

ABILITY LINKS NSW

SOCIAL COST BENEFIT ANALYSIS

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ACRONYMS AND DEFINITIONS

Below is a list of acronyms used throughout the report, and their definitions.

Acronym	Term/Definition
ALNSW	Ability Links New South Wales
ELNSW	Early Links New South Wales
FY	Financial Year
NDIS	National Disability Insurance Scheme
CBA	Cost Benefit Analysis
BCR	Benefit Cost Ratio
NSW FACS	NSW Department of Family and Community Services
NPV	Net Present Value: the value in today's dollars of future years' activity
Consumer welfare	Individual benefits derived from consumption of goods and services. An increase in consumer welfare occurs when there is increased consumption of good and services.
Search costs	The cost of time and/or money expended by a consumer in researching a product or service.

This report uses cost data for Financial Year (FY) 2015-16. Outcomes data was provided for the first six months of 2016, which was then extrapolated to estimate outcomes for the full FY 2015-16.

EXECUTIVE SUMMARY

In early 2015, Urbis completed a Social Cost Benefit Analysis (CBA) of the Ability Links NSW (ALNSW) program, following the first 16 months of operation in the Hunter, where two providers were operating. The 2015 Social CBA evaluated the first year of the program, based on data for Financial Year (FY) 2013-14. Outcomes recorded in the 2015 report were drawn from the results of 106 case studies, based on interviews conducted by Urbis staff during fieldwork in April and May 2014 and qualitative reports submitted by ALNSW providers. Based on these findings, estimates were also forecast for outcomes for the following two financial years, FY2014-15 and 2015-16.

The evolution of the ALNSW model (which now incorporates Early Links NSW), its implementation and delivery within communities across NSW has been underpinned by a partnership approach and co-design process. In line with this approach, work was undertaken with ALNSW providers to move towards an online data and reporting system, which became operational January 2016. As a result, this has allowed for a greater level of quantitative analysis of data collected.

With more detailed quantitative outcomes data now available for the first half of the 2016 calendar year, Urbis has been engaged by NSW Department of Family and Community Services (FACS) to update the Social CBA for 2015-16, which covers both ALNSW and Early Links NSW (ELNSW). Full year estimates for FY 2015-16 outcomes have been extrapolated from the six month outcomes (January-June 2016).

The aim of this report is to measure the economic and social benefits of both ALNSW and ELNSW. In particular, the report documents how the program has progressed since the last report and demonstrates how outcomes and benefits estimated in the 2015 report have in fact been exceeded.

OUTCOMES

Outcomes data provided by NSW FACS were recorded for ALNSW and ELNSW, and categorised as either individual or community outcomes. Outcomes were reported over a six-month period, from 1 January to 30 June 2016 and have been extrapolated to estimate a full year of outcomes for FY 2015-16 for comparative purposes.

The extrapolated data indicates that 29,410 people have received information only and 10,376 people have collectively achieved 18,864 outcomes for FY 2015-16. Over the same period, 2,132 community outcomes have been achieved.

FACS provided six months of data for the first half of 2016. Outcomes shown in Table E-1 have been extrapolated from this to provide data over FY 2015-16. A more detailed breakdown of outcomes is provided in Section 2.

Table E-1 – NSW FACS outcomes data, 2015-16*

	ALNSW	ELNSW	Total
Individual outcomes			
Social, community and civic participation	4,376	2,928	7,304
Service engagement	4,486	3,782	8,268
Employment	1,128	158	1,286
Education and training	1,150	856	2,006
Total all individual outcomes	11,140	7,724	18,864
Community outcomes			
Physical and environmental accessibility	290	164	454
Business practice/service improvement	534	338	872
Business/organisation leadership	458	348	806
Total all community outcomes	1,282	850	2,132

* Based on data provided for January through June 2016

Source: NSW FACS

METHODOLOGY

In order to estimate the value of ALNSW and ELNSW, each outcome, whether recorded via NSW FACS outcomes data or identified from other sources (where FACS data did not provide enough detail, interviews and Urbis' survey responses were used to develop outcomes), was assigned one or more benefits; as an example, participation in a social network for a previously isolated person could lead to improved community connectedness and self-esteem. Some outcomes share similar benefits, for example, self-esteem may be generated as a result of improved family functioning as well as volunteering.

A number of benefits identified are clear and quantifiable economic benefits, for example increased participation in education and employment (including work experience and volunteering), new business activity, and increased consumer welfare for carers through a reduction in carer hours required.

The nature and aims of ALNSW, however, imply that the larger number of benefits attributed to individuals will be social. For example, greater links to, and participation in the community, leads to improved self-esteem and social networks.

As the outcomes data provided by NSW FACS were not always specific enough to directly attribute benefits, certain assumptions were required regarding benefits. These assumptions were informed by surveys, interviews undertaken by Urbis, and a review of relevant literature.

Only benefits resulting from individual outcomes have been modelled, as the detail of community outcomes recorded was not sufficient to accurately estimate benefits.

In order to compare benefits that accrue over different time periods, all benefits are presented as a Net Present Value (NPV), which represents the value in today's dollars of future years' activity.

Social Cost Benefit Analysis (CBA) was undertaken on ALNSW and ELNSW separately, and on the total program. Social CBA incorporates both economic and social parameters, and allows a monetary value to be placed on the social benefits that result from programs such as ALNSW and ELNSW, through the use of financial proxies.

Outcomes data for Aboriginal participants were also provided by FACS. This allowed for an estimation of economic and social benefits and a Social CBA for the Aboriginal cohort only, using the same methodology used to estimate benefits for the whole cohort.

Results are presented as a net benefit in NPV terms (total benefits minus total costs) and as a Benefit-Cost Ratio (BCR), or the ratio of benefits to costs.

IMPACT

CBA results are presented in Table E–2 below for ALNSW, ELNSW and across the total program.

Table E–2 – CBA results

	ALNSW	ELNSW	Total
Economic benefits (NPV)	\$29.9m	\$16.0m	\$45.8m
Social benefits (NPV)	\$48.1m	\$33.4m	\$81.5m
Total benefits (NPV)	\$78.0m	\$49.3m	\$127.3m
Total costs (NPV)	\$32.8m	\$9.7m	\$42.5m
Net benefit (all benefits)	\$45.2m	\$39.7m	\$84.9m
BCR			
Total benefits	2.4	5.1	3.0
Economic benefits only	0.9	1.7	1.1

Note: totals may not add due to rounding. The above results were derived using a real discount rate of 7%.

The BCR in the current report is much greater than what was predicted in the 2015 report. In the 2015 report, benefits estimated for 2015-16 totalled \$47.8 million (NPV), with a BCR of 1.6. In the current report, benefits for one year were estimated at \$127.3 million (NPV), with a BCR of 3.0.

There are three main drivers underpinning the significant differences between reports:

- the addition of ELNSW (which has delivered greater benefits than costs)
- the program is now well-established across NSW, so that Linkers are able to assist in delivering more outcomes for more people
- the availability of more detailed outcomes.

Comparing each program separately, ELNSW has a BCR of 5.1, much larger than the ALNSW BCR of 2.4, predominately due to cost factors. Costs are split by the proportion of Linkers, and ALNSW has a much greater ratio of Linkers to engaged participants than ELNSW. In other words, ELNSW is getting more economic and social value per outcome for each Linker. This means that the cost per outcome, and therefore cost per benefit, for ALNSW is higher, resulting in a lower BCR relative to ELNSW.

A Social CBA was also performed looking at Aboriginal participants only, with a combined BCR for both ALNSW and ELNSW of at 3.9, somewhat higher than the 3.0 recorded for all participants. BCRs for both ALNSW and ELNSW for Aboriginal participants were also higher than those recorded for the program as a whole, as shown in Table E-3. BCRs were higher for both economic and social benefits captured.

Table E-3 – CBA results: Aboriginal outcomes

	ALNSW	ELNSW	Total
Total benefits			
Aboriginal participants	3.0	5.6	3.9
All participants	2.4	5.1	3.0
Economic benefits only			
Aboriginal participants	1.1	2.0	1.4
All participants	0.9	1.7	1.1

Note: totals may not add due to rounding. The above results were derived using a real discount rate of 7%.

CONCLUSION

The results of the CBA analysis suggest that ALNSW and ELNSW deliver significant economic and social benefits over and above the cost of the program, with particularly strong results for Aboriginal participants.

In fact, outcomes achieved have exceeded expectations based on the preliminary analysis from the first year of the program, which was based on more limited data.

Further, the results presented above are likely to underestimate the full extent of benefits as the following outcomes were not able to be quantified.

- **Community benefits;** these form an important part of the Ability Links program objective, however, there are difficulties quantifying community outcomes data into specific benefits as it is difficult to measure the total number of people (participants and community) directly impacted by community outcomes
- **Intangible social benefits;** not all outcomes have been able to be robustly quantified and so these have been incorporated in a purely qualitative manner
- **Benefits to those who received information only (without achieving an outcome);** again, it is not possible to determine the value of information received by the individual, or the course of action it may have led to, without further follow up.

INTRODUCTION

CONTEXT

Ability Links NSW (ALNSW) was established as the NSW approach to local area coordination for people with disability, their families and carers. It is a critical component of the NSW transition to person-centred and individualised funding arrangements. The program is part of the NSW contribution to the National Disability Insurance Scheme (NDIS) and aligns with the early intervention aspects of the NDIS.

ALNSW was officially launched in the Central Coast and Hunter New England Districts on 1 July 2013, to coincide with the launch of the NDIS in the Hunter trial site. Following the state-wide implementation of ALNSW in July 2014, there are now 16 ALNSW providers across NSW, eight of which involve partnership arrangements. The 16 providers are comprised of four large ALNSW (generalist) providers and 12 smaller ALNSW (Aboriginal) providers. There are currently 268 funded Ability Linker positions, of which 47 are Aboriginal-identified.

The target group for ALNSW is people with disability aged 9 to 64 years who do not currently access specialist disability support services and whose needs can be met by taking part in activities in their local community or through accessing mainstream services. ALNSW is staffed by Linkers who have three main roles:

- to work with people with disability, their families and carers to plan for their future
- to help people with disability become more confident, build on their strengths and skills and support them to achieve their goals by building new networks and accessing support and services in their community
- to work alongside communities and mainstream services (Linked agencies), supporting them to become more welcoming and inclusive of people with disability.

The fundamental aim of ALNSW is to assist people with disability to develop networks in their own communities so they can do what they want with their lives outside of the traditional disability service system.

Early Links NSW (ELNSW) supports families of children with disability up to eight years old. ELNSW was launched in 2009 and was formerly known as the Early Start Diagnosis Support Program. In September 2013, steps were taken to align the ALNSW and ELNSW programs. ELNSW has similar components and objectives to ALNSW; in particular, both programs focus on local area coordination to improve outcomes for children with disability, their families and carers.

ELNSW funds Early Linkers who provide time-limited, individually-tailored support to families of children with a disability or developmental delay during the time of diagnosis or while awaiting diagnosis. Early Linkers provide families with person-centred and family-centred support, information and assistance to access services and supports to meet the family's goals within their local communities. The Early Linkers play a key role in improving access to mainstream options and linking families to services.

Currently there are 20 ELNSW providers across NSW, of which seven are generalist and 13 are Aboriginal providers. There are 79 Early Linker positions, of which 27 are Aboriginal-identified.

PREVIOUS REPORTING

In early 2015, Urbis completed a Social Cost Benefit Analysis (CBA) of the ALNSW program, following the first 16 months of operation in the Hunter.

The 2015 Social CBA evaluated the program, based on data for FY 2013-14.

Outcomes recorded in the 2015 report were drawn from interviews conducted by Urbis staff and ALNSW provider reports. From 106 case studies, 906 individual outcomes were achieved.

The study assumed that these case studies were a representative sample for the entire ALNSW cohort and that similar patterns of benefit would occur across a larger cohort as the program was rolled out in subsequent years.

It was estimated that at full operational capacity there would be 268 Linkers across the 16 providers. Currently, this is the same number of positions that are funded. However, when the first report in 2015 was undertaken, ELNSW had not yet been established in its current form and was not included in the study.

To test the outcomes achieved against forecasts in the first Social CBA, and given that ALNSW is now well established in communities across NSW and that ELNSW is included, NSW FACS has engaged Urbis to update the Social CBA for 2015-16 – covering both ALNSW and ELNSW.

The significant difference in the results between the 2015 and 2016 reports due to:

- the expansion of ALNSW to include a larger cohort and the ELNSW program
- the increase in the number of people accessing ALNSW, as it is now well established in communities across NSW
- improved data availability: the more detailed and granular data now available for a significantly larger cohort has allowed a much larger set of outcomes to be quantified.

DATA LIMITATIONS

The initial reporting template was put in place when ALNSW became operational in the Hunter from 1 July 2013 to enable St Vincent de Paul Society – Hunter to report data during the early establishment of the program. Following the state-wide expansion of ALNSW, from 1 July 2014, utilising a collaborative approach, ALNSW providers decided to keep the initial reporting template in place until completion of the expansion, and all providers started reporting data against the initial template.

However, the initial template captured data from providers at an aggregated level and had more of a focus on the number of ‘new’ individuals accessing ALNSW rather than details concerning outcomes achieved by those individuals.

In light of this, in the early establishment phase, the positive impact ALNSW was having on individuals’ lives and the community more broadly was collected through qualitative stories submitted by providers. The format of the template and aggregation of data therefore prevented any detailed analysis of quantitative data that highlighted individual and community outcomes being achieved.

Throughout 2015 ALNSW providers and FACS worked collaboratively to design a data set that correlated with the role of the Linker and that supported the collection of consistent outcomes data from all funded ALNSW and ELNSW providers. As of 1 January 2016, a new online data collection system commenced.

As a result of this, it has only been possible to report on program data for the first six months of the 2016 calendar year, with extrapolation of actual program data used to estimate annual figures for the 2015-16 financial year.

As with any new data collection system, there is a possibility of some variability in reporting and/or coding practices across providers. However, FACS have undertaken a number of quality checks to test the reliability of the data, and are confident that the number and trends are reasonably accurate in describing program utilisation and outcomes.

To minimise any potential for bias, data presented in this report has been cross-checked with all available data sources to test the veracity of themes and opinions presented. There is a high level of congruence between the quantitative and qualitative research that has been undertaken for the evaluation.

REPORT STRUCTURE

This report is presented in four parts:

- program costs are presented in Section 1
- Section 2 provides a broad discussion of the types of outcomes achieved for individuals and community for both ALNSW and ELNSW
- Section 3 presents the quantification of benefits – including the methodology behind attribution and values used
- Section 4 presents the Cost Benefit Analysis – comparing the value of benefits against costs, and offering conclusions.

1. PROGRAM COSTS

ALNSW and ELNSW program costs were provided by NSW FACS for the 2015-16 financial year. There were 347 Linkers in 2015-16, 79 of which are Early Linkers, supporting children 0-8 years and their families, and 74 Aboriginal-identified Linkers, with the total cost for the program at \$42.5 million¹. A detailed breakdown of costs is provided in Table 1-1 below.

Table 1-1 – Detailed program costs

Item	Value
Funded cost per Linker (exc. brokerage)	\$117,245
Allocated brokerage budget per Linker	\$5,749
Actual brokerage funds used per Linker*	\$1,437
Total cost per Linker (inc. brokerage)	\$118,682
Total Linker package cost	\$41.2 million
Other program costs	\$1.3 million
Total cost	\$42.5 million

* assume only 25% of brokerage funds spent by each Linker, based on information provided by NSW FACS

Source: NSW FACS, Urbis

While costs are not allocated separately across ALNSW and ELNSW, Urbis has estimated the cost for each service based on the proportion of Linkers in each program. This is explained further in Section 4.

Program costs provided by NSW FACS for 2015-16 are higher than those forecast in the 2015 report. In the previous report, program costs for 2015-16 were forecast at \$30.8 million. Most of this difference can be attributed to the previous report not including ELNSW program costs.

¹ Program costs are presented as combined costs for both ALNSW and ELNSW. Program costs were separated by ALNSW and ELNSW by the proportion of Linkers in each program.

2. INDIVIDUAL AND COMMUNITY OUTCOMES

This Section details ALNSW and ELNSW program outcomes. Outcomes were reported over the six-month period January to June 2016, but have been extrapolated to provide outcomes for the full financial year 2015-16.

Outcomes data provided by NSW FACS were recorded for ALNSW and ELNSW, and cover individual and community outcomes.

Over 2015-16, there were an estimated 43,533 instances of people who engaged with either ALNSW or ELNSW. Of these, 29,410 were provided with information only, 3,747 are working towards achieving an outcome, and 10,376 achieved an outcome.

The total number of individual outcomes achieved was estimated at 18,864. In addition to individual outcomes, 2,132 community outcomes were achieved.

Individual outcomes are recorded against four categories:

- social, community and civic participation
- service engagement
- employment
- education and training.

Community outcomes are recorded across three categories:

- improved physical and environmental accessibility
- business practice/service improvement
- business/organisation leadership.

Where an outcome could not be clearly classified under one of these categories, it has been omitted from this study.

NSW FACS also provided data for Aboriginal participants who achieved an outcome only. Extrapolated to 2015-16, there were 2,808 Aboriginal participants across ALNSW and ELNSW who achieved an outcome. Across all 2,808 Aboriginal participants, 6,246 outcomes were achieved. Detailed individual outcomes for Aboriginal participants are included in Appendix A, and Social CBA indicators for Aboriginal participants in Section 4.2.

This report only evaluates the benefits to those participants who achieved an outcome, however, as can be seen, there are many more participants who received information only or are working toward an outcome. Thus, the benefits of the ALNSW and ELNSW programs in the long-run are likely to greatly exceed those outlined in this report.

2.1. INDIVIDUAL OUTCOMES

Table 2-1 details the outcomes achieved by individuals across the four categories. As previously noted, the twelve month figures have been extrapolated from data available over the six months January to June 2016.

Table 2-1 – Individual outcomes (2015-16)

	ALNSW	ELNSW	Total
Social, community and civic participation outcomes			
Connection with friends/peers	588	384	972
Informal family support activities	446	992	1,438
Connection with a community or interest group	1,192	340	1,532
Recreational activity linked to passions	810	214	1,024
Community or social events	298	214	512
Connection with services specifically focused on increasing community connections	794	698	1,492
Cultural connection	248	86	334
Social, community and civic participation total	4,376	2,928	7,304
Service engagement outcomes			
Access mainstream services	2,576	1,706	4,282
Access specialist disability support	1,910	2,076	3,986
Service engagement total	4,486	3,782	8,268
Employment outcomes			
Small business/entrepreneurial advice/grants information	58	2	60
Skills development support	278	64	342
Assistance negotiating/liasing with employers to secure employment	190	20	210
Connecting with disability employment services	236	48	284
Work Experience	98	8	106
Volunteering	268	16	284
Employment total	1,128	158	1,286
Education and training outcomes			
Assistance identifying/connecting to TAFE or University courses	444	20	464
Training activities related to employment	264	56	320
Support accessing or liaising with schools	442	780	1,222
Education and training total	1,150	856	2,006
Total all individual outcomes	11,140	7,724	18,864

Source: NSW FACS 2016

2.2. COMMUNITY OUTCOMES

Table 2-2 details the community outcomes achieved as a result of ALNSW and ELNSW. These are not included as part of the Social CBA.

Table 2-2 – Community outcomes (2015-16)

	ALNSW	ELNSW	Total
Improved physical and environmental accessibility outcomes			
Improved accessibility of physical access for those with mobility issues	148	60	208
Improved accessibility of sensory environment	86	60	146
Improved signage and other communication methods	56	44	100
Physical and environmental accessibility total	290	164	454
Business practice/service improvement outcomes			
Changed internal policy documents to build in inclusive practices	30	24	54
Delivered staff training on disability inclusion and awareness	64	38	102
Improved employment/recruitment process	8	14	22
Promotes their organisation as being actively inclusive of people with disability	432	262	694
Business practice / service improvement total	534	338	872
Business/organisation leadership outcomes			
Organised/hosted education or awareness raising activities	230	158	388
Implemented formal partnership arrangements	228	190	418
Business/organisation leadership total	458	348	806
Total all community outcomes	1,282	850	2,132

Source: NSW FACS 2016

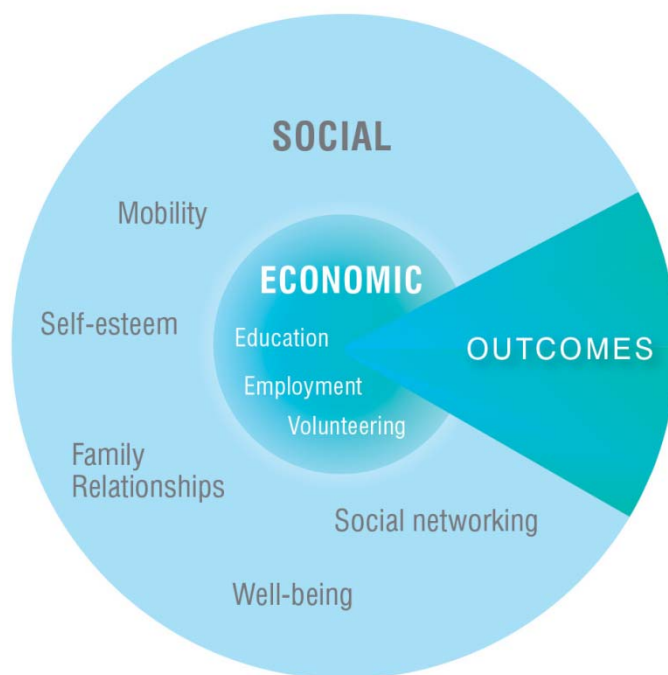
3. BENEFITS

The measurable benefits of ALNSW and ELNSW are wide ranging, and include both social and economic benefits. ALNSW and ELNSW have the potential to benefit not only persons accessing the program, but their families and carers, and indeed the community as a whole.

A number of these benefits have clear and quantifiable economic benefits, for example increased participation in education and employment (including work experience and volunteering), new business activity, and increased consumer welfare for carers through a reduction in carer hours required.

As noted in the 2015 study, however, the nature and aims of ALNSW imply that the greater number of benefits generated by individuals will be social, for example improved self-esteem, social networks and family relationships (Figure 3-1).

Figure 3-1 – ALNSW outcomes map



Notwithstanding that these outcomes may appear less tangible they are no less real and important, generating significant social benefits. In the past, such benefits have typically been discussed qualitatively. The advancement of Social CBA, however, allows a monetary value to be placed on the social benefits that result from programs such as ALNSW, through the use of financial proxies.

Urbis has taken a conservative approach and assumed that the majority of benefits endure for just one year. The exception are two employment outcomes – *assistance negotiating/liasing with employers to secure employment* and *connecting with disability employment services* – both of which are assumed to have longer lasting benefits that come from securing employment, and one education outcome – *assistance identifying/connecting to TAFE/University courses*. The employment outcomes are valued over a 10-year period, while the education outcome is valued over a lifetime.

In order to compare benefits that accrue over one year with benefits that accrue over 10 years, all benefits are presented as a Net Present Value (NPV), which presents the value of future years' activity in today's dollars.

3.1. ATTRIBUTING BENEFITS TO OUTCOMES

The following section details the assumptions used to estimate the value and attribution of benefits resulting from NSW FACS outcomes. Each outcome, whether recorded via NSW FACS outcomes data or identified from other sources, is assigned one or more benefits. Benefits can also be attributed to more than one outcome.

As the outcomes provided by NSW FACS were not always specific enough to attribute benefits, assumptions were required, including on the size and attribution of benefits resulting from outcomes. Assumptions were drawn from the Urbis survey, interview transcripts and relevant literature.

Only individual benefits have been modelled, as the detail of community outcomes recorded were not sufficient to accurately estimate benefits.

The values assigned to benefits are detailed in Section 3.1.1. Attribution rates for certain benefits are detailed in Section 3.1.2.

3.1.1. Values assigned to benefits

Benefits were assigned to the outcomes provided by NSW FACS, detailed in Section 2, and to additional outcomes drawn from the survey and interview transcripts. Assigned benefits are based on those used in the 2015 Urbis report where applicable, updated to 2016 values. For details on sources used to derive the value of benefits, see Appendix B.

Table 3-1 details the economic benefits associated with ALNSW and ELNSW, the annual value of benefits, and applicable outcomes.

Table 3-1 – Economic benefits assigned to outcomes

Benefit	Value	Applicable Outcomes
Small business/entrepreneurial/grants information	Total cost for 4 advisory sessions of 1 hour with NSW small business connect program – first 2 sessions free, following 2 \$50 each. Annual value: \$100	Small business/entrepreneurial advice/grants information
Skills development support	Based on average commercial fee for preparing resume. Annual value: \$100	Skills development support
Paid employment – 15 hrs per week	Average hourly earnings of \$29.46 for 15 hrs a week, 46 weeks a year Annual value: \$20,324	- For the outcome <i>assistance negotiating/liasing with employer to secure employment</i> only applies to the 20% who got a job - For the outcome <i>connecting with disability employment services</i> only applies to the 26.1% who got a job
Work experience - 15 hrs per week	Using minimum wage of \$17.29 for 15 hours a week, 46 weeks a year Annual value: \$11,930	Work experience
Volunteering – 2 hrs per week	Using minimum wage of \$17.29 for 2 hours a week, 46 weeks a year Annual value: \$1,591	Volunteering
Incremental increase in lifetime earnings from completing TAFE course	Assume completing TAFE only (not University). Difference in lifetime earnings for someone who has completed TAFE over someone who has completed Year 12: \$20,000	Applies to 49% of those who had assistance identifying/connecting to TAFE/University courses

Benefit	Value	Applicable Outcomes
Economic value of training activity	Valued at cost of one-day introductory computing course: \$329	• Applies to 64% of those who achieved the outcome of training activities related to employment
Reduction in search costs	Valued at minimum wage of \$17.29 for 1 hour per week Annual value: \$795	• All service engagement outcomes
Increase in consumer welfare	Valued at average hourly earnings of \$29.46 for 4 hours per week Annual value: \$5,421	• Applies to 55% of ELNSW participants who achieved an outcome – those that indicated in Urbis survey that they had improved opportunities to go out with friends (proxy for consumer welfare) • For ALNSW participants, only 22% of the 55% (percentage who were primary carer, based on ABS data detailed in Appendix A)

Note: attribution rates are outlined in section 3.1.2

Table 3-2 details the social benefits associated with ALNSW and ELNSW, the annual value of benefits, and applicable outcomes.

Table 3-2 – Social benefits assigned to outcomes

Benefit	Value	Applicable Outcomes
Increased self-esteem	Average fee for clinical psychologist of \$160.29, once per fortnight. Annual value: \$4,168	• All social, community and civic engagement outcomes • All employment outcomes - For outcome <i>assistance negotiating/laising with employer to secure employment</i> only applies to the 20% who got a job - For outcome <i>connecting with disability employment services</i> only applies to the 26.1% who got a job • All education outcomes - Support accessing or liaising with schools has outcome for parent also
Improved personal well-being	Average fee for clinical psychologist of \$160.29, once per fortnight. Annual value: \$4,168	• All service engagement outcomes
Improved social capital	Cost of participating in social group of \$7.50, once per fortnight. Annual value: \$195	• All social, community and civic engagement outcomes • All employment outcomes - For the outcome <i>assistance negotiating/laising with employer to secure employment</i> only applies to the 20% who got a job - For the outcome <i>connecting with disability employment services</i> only applies to the 26.1% who got a job

Note: attribution rates are outlined in section 3.1.2 following

3.1.2. Attribution rates

Additional information was required to accurately attribute the benefits of some outcomes, and to avoid overstating the benefits. The attribution rate for each outcome is the proportion of those who achieved the outcome who receive the benefit associated with that outcome. For each outcome, attribution rates and a brief description of the reasoning behind attribution rates are included in Table 3-3. Any outcome not listed in Table 3-3 is assumed to have a 100% attribution rate.

Table 3-3 – Outcomes with associated attribution rates

Outcome	Benefit attribution rate	Description
Assistance negotiating/liaising with employers to secure employment	20% who achieve this outcome get a job	In the Urbis survey 5 out of 30 (20%) participants answered that ALNSW had helped them get a job.
Connecting with disability employment services	26% who achieve this outcome get a job	Job placement rate for the Federal Department of Employment's Disability Employment Service.
Assistance identifying/connecting to TAFE or University courses	49% who achieve this outcome commence and complete TAFE course	In the Urbis survey 7 out of 11 (64%) participants commenced study thanks to ALNSW. Of those, it was assumed that 78% completed TAFE course, based on the 2013 TAFE completion rate for all students and courses. Data for people with disabilities was not available.
Training activities related to employment	64% attend training activity	In the Urbis survey 7 out of 11 (64%) participants commenced study thanks to ALNSW.
Reduced reliance on family/volunteer carer	12% of ALNSW outcomes and 55% of ELNSW outcomes had increase in consumer welfare	In the Urbis survey 22 out of 40 (55%) of ELNSW families said they had at least some reduction in reliance on family care For ALNSW, it was assumed that 22% of participants had a primary carer, based on ABS Survey of Disability, Ageing and Carers. For those with a primary carer, it was assumed they had the same improvement in opportunities to go out with friends as in ELNSW. Equivalent to 12% of all ALNSW outcomes.

3.2. ECONOMIC BENEFITS

This section details the total economic benefits accrued from all individual outcomes, presented in NPV terms.

Total economic benefits across both ALNSW and ELNSW are \$45.8 million in NPV terms. Of this, \$29.9 million (65%) came from ALNSW, with \$16.0 million (35%) from ELNSW. See Table 3-4 following.

Table 3-4 – Economic benefits of individual outcomes (2015-16 to 2024-25)

Outcome	Benefit	AL NPV	EL NPV	Total NPV
Employment (2016 \$)				
Small business/entrepreneurial advice/grants information	Economic value of small business/entrepreneurial/grants information	5,800	200	6,000
Skills development support	Economic value of skills development support	27,800	6,400	34,200
Assistance negotiating/liasing with employers to secure employment	Paid employment – 15 hours per week	5,804,000	611,000	6,415,000
Connecting with disability employment services	Paid employment – 15 hours per week	9,408,000	1,914,000	11,322,000
Work experience	Work experience – 15 hours per week	1,169,000	95,000	1,265,000
Volunteering	Volunteering – 2 hours per week	825,000	49,000	874,000
Education and training (2016 \$)				
Assistance identifying/connecting to TAFE or University courses	Incremental increase in lifetime earnings from completing TAFE	4,385,000	198,000	4,583,000
Training activities related to employment	Economic value of training activities	55,000	12,000	67,000
Service engagement (2016 \$)				
Access to mainstream services and specialist disability support	Reduction in search costs	3,568,000	3,008,000	6,576,000
Family and carers* (2016 \$)				
Reduced reliance on family/volunteer care	Increase in consumer welfare	4,607,000	10,081,000	14,689,000
Total economic benefits (2016 \$)				
		29,855,000	15,974,000	45,830,000

* not captured in NSW FACS outcomes data

Note: totals may not add due to rounding

3.3. SOCIAL BENEFITS

This section details the total value of social benefits accrued from all individual outcomes, presented in NPV terms. See Table 3-5 following.

Total social benefits across both ALNSW and ELNSW are \$81.5 million in NPV terms. Of this, \$48.1 million (59%) came from ALNSW, with \$33.4 million (41%) from ELNSW.

Table 3-5 – Social benefits of individual outcomes (2015-16 to 2024-25)

Outcome	Benefit	AL NPV	EL NPV	Total NPV
Employment (2016 \$)				
Small business/entrepreneurial advice/grants information Skills development support	Increased self esteem	1,466,000	288,000	1,754,000
	Improved social capital			
Assistance negotiating/liasing with employers to secure employment	Increased self esteem	1,315,000	145,000	1,460,000
	Improved social capital			
Connecting with disability employment services	Increased self esteem	2,019,000	411,000	2,430,000
	Improved social capital			
Work experience	Increased self esteem	1,597,000	105,000	1,701,000
Volunteering	Improved social capital			
Education and training (2016 \$)				
Assistance identifying/connecting to TAFE or University courses	Increased self esteem	1,178,000	53,000	1,231,000
Training activities related to employment	Increased self esteem	700,000	149,000	849,000
Support accessing or liaising with schools	Increased self esteem – child	2,078,000	3,667,000	5,746,000
	Improved well-being – parent			
Service engagement (2016 \$)				
Access to mainstream services and specialist disability support	Improved well-being	18,696,000	15,762,000	34,457,000
Social, community and civic participation (2016 \$)				
All social outcomes	Increased self esteem	19,091,000	12,774,000	31,864,000
	Improved social capital			
Total social benefits (2016 \$)				
		48,139,000	33,353,000	81,492,000

Note: totals may not add due to rounding

3.4. COMMUNITY BENEFITS

Urbis was unable to quantify community benefits, due to the lack of specificity around outcomes identified. For example, greater access to employment opportunities may have assisted the individual, the business and/or other individuals with disability. It may also have led to greater levels of understanding and acceptance of disability in the community

As community benefits are important – and indeed a core aim of the Ability Links and Early Links programs – they are included here qualitatively. Urbis notes that, if quantifiable, these outcomes would add significantly to the quantified results achieved.

3.4.1. Physical

The NSW FACS data indicated that there were 454 (extrapolated for 12 months) outcomes that resulted in improved accessibility.

Improved accessibility of physical access (installing ramps, improving the accessibility of bathrooms) has economic benefits for those with mobility issues, their carers and the broader community. These economic benefits include reduced risk of accidents and hospitalisation, time cost savings to access buildings (steps vs a ramp) and bathrooms.

As an indication of the value of accessibility in the community, a study² was undertaken to quantify the benefits of building barrier-free (more accessible) housing. The study used contingent valuation (willingness to pay) to compare two similar dwellings, with the only difference being their accessibility conditions. One thousand and seven (1,007) randomly chosen households that answered the direct survey indicated they would pay, on average, 12.5% more for barrier-free housing. Another 97 households selected from a list of people with a disability provided by a non-governmental organisation indicated they would pay an average of 1.4% more (that is, a 13.9% price increase for the barrier-free dwelling). The study indicates that accessibility is a general concern, an economic good or attribute that most households value, irrespective of the physical conditions of their members. There is a quantifiable premium that society places on accessibility.

Further, it is estimated that around 31% of the Australian population at any one time may have accessibility requirement, so catering to the needs of people with disability has much wider positive impacts across the community³.

3.4.2. Business

The NSW FACS data indicated that there were 872 (extrapolated for 12 months) outcomes where changes to business practices ensure the business is inclusive and accessible to people with disability.

Changes in practices and policies in businesses that are likely to reduce barriers to entry to the work force for people with a disability include:

- building in inclusive practices
- staff training on disability inclusion and awareness
- improvement employment/recruitment process
- promotion of their organisation as being actively inclusive of people with disability.

The major economic benefit of lowering workforce participation barriers is reduced employment search costs for people with disability. This report was not able to quantify these benefits.

There are commercial benefits for businesses to adopt more inclusive and accessibility policies and practices. A 2006 UK survey on the opinions and shopping habits of customers with a disability found that 75% of disabled people had 'walked away' from making a purchase, unable or unwilling to do so. The most important factor was inaccessible premises. Other important factors that discouraged consumers with a disability from spending were poorly designed products and staff that were not disability confident, rude or appeared prejudiced.⁴

Research by Tourism Queensland found that the majority of people with disability travel with between two and five others. On average, 80 to 90% of all travel by people with disability is with a partner and/or family and friends. Tourism Queensland found that accessible travel services and products and premises, will have a substantial flow-on effect to the rest of the population.⁵

While this report has not been able to quantify the economic benefits of changing business practices to improve accessibility and inclusiveness, they are still significant.

² Alonso F., 2002, *The benefits of building barrier-free: a contingent valuation of accessibility as an attribute of housing*, International Journal of Housing Policy Vol. 2, Issue. 1, 2002, p. 41. Access at <http://www.tandfonline.com/doi/citedby/10.1080/14616710110120577>

³ Darcy, S. & Dickson, T., 2009, *A Whole-of-Life Approach to Tourism: The Case for Accessible Tourism Experiences*, Journal of Hospitality and Tourism Management, Vol. 16, Issue 1, p. 32-44

⁴ Business Disability Forum 2014, *The evidence*, <http://businessdisabilityforum.org.uk/customer-experience/the-evidence>, viewed 22 July 2016

⁵ Australian Network on Disability, *Maximising Your Markets*, http://www.and.org.au/pages/resources-disability-confidence-275-maximising-your-markets-278.html#_ftnref1, viewed 22 July 2016

3.4.3. Leadership

The NSW FACS data indicated that there were 806 (extrapolated for 12 months) outcomes under the leadership, education and awareness category. Of these, 388 outcomes related to hosting education or awareness raising activities.

It is difficult to quantify the direct economic benefits of these types of activities. A potential proxy to calculate the benefits is the cost of undertaking these activities. However, available data did not have sufficient information about what the education and awareness activities undertaken included and/or the cost.

4. COST BENEFIT ANALYSIS

The CBA examines whether the net economic and social benefits of the ALNSW and ELNSW programs outweighed the costs, by comparing the NPV of benefits and costs over the same time period. The NPV is derived using a 7% real discount rate⁶.

Analysis has been undertaken on ALNSW and ELNSW separately, as well as on the program as a whole. Results are presented as:

- the net benefit (cost) in NPV terms – representing **total value generated**, expressed as total benefits minus total costs
- a Benefit-Cost Ratio (BCR) – demonstrating the **ratio** of benefits to costs expressed as a multiple.

A net benefit greater than zero and a BCR greater than one indicate that the benefits of a program outweigh the costs.

4.1. ALL PARTICIPANTS

Program costs for ALNSW and ELNSW are not available as distinct costs and have therefore been estimated using the proportion of Linkers in each program. Of the 347 total Linkers, 286 (77%) are in ALNSW and 79 (23%) are in ELNSW. Across both programs, there are 74 Aboriginal-identified Linkers - 47 in ALNSW and 27 in ELNSW.

In terms of outcomes, 58% of the total participants who have engaged in the program are in ALNSW, while 42% are in ELNSW. This indicates that ALNSW has higher unit costs per outcome than ELNSW. This is not surprising given that ELNSW typically generates benefits for multiple family members.

Results are presented in Table 4-1 below for ALNSW, ELNSW and across the total program.

The BCR for the total program is 3.0, driven by the significant value of social benefits. ELNSW has a BCR of 5.1, compared with a BCR of 2.4 for ALNSW.

When including only economic benefits, the BCR for the total program still exceeds one – at 1.1. This is also true for ELNSW, with a BCR for economic benefits only of 1.7. However, when excluding social benefits, the BCR for ALNSW is 0.9.

If an economic value could be placed on the range of unquantified community benefits, this would see the BCR (for economic benefits only) of ALNSW move above one.

Table 4-1 – CBA results

	ALNSW	ELNSW	Total
Economic benefits (NPV)	\$29.9m	\$16.0m	\$45.8m
Social benefits (NPV)	\$48.1m	\$33.4m	\$81.5m
Total benefits (NPV)	\$78.0m	\$49.3m	\$127.3m
Total costs (NPV)	\$32.8m	\$9.7m	\$42.5m
Net benefit (all benefits)	\$45.2m	\$39.7m	\$84.9m
BCR			
Total benefits	2.4	5.1	3.0
Economic benefits only	0.9	1.7	1.1

Note: totals may not add due to rounding

⁶ Standard NSW Treasury practice discounts values using a 7% real discount rate, with sensitivity analysis using a 4% and 10% discount rate. See Appendix C for sensitivity analysis of CBA results using a 4% and 10% discount rate.

Benefits measured in this report far exceed those found in the 2015 report. In the 2015 report, benefits estimated over for 2015-16 totalled \$47.8 million in NPV terms, with a BCR of 1.6. In the current report benefits for one year total \$127.3 million in NPV terms, with a BCR of 3.0.

There are three key reasons behind significant differences between reports: the addition of ELNSW, the program is now well-established across NSW so that Linkers are able to assist in delivering more outcomes, and the availability of more detailed and accurate outcomes.

4.2. ABORIGINAL PARTICIPANTS

Outcomes data for Aboriginal participants was also provided by FACS. This allowed for an estimation of economic and social benefits and a Social CBA for the Aboriginal cohort only, using the same methodology to estimate benefits.

Of the 10,376 people who achieved an outcome across both ALNSW and ELNSW, 27.1% (2,808) were Aboriginal. There are 47 Aboriginal-identified ALNSW Linker positions, and 27 Aboriginal-identified ELNSW Linker positions.

Of these 2,808 Aboriginal participants who achieved an outcome in 2015-16 (extrapolated from six months of data), 1,568 (56% of Aboriginal participants and 22.4% of all participants) were in ALNSW, and 1,240 (44% of Aboriginal participants and 36.7% of all participants) were in ELNSW.

Program costs for ALNSW and ELNSW across all participants were estimated based on the total number of Linkers, which is the major program cost driver. While data is available on Aboriginal-identified Linker positions, this does not accurately reflect the number of Linkers working with Aboriginal participants as some Aboriginal participants work with non-Aboriginal Linkers, while Aboriginal Linkers assisted both Aboriginal and non-Aboriginal people with disability.

This prevented Aboriginal participant program costs being estimated in precisely the same manner as for total program participants.

Costs were therefore estimated by applying the proportion of Aboriginal participants who have achieved an outcome in both ALNSW and ELNSW to the total cost of each program respectively (as detailed in Section 4.1), which better reflects the resources likely to have been used in achieving outcomes for Aboriginal participants. Urbis does not consider the difference in approach on cost estimation to have had a meaningful impact on estimation of BCRs.

The BCR for all Aboriginal participants in the program was 3.9. Detailed results are presented in Table 4-2 for Aboriginal participants in ALNSW and ELNSW and by Economic and Total outcomes. Economic benefits alone also maintain a BCR greater than one for Aboriginal participants.

Results across the Aboriginal cohort differ from results across all participants. This, in part, reflects the fact that, compared to all participants, Aboriginal participants achieved a higher number of outcomes per person (notably social, community and civic participation for ALNSW), and the outcomes achieved tended to be of higher value (especially for employment and education related outcomes for ELNSW).

In 2015-16, across both ALNSW and ELNSW, Aboriginal participants made up 27.1% of individuals achieving an outcome, while achieving 33.1% of all outcomes.

For ALNSW, Aboriginal participants made up 22.4% of people who achieved an outcome in 2015-16, but accounted for almost 30% of all ALNSW outcomes achieved.

The same is true for ELNSW, where Aboriginal participants made up 36.7% of people who achieved an outcome, but 38.1% of all outcomes; importantly, these outcomes tended to be higher value employment and education related outcomes.

Table 4-2 – Aboriginal CBA results

	ALNSW	ELNSW	Total
(NPV, \$ million)			
Economic benefits	7.98	7.00	14.98
Social benefits	14.41	12.77	21.17
Total benefits	22.39	19.76	42.15
Total costs	7.35	3.54	10.89
Net benefit (total)	15.04	16.22	31.26
BCR			
Total benefits	3.0	5.6	3.9
Economic benefits only	1.1	2.0	1.4

Note: totals may not add due to rounding

4.3. CONCLUSION

The results of the Social CBA analysis suggest that ALNSW and ELNSW deliver significant economic and social benefits. The program appears to have a particularly positive impact for Aboriginal participants.

Importantly, the results presented above are likely to underestimate the full extent of benefits of the programs for two key reasons.

Firstly, community benefits have not been quantified as part of the analysis. An important aspect of Ability Links has always been its impact on communities as a whole, as well as those living with disability. Over time, and with additional research resources, it may be possible to better understand and quantify these benefits.

Secondly, not all outcomes have been able to be robustly quantified and so these have been discussed in a purely qualitative manner.

As anticipated in Urbis' 2015 study, the roll out of the program and increased experience of Linkers has seen the number and nature of outcomes achieved increase significantly, as well as the ability to report these outcomes in more detail.

DISCLAIMER

This report is dated 30 September 2016 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis is under no obligation in any circumstance to update this report for events occurring after the date of this report. Urbis prepared this report on the instructions, and for the benefit only, of NSW Department of Family and Community Services (**Instructing Party**) for the purpose of Social Cost Benefit Analysis (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

Urbis has recorded any data sources used for this report within this report. These data have not been independently verified unless so noted within the report.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading and taking into account events that could reasonably be expected to be foreseen, subject to the limitations above.

APPENDIX A

ABORIGINAL OUTCOMES

Table A-1 list individual Aboriginal outcomes. Aboriginal community outcomes are not included.

Table A-1 – Individual Aboriginal outcomes 2015-16

	ALNSW	ELNSW	Total
Social, community and civic participation outcomes			
Connection with friends/peers	186	122	308
Informal family support activities	254	288	542
Connection with a community or interest group	140	146	286
Recreational activity linked to passions	106	94	200
Community or social events	92	92	184
Connection with services specifically focused on increasing community connections	276	200	476
Cultural connection	182	54	236
Social, community and civic participation total	1,236	996	2,232
Service engagement outcomes			
Access mainstream services	958	926	1,884
Access specialist disability support	558	592	1,150
Service engagement total	1,516	1,518	3,034
Employment outcomes			
Small business/entrepreneurial advice/grants information	14	2	16
Skills development support	80	54	134
Assistance negotiating/liasing with employers to secure employment	44	18	62
Connecting with disability employment services	84	34	118
Work Experience	20	2	22
Volunteering	18	6	24
Employment total	260	116	376
Education and training outcomes			
Assistance identifying/connecting to TAFE or University courses	74	14	88
Training activities related to employment	68	16	84
Support accessing or liaising with schools	152	280	432
Education and training total	294	310	604
Total all individual outcomes	3,306	2,940	6,246

Source: NSW FACS 2016

APPENDIX B

SOURCES FOR BENEFITS

Table B-1 – Sources for social and economic benefits

Benefit	Value	Source
Increased self-esteem	Average fee for clinical psychologist of \$160.29, once per fortnight. Annual value: \$4,168	Beyond Blue 2013, <i>Getting help – how much does it cost?</i> http://resources.beyondblue.org.au/prism/file?token=BL/0114 , viewed 27 July 2016
Improved personal well-being	Average fee for clinical psychologist of \$160.29, once per fortnight. Annual value: \$4,168	Beyond Blue 2013, <i>Getting help – how much does it cost?</i> http://resources.beyondblue.org.au/prism/file?token=BL/0114 , viewed 27 July 2016
Improved social capital	Cost of participating in social group of \$7.50, once per fortnight. Annual value: \$4,168	Gateway Community Services 2016, <i>Brimbank Out and About</i> , http://www.gatewaycommunityservices.org.au/#!/out-and-about/cvfn , viewed 27 July 2016
Small business/entrepreneurial/grants information	Total cost for 4 advisory sessions of 1 hour with NSW small business connect program – first two sessions free, following two \$50 each. Total cost \$100	Small Business Commissioner 2016, <i>Small Biz Connect</i> , http://www.smallbusiness.nsw.gov.au/supporting-business/small-biz-connect-advisory-program , viewed 27 July 2016
Skills development support	Based on average commercial fee for preparing resume - \$100	Market valuation for professional resume services – based on comparison of fees
Paid employment – 15 hrs per week	Average hourly earnings of \$29.46 for 15 hours a week, 46 weeks a year Annual value: \$20,324	ABS 2015, <i>Average Weekly Earnings Nov 2015 NSW</i> , cat. no. 6302.0, Table 12A
Work experience - 15 hrs per week	Using minimum wage of \$17.29 for 15 hours a week, 46 weeks a year Annual value: \$11,930	Fair Work Ombudsman 2016, <i>Minimum wages</i> , https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/minimum-workplace-entitlements/minimum-wages#current-national-minimum-wage , viewed 27 July 2016

Benefit	Value	Source
Volunteering – 2 hrs per week	Using minimum wage of \$17.29 for 2 hours a week, 46 weeks a year Annual value: \$1,591	Fair Work Ombudsman 2016, <i>Minimum wages</i> , https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/minimum-workplace-entitlements/minimum-wages#current-national-minimum-wage , viewed 27 July 2016
Incremental increase in lifetime earnings from completing TAFE course	Assume completing TAFE only not University. Difference in lifetime earnings for someone who has completed TAFE over someone who has completed Year 12: \$20,000	NATSEM 2012, <i>Smart Australian: Education and Innovation in Australia</i> , Figure 24
Economic value of training activity	Valued at cost of one-day introductory computing course: \$329	University of Sydney 2016, <i>Computer Basics Courses</i> , https://cce.sydney.edu.au/courses/information-technology/computer-basics , viewed 28 July 2016
Reduction in search costs	Valued at minimum wage of \$17.29 for 1 hour per week Annual value: \$795	Fair Work Ombudsman 2016, <i>Minimum wages</i> , https://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/minimum-workplace-entitlements/minimum-wages#current-national-minimum-wage , viewed 27 July 2016
Increase in consumer welfare	Valued at average hourly earnings of \$29.46 for 4 hours per week Annual value: \$5,421	ABS 2015, <i>Average Weekly Earnings Nov 2015 NSW</i> , cat. no. 6302.0, Table 12A
Percentage ALNSW participants receiving an increase in consumer welfare	For ALNSW, it was assumed that 22%.1 of the 55% participants who had reduced reliance on family care had a primary carer, based on ABS Survey of Disability, Ageing and Carers	ABS 2014, <i>Disability, Ageing and Carers, Australia: NSW 2012</i> , cat. no. 4430.0, Table 35

APPENDIX C

SENSITIVITY ANALYSIS

The following section details the sensitivity analysis undertaken on CBA results – notably using a 4% and 10% discount rate to produce NPVs. A discount rate of 4% likely overstate benefits, while a 10% discount rate tends to underestimate. Sensitivity analysis is used to test the robustness of results.

As can be seen in the tables below, changing the discount rate from 7% does not significantly alter the net benefits or BCRs. At a 4% discount rate the net benefit accrued across both programs only increased by 3.1% - from \$85.12 million at a 7% discount rate to \$87.76 million at 4%. At a 10% discount rate, the net benefit across both programs dropped by 2.6% compared to at a 7% discount rate, to \$82.93 million.

BCRs across all discount rates vary by a maximum of 0.2.

Table C-1 outlines CBA results with a 4% discount rate. Of significance, the BCR for ALNSW with only economic benefits becomes one – meaning the benefits of the program are equal to the cost.

Table C-1 – CBA results with 4% discount rate

	ALNSW	ELNSW	Total
(NPV, \$ million)			
Economic benefits	31.79	16.28	48.01
Social benefits	48.55	33.42	81.97
Total benefits	80.28	49.70	129.98
Total costs	32.79	9.67	42.45
Net benefit (total)	47.49	40.04	87.53
BCR			
Total benefits	2.4	5.1	3.1
Economic benefits only	1.0	1.7	1.1

Note: totals may not add due to rounding

Table C-2 outlines CBA results with a 10% discount rate.

Table C-2 – CBA results with 10% discount rate

	ALNSW	ELNSW	Total
(NPV, \$ million)			
Economic benefits	28.31	15.72	44.03
Social benefits	47.80	33.30	81.10
Total benefits	76.12	49.02	125.13
Total costs	32.79	9.67	42.45
Net benefit (total)	43.33	39.35	82.68
BCR			
Total benefits	2.3	5.1	2.9
Economic benefits only	0.9	1.6	1.0

Note: totals may not add due to rounding



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