapter 3.

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[39] Harrison, M (2010)
[40] Australian Government: Commonwealth Superannuation Corporation. (2015).

3.2 Model limitations and interpretation

As is the case with most all socio-economic modelling exercises, the model presented in this paper presents a stylised representation of reality. The interaction between child protection and adult outcomes *is* complex and individualised. There is not a set path that individuals will pursue based upon decisions made as a teenager. The model, however, necessarily makes this simplifying assumption.

The model considers outcomes within five life domains. In reality, the impact of extended child protection is likely to span many more life domains and result in a far broader range of tangible and non-tangible outcomes. For example, the model considers outcomes relating to mental health but does not consider impacts relating to health more broadly. Literature finds, however, that support in earlier years can impact upon lifestyle choices which impact propensity to develop chronic health conditions.[41] Such chronic health conditions will have financial health system impacts and will further impact the individual's quality of life. It is important that such impacts are considered *qualitatively* alongside the quantitative outputs of the model.

Further, the model assumes that the five life domains that are considered are independent, that is, they do not interact with one another. This assumption is unlikely to hold in reality. For example, the propensity to develop an alcohol or drug dependency is strongly related to employment outcomes. Alcohol and drug dependency is also likely to make an individual more likely to commit crime. For tractability and due to data limitations, these interactions are not explicitly modelled; however, they should be considered in the interpretation of modelling results.

The modelled results are not an immutable description of future outcomes. Rather, they are a construct, derived from the best available evidence, to allow decision makers to weigh a representation of the lifetime benefits of extended care against immediate program costs. The modelled results must be considered with reference to the nature of underlying assumptions. Further, they are best considered alongside a qualitative discussion of outcomes that are not captured by the model.

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[41] Osilla, K. et al (2014).

4 Key findings

The full socioeconomic cost benefit analysis study considered the potential benefits that could flow – both to the individual and to the public – from introducing a program of support for Victorian children in all forms of OOHC that gives them the option to extend such care from the age of 18 to the age of 21.

The modelling results from the full study show that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 1.84.** That is, a dollar invested in the program is associated with an expected return of $1.84 in either savings or increased income.

Looking at benefits and costs which accrue primarily[42] to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public spend is approximately 1.60.**

Other key findings include:

- The probability of homelessness is halved, from 39% down to 19.5%;

- The probability of pursuing further education is increased, from 3.6% to 9%;

- The probability of arrests is down from 16.3% to 10.4%;

- The probability of hospitalisation is decreased, from 29.2% to 19.2%;

- The probability of alcohol or drug dependence is decreased, from 15.8% to 2.5%; and

- There are also benefits across a number of other domains including: improved mental health and physical health outcomes, reduced intergenerational disadvantage, and an increase in social connectedness.

The care leaver population at June 2014 was estimated to be 524 young people. Multiplied over the 2015 care leaver population of 524, modelling results suggest the expected program cost for this group would be equivalent to $10.5 million. Multiplying expected benefits over the care leaver population of 524 reveals that expected benefits of program roll-out would be $19.3 million.

As Figure 4.1 shows, the greatest benefits are seen to exist in the estimated savings to housing supports, justice costs, and alcohol and other drug (AOD) costs. There are also saved costs that relate to Commonwealth spending, namely, the reduction in welfare costs and a proportionate reduction in hospital funding costs.

The modelling results have been calculated on the basis that program provision costs $27,833 per year, per program participant. Of note, this top down program costing is considered to be a reasonable estimate of the potential program cost on the basis of bottom-up costing recently undertaken by

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[42] Noting that a small proportion of estimated AOD cost savings will also flow to society

Anglicare Victoria. Anglicare Victoria calculated the potential per child expense of case worker support, carer reimbursement and program operational costs to estimate that the per child program cost would be equivalent to approximately[44] $28,000 per year[45].

> The positive benefit cost ratios represented in the modelling results suggest that this total could in fact **increase to $51,312** per year, per program participant before costs began to exceed benefits.

Figure 4.1: Distribution of benefits
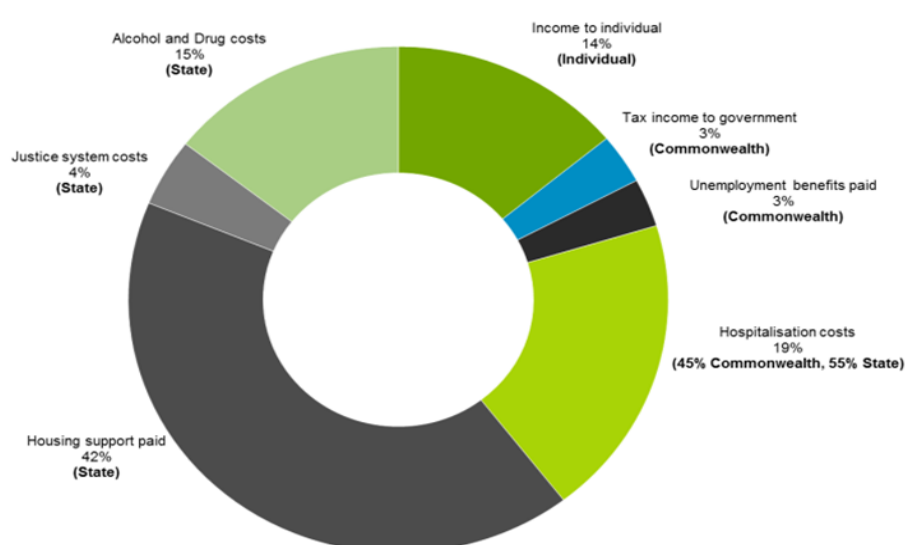
Sensitivity analysis was conducted on these results to understand how the modelling responded to changes in key input parameters. A central assumption is that 25% of eligible individuals will take up the option of the extended program and that all 25% will remain in the program voluntarily for three years.

> Sensitivity analysis was applied to consider a different uptake pattern such that the initial uptake (for one year) is 80%, then drops to 50% in the second year, and finally sees 25% complete three years of the program. **In this instance the benefit to cost ratio was estimated to be 2.53.**
>
> Sensitivity analysis was also conducted to determine whether the program would provide a positive return in a shorter time frame (20 rather than 40 years). **It was estimated that the benefit to cost ratio over a 20 year period would be 1.25.**

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[44] Note that the $28,000 per year program cost calculated by Anglicare excludes residential care which is typically more expensive to provide compared to other types of OOHC, such as foster care. In 2014, the AIHW (2015) reported children in residential care made up 5.5% of the total population of children in OOHC in Australia, and 6.7% in Victoria.
[45] Anglicare Victoria (2014).

To supplement the Victorian-specific findings of this report, we have also investigated the impact of implementing an extended care program in other states and territories in Australia. To conduct this analysis, the same base model is utilised – that is, a consideration of the economic impacts of improved access to education and, relatedly, employment; improved housing stability; reduced interaction with the justice system; improved access to healthcare; and, reduced incidence of alcohol and/or drug dependence.

Table 4.1 shows that an OOHC extension program would see a return to investment of between $1.40 to $2.69 per dollar spent (1.4 – 2.69 benefit cost ratio) in all Australian states. Half of the jurisdictions (WA, NSW, TAS and QLD) would at least double the monetary investment in benefits (2.17 to 2.69).

A state by state breakdown is provided in section 5.

Table 4.1: Benefit to cost ratios for each state, ranked in descending order

State	BCR
QLD	2.69
TAS	2.69
NSW	2.57
WA	2.17
NT	1.94
VIC	1.84
ACT	1.77
SA	1.40

It should be noted that, in reality, socio-economic returns are likely to be higher than those estimated by the model, as a number of potential benefits including improved mental and physical health outcomes, and improved community engagement, could not be quantified due to lack of data. Such benefits are additional to those included in the model and as such qualitatively serve to increase the return to investment.

Key additional areas of such benefit include:

- **Mental health –** The duration and severity of mental illness may be improved by extension of exit age due to the reduction of disruption to young people's lives. Currently, youth in care start to be prepared from the age of 15 to exit the system by 18.[46] It is therefore plausible that many in the system start to become disengaged during their formative adolescent years aged 15-17, which has been identified as an issue especially toward the start of exit planning.[47] This hampers access to effective treatment as young people may experience uncertainty and disruption during this period and therefore delay treatment. Early intervention has also been identified to be important in preventing the progression of mental illness and mitigating collateral effects on social, educational and vocational outcomes.[48]

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[46] Mendes, Johnson, & Moslehuddin. (2011)
47 Victorian Department of Human Services. (2012)
48 McGorry, P., Parker, A. & Purcell, R. (2006)

- **Physical health outcomes –** The difference in physical health outcomes between 18 year old care leavers and those who stay in care to age 21 have not been extensively researched; however it has been postulated that young people who remain in care longer may experience physical health benefits as a result of improved education and employment outcomes associated with remaining in care longer than people who leave care at 18 years.[49] By increasing the time spent both in formal schooling and with an adult carer exerting a positive influence, extended care could also potentially increase levels of awareness, and usage of healthcare services that prevent future ill health.

   Intergenerational disadvantage – By encouraging continued education, extended care raises the probability of employment and the average income of care leavers, plus reduces the probability of criminal activity. Given that children's outcomes (health, education, income) have been found to be significantly associated with their parents' earnings and socio-economic status, extending OOHC beyond 18 years could reduce the intergenerational disadvantage experienced by care leavers and their own children.[50] Relatedly, research has linked adolescent mothers' lower educational outcomes to lower outcomes also for their own children[51]. It has been reported that staying in care beyond the age of 18 years may mitigate the risk of becoming pregnant, and therefore extending care may be one way to help reduce teenage pregnancy among the care leaver population.[52]

- **Social connectedness –** Children in OOHC may experience fragmented relationships with next of kin due to the physical separation brought about (and often legally required) through the OOHC arrangements, as well as because of the source of family abuse itself.[53] Researchers have identified the pivotal role that stability and connectedness play in establishing better outcomes of children in foster care[54]. It is postulated that, by offering the possibility of extended care, with associated greater potential stability in accommodation and care arrangements, children may experience continued connection to individuals where they had forged positive relationships, leading to improved emotional wellbeing and social benefits for young people in extended care.[55]

- **Disability Adjusted Life Years –** A commonly included method within cost benefit analyses for health policies or programs is the estimation of disability adjusted life years (DALYs).[56] Each DALY saved is very valuable, with the Department of the Prime Minister and Cabinet valuing a DALY averted (a year of healthy life saved) at $182,000 in 2014.[57] The modelling for this project has not considered DALYs in the calculation of benefits and has instead focussed on financial costs and savings. This means that the overall benefit of extending care estimated in the current model is conservative, since the value of these DALYs saved has not been included.

Together, these results and accompanying research put forward a sound socio-economic case for consideration of public investment in the future of young people in OOHC, beyond the age of 18.

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49 Hannusek & Woessman (2010); Johnston, G (2004); Levin, B (2003)
50 Mayer (2002)
51 Tang et al (2014)
52 Dworsky & Courtney (2010b)
53 Osborn & Bromfield (2007)
54 Tilbury & Osmond (2006)
55 Department of Families, Housing, Community Services & Indigenous Affairs with National Framework Implementation Working Group (2010)
56 Access Economics, with the Australian Safety and Compensation Council (2008)
57 Department of Prime Minister and Cabinet (2014)

5 Australian-wide analysis

To supplement the Victorian-specific findings of this report, we have also investigated the impact of implementing an extended care program in other states and territories in Australia.

To conduct this analysis, the same base model is utilised – that is, a consideration of the economic impacts of improved access to education and, relatedly, employment; improved housing stability; reduced interaction with the justice system; improved access to healthcare; and, reduced incidence of alcohol and/or drug dependence. Where Victoria-specific inputs were utilised in the base model, these were updated on a jurisdictional basis to ensure that the modelling results reflect the circumstances of the state/territory which is being considered.

5.1 State-specific model inputs

A number of inputs remain constant across all state/territory models. For example, the discount rate, the nominal growth rates for costs and benefits over time and many of the probability inputs which were determined through international literature. A subset, however, were updated to relate to the specific state/territory under consideration.

The following table provides a summary of the inputs which were updated on a jurisdictional basis. Owing to state based differences in reporting, it is possible that the inputs may reflect slightly differing estimation techniques; however, every effort has been made to ensure consistency with the Victorian approach.

In some cases where data was not reported for a selection of jurisdictions, we have used an index representing the difference in relative costs/price levels (for example, CPI) among the other jurisdictions compared to Victoria, as an approximation technique (as demonstrated in the case of the VET Course costs). This reduces the amount of variability in estimation methods as it uses the Victorian estimate as a base value for the calculations.

Table 5.1: Model inputs per state ($2015)

	VIC	NSW	QLD	SA	WA	TAS	NT	ACT
Average cost of program (per child)[a]								
	$27,833.45	$28,105.40	$28,047.61	$48,736.25	$37,173.94	$24,475.52	$52,351.66	$36,478.67
VET course completion rate[b]								
	33.1%	34.0%	33.1%	38.0%	36.6%	25.7%	34.8%	40.8%
VET course fees (cost of education)[c]								
	$3,433	$3,583.39	$3,473.49	$3,470.60	$3,522.66	$3,412.75	$3,438.78	$3,343.34
Proportion of Indigenous children in care[d]								
	16.98%	35.84%	40.76%	29.91%	50.55%	22.01%	85.24%	25.08%
Cost of housing support[e]								
	$14,344.46	$18,184.96	$19,421.01	$16,695.10	$21,882.56	$14,709.10	$30,602.47	$15,481.04
No. of children exiting care[f]								
	524	854	474	145	190	66	52	34

[a] Costs were sourced from *Productivity Commission (2016)* except for NSW, QLD, and NT which were not reported and have been approximated in our analysis. To do this, we have calculated the proportionate difference between the expenditures on "all out of home care services" for NSW/QLD/NT against VIC's, and applied that to VIC's average cost of program per child
[b] All data in this category was sourced from *National Centre for Vocational Education Research (2014)*
[c] To estimate the cost of course fees for all states other than VIC, the difference between the Education CPI levels of each state was calculated against VIC's. This proportion was then applied to VIC's average VET course fees estimate.
[d] Data from all states were sourced from *Australian Institute of Health and Welfare (2015).*
[e] The same method used in the VIC calculations was applied to all states – i.e. a weighted average of the cost of housing support *(Zaretzky & Flatau 2015)* was calculated using each state-specific ratio between indigenous and non-indigenous children in care.
[f] All numbers were sourced from *Australian Institute of Health and Welfare (2015)* and estimated using the same technique as applied in calculating Victoria's estimate.

5.2 Model outputs

We summarise the model results for each state/territory at both the per-person, and care-leaver population levels. At the per-person level, the numbers represent the costs and benefits per 18 year old child in care. At the population level, the costs and benefits pertain to the total population of care leavers in each jurisdiction (as reported in Table 5.1).

Victoria

The Victorian results are presented in the main body of this report, but have been replicated below in Table 5.2for ease of comparison with the results in the remainder of this chapter.

Table 5.2: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Victoria

VIC (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	124	20,139	**20,015**

Total benefits	56,520	93,381	**36,861**
Net benefits	56,396	73,242	**16,846**
Benefit to cost ratio	-	-	**1.84**
VIC (all care leavers: 524)	**Program not offered**	**Program offered**	**Difference between program offered/not offered**
Total costs	64,774	10,552,839	**10,488,065**
Total benefits	29,616,338	48,931,489	**19,315,151**
Net benefits	29,551,564	38,378,649	**8,827,086**
Benefit to cost ratio	-	-	**1.84**

New South Wales

Table 5.3 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 2.57.** That is, every dollar invested in the program is associated with an expected return of $2.57 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 2.33**.

The care leaver population at June 2014 was estimated to be 854 young people – the highest across all states/territories in Australia, reflecting the proportionately larger population. Multiplied over the 2015 care leaver population of 854, modelling results suggest the **expected marginal (the difference between costs if the program is offered, and not offered) program cost for this group would be equivalent to $17.3 million**. Multiplying expected benefits over the care leaver population of 854 reveals that **expected benefits of program roll-out would be $44.4 million**.

Table 5.3: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; New South Wales

NSW (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	134	20,346	20,212
Total benefits	28,585	80,620	52,034
Net benefits	28,451	60,274	31,823
Benefit to cost ratio	-	-	2.57
NSW (all care leavers: 854)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	114,452	17,375,152	17,260,700
Total benefits	24,411,913	68,849,204	44,437,291
Net benefits	24,297,461	51,474,052	27,176,591
Benefit to cost ratio	-	-	2.57

Queensland

Table 5.4 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 2.69.** That is, every dollar invested in the program is associated with an expected return of $2.69 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 2.44**.

The care leaver population at June 2014 was estimated to be 474 young people. Multiplied over the 2015 care leaver population of 474, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be equivalent to $9.6 million**. Multiplying expected benefits over the care leaver population of 474 reveals that **expected benefits of program roll-out would be $25.7 million**.

Table 5.4: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Queensland

QLD (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	126	20,296	20,170
Total benefits	18,796	73,057	54,261
Net benefits	18,669	52,761	34,092
Benefit to cost ratio	-	-	2.69
QLD (all care leavers: 474)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	59,947	9,620,312	9,560,365
Total benefits	8,909,110	34,628,940	25,719,830
Net benefits	8,849,163	25,008,628	16,159,465
Benefit to cost ratio	-	-	2.69

South Australia

Table 5.5 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 1.4.** That is, every dollar invested in the program is associated with an expected return of $1.40 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 1.27**.

The care leaver population at June 2014 was estimated to be 145 young people. Multiplied over the 2015 care leaver population of 145, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be equivalent to $5.1 million**. Multiplying expected benefits over the care leaver population of 145 reveals that **expected benefits of program roll-out would be $7.1 million**.

Table 5.5: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; South Australia

SA (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	145	35,153	**35,008**
Total benefits	42,164	91,071	**48,906**
Net benefits	42,019	55,917	**13,898**
Benefit to cost ratio	-	-	**1.40**
SA (all care leavers: 145)	**Program not offered**	**Program offered**	**Difference between program offered/not offered**
Total costs	21,035	5,097,219	**5,076,183**
Total benefits	6,113,847	13,205,245	**7,091,398**
Net benefits	6,092,811	8,108,027	**2,015,215**
Benefit to cost ratio	-	-	**1.40**

Western Australia

Table 5.6 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 2.17.** That is, every dollar invested in the program is associated with an expected return of $2.17 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 1.99**.

The care leaver population at June 2014 was estimated to be 190 young people. Multiplied over the 2015 care leaver population of 190, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be**

equivalent to $5.1 million. Multiplying expected benefits over the care leaver population of 190 reveals that **expected benefits of program roll-out would be $11.0 million**.

Table 5.6: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Western Australia

WA (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	142	26,856	**26,715**
Total benefits	2,529	60,420	**57,890**
Net benefits	2,388	33,563	**31,176**
Benefit to cost ratio	-	-	**2.17**
WA (all care leavers: 190)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	26,946	5,102,724	**5,075,777**
Total benefits	480,572	11,479,730	**10,999,158**
Net benefits	453,626	6,377,006	**5,923,381**
Benefit to cost ratio	-	-	**2.17**

Tasmania

Table 5.7 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 2.69.** That is, every dollar invested in the program is associated with an expected return of $2.69 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 2.36.**

The care leaver population at June 2014 was estimated to be 66 young people. Multiplied over the 2015 care leaver population of 66, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be equivalent to $1.2 million**. Multiplying expected benefits over the care leaver population of 66 reveals that **expected benefits of program roll-out would be $3.1 million**.

Table 5.7: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Tasmania

TAS (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	96	17,709	**17,613**
Total benefits	49,505	96,926	**47,421**
Net benefits	49,409	79,217	**29,808**
Benefit to cost ratio	-	-	**2.69**

TAS (all care leavers: 66)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	6,368	1,168,814	1,162,446
Total benefits	3,267,342	6,397,135	3,129,793
Net benefits	3,260,974	5,228,321	1,967,347
Benefit to cost ratio	-	-	2.69

Northern Territory

Table 5.8 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 1.94.** That is, every dollar invested in the program is associated with an expected return of $1.94 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 1.81.**

The care leaver population at June 2014 was estimated to be 52 young people. Multiplied over the 2015 care leaver population of 52, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be equivalent to $2.0 million**. Multiplying expected benefits over the care leaver population of 52 reveals that **expected benefits of program roll-out would be $3.8 million**.

Table 5.8: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Northern Territory

NT (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	132	37,736	37,605
Total benefits	-63,758	9,150	72,908
Net benefits	-63,890	-28,586	35,303
Benefit to cost ratio	-	-	1.94
NT (all care leavers: 52)	**Program not offered**	**Program offered**	**Difference between program offered/not offered**
Total costs	6,845	1,962,290	1,955,445
Total benefits	-3,315,418	475,797	3,791,215
Net benefits	-3,322,263	-1,486,494	1,835,769
Benefit to cost ratio	-	-	1.94

Australian Capital Territory

Table 5.9 shows that under the assumed program cost and program uptake rate (25%), **the benefit to cost ratio of the program is 1.77.** That is, every dollar invested in the program is associated with an expected return of $1.77 in either savings or increased income.

Looking at benefits and costs which accrue primarily to government – a pertinent statistic given the program outlay is assumed to be from public funds – **the benefit cost ratio of public expenditure is approximately 1.61.**

The care leaver population at June 2014 was estimated to be 34 young people. Multiplied over the 2015 care leaver population of 34, modelling results suggest the **expected marginal program cost (the difference between costs if the program is offered, and not offered) for this group would be equivalent to $0.9 million**. Multiplying expected benefits over the care leaver population of 34 reveals that **expected benefits of program roll-out would be $1.6 million**.

Table 5.9: Present value ($2015) of costs and benefits over 40 years (uptake rate 24.95%), in 2015; Australian Capital Territory

ACT (per person)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	150	26,360	**26,210**
Total benefits	52,949	99,377	**46,427**
Net benefits	52,799	73,017	**20,217**
Benefit to cost ratio	-	-	**1.77**
ACT (all care leavers: 34)	Program not offered	Program offered	Difference between program offered/not offered
Total costs	5,102	896,232	**891,130**
Total benefits	1,800,279	3,378,801	**1,578,522**
Net benefits	1,795,177	2,482,569	**687,392**
Benefit to cost ratio	-	-	**1.77**

5.3 Discussion

Table 5.10 shows that an OOHC extension program could see a return to investment of between $1.40 to $2.69 per dollar spent (1.4 – 2.69 benefit cost ratio) in all Australian states.

Table 5.10: Benefit to cost ratios for each state, ranked in descending order

State	BCR
QLD	2.69
TAS	2.69
NSW	2.57
WA	2.17
NT	1.94
VIC	1.84
ACT	1.77
SA	1.40

Half of the jurisdictions (WA, NSW, TAS and QLD) would at least double the monetary investment in benefits (2.17 to 2.69).

South Australia has the lowest benefit cost ratio at 1.40, driven predominately by the high cost of offering the program ($48,736 annually). The assumed cost of the program is calculated as the average cost of providing a year of foster care support. Jurisdictional variations are driven by both supply and demand factors such as the complexity of cases, cost of placement per night, information finding activities, family support services, order seeking, rurality and the general cost of labour. It is important to note that the program cost is, however, an assumption and will be highly contingent on the program design. If, for example, South Australia were to design a program that was costed to be equivalent to the median program cost across all states and territories ($32,292), the benefit to cost ratio would be expected to rise to 2.11.

We note that the cost of running an OOHC program in the Northern Territory was the highest at $52,351.66 but this was offset by a large savings in reduced housing support as a benefit of care extension. The Northern Territory's cost of housing support at $30,602 annually was significantly higher than the other jurisdictions due to the practice of remote location loading payments to foster care providers.

Overall, this broader state and territory analysis has revealed that the extension of support to the age of 21 would be expected to yield positive economic returns in all Australian jurisdictions

6 Conclusion

The overarching objective of OOHC is for all children to have access to stable and safe home environments that afford children in the child protection system equitable development opportunities to children who are not in the child protection system.

However, in Victoria, and equally, across all states and territories in Australia, upon reaching 18 years of age, children in OOHC are legally recognised as "independent" and are required to be exited from their care and accommodation arrangements. By contrast, young people in the general population are now, more than ever, more likely to continue to live with their parents well into their mid-20s, entering and exiting the family home several times as they pursue various development opportunities.

There have been a number of calls to action for considering the extension of care, including in the findings of the Victorian 2012 Vulnerable Children's Inquiry. However, such reform is yet to be either trialled or instituted comprehensively in any jurisdiction in Australia.

The current study considered the potential benefits that could flow – both to the individual and to the public – from introducing a program of support for Victorian children in all forms of OOHC that gives them the option to extend such care from the age of 18 to the age of 21.

Drawing upon international research to determine the marginal impact of providing extended care to young people in OOHC across several life domains. Specifically, the model considers the financial impacts of improved access to education and, relatedly, employment; improved housing stability; reduced interaction with the justice system; improved access to healthcare; and, reduced incidence of alcohol and/or drug dependence.

The modelling results find that under the assumed program cost and program uptake rate (25%), the benefit to cost ratio of the program is 1.84. That is, a dollar invested in the program is associated with an expected return of $1.84 in either savings or increased income.

Owing to data limitations and the intangible nature of some potential benefits, the modelling was not able to account for all benefits canvased in literature. As such, a number of benefits including implications for the sustainment of intergenerational cycles of disadvantage, social connectedness and the burden of disease. Such benefits are additional to those included in the model and as such qualitatively serve to increase the return to investment.

Together, these results and accompanying research put forward a sound socioeconomic case for consideration of public investment in the future of young people in OOHC, beyond the age of 18.