

# The economic benefits of increasing employment for people with disability

Commissioned by the  
Australian Network on  
Disability

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# Glossary

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ABS	Australian Bureau of Statistics
DSP	Disability Support Pension
Employment rate	The proportion of the total working age population that are employed
FAHCSIA	The Department of Families, Housing, Community Service and Indigenous Affairs
FTE	Full-time equivalent
Labour force	People that are willing or able to work
NDS	National Disability Strategy
OECD	Organisation of Economic Cooperation and Development
Participation rate	The percentage of the working-age population that are in the labour force
SDAC	Survey of Disability, Ageing and Carers
Unemployed	People that are willing to work but are not employed
Unemployment rate	The proportion of the labour force that is unemployed

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# Executive Summary

People with disabilities are significantly underrepresented in Australia's workforce and, despite substantial improvements in Australia's labour market conditions over the past decade, the gap in employment outcomes for people with and without disabilities has widened. By 2009, only half of the 2.2 million working-age Australians with a disability were employed, compared to nearly 80% of working age Australians without a disability.

There are substantial costs to individuals and to society associated with these poor employment outcomes for people with disabilities. This report estimates the increase in economic output that could be achieved by increasing employment outcomes for people with disabilities.

**The economic modelling presented in this report suggests that closing the gap between labour market participation rates and unemployment rates for people with and without disabilities by one-third would result in a cumulative \$43 billion increase in Australia's GDP over the next decade in real dollar terms. The modelling also suggests that GDP will be around 0.85% higher over the longer term, which is equivalent to an increase in GDP in 2011 of \$12 billion.** These estimates only account for the direct impact on GDP, and do not include indirect effects from improved government fiscal balances and increased employment opportunities for carers.

Closing the gap between labour market participation rates and unemployment rates for people with and without disability by one-third is an achievable – even a conservative – target. It implies an increase in the participation rate for people with disabilities from 54% to 64% and a reduction in the unemployment rate from 7.8% to 6.9%. Many nations, including New Zealand and a number of the Nordic countries, have already achieved or surpassed these benchmarks. Trends towards more flexible working arrangements, together with impending capacity constraints in the Australian labour market, will also help to provide more employment opportunities for people with disabilities.

The policy and program mechanisms for achieving these outcomes are not explicitly addressed in this report, nor does it address the costs associated with achieving an increase in employment participation. Rather, the aim of this report is to present the potential benefits associated with increasing employment participation for people with disabilities and provide a reference point for future policy discussion.

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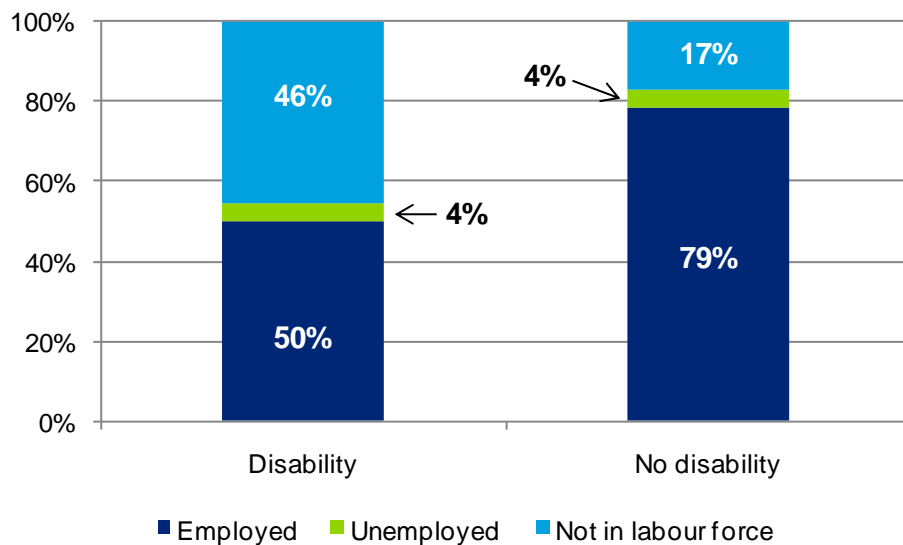
# 1 Introduction

This chapter outlines the disparity in labour market outcomes between people with and without disabilities and discusses some of the barriers faced by people with disabilities.

## 1.1 Background

The Australian economy has undergone a period of sustained economic growth over the past decade which has seen the unemployment rate fall to be just above 5% and the participation rate reach record highs. Despite the overall strength in the labour market, employment outcomes for people with disabilities have fallen further behind the rest of the population. By 2009, there were 2.2 million working age Australians with a disability and just half of those were employed. By comparison, nearly 80% of working age Australians without a disability were employed (Chart 1.1).

**Chart 1.1: Working age population by labour force status and disability status, 2009<sup>1</sup>**



Source: Australian Bureau of Statistics

The key difference reflects that people with disabilities are much less likely to participate in the labour force than people without disabilities, and when they do participate, the unemployment rate for people with disabilities is around 1.5 times higher than for people without disabilities.

<sup>1</sup> The graph shows that 4% of people with and without disabilities are unemployed. This is not the unemployment rate, which is defined as the number of people who are unemployed as a proportion of the total number of people who are either employed or unemployed; 'not in labour force' is defined as people who are not employed and not actively looking for work.

As outlined in the National Disability Strategy 2010-2020 (NDS, 2011), “the vast majority of people with a disability can, and do want to work and be as financially independent as possible”. Many people with disabilities, as well as families and carers, are currently missing out on the opportunity to participate in employment. Those that are excluded tend to have a lower standard of living and less financial control. Employment is also important in achieving social inclusion and contributes to physical and mental health, personal wellbeing and a sense of identity and self worth (NDS, 2011).

In addition to the individual and family benefits, there is also a strong economic imperative to increase labour force participation and help to address Australia’s impending labour shortages, while at the same time, reducing fiscal pressures associated with welfare dependency.

Australia’s strong economic performance has driven the unemployment rate down to a historically low level and the ageing of the population is also placing pressure on Australia’s labour supply, with fewer working-age people to support retirees and younger Australians (2010 Intergenerational Report; IGR). These trends are expected to continue throughout the decade, with Australia’s growing labour shortages becoming an increasingly important challenge for future growth prospects.

Increasing the opportunity to participate in the labour market among under-represented groups, including people with a disability, is a logical part of strategies to address the looming mismatch between labour demand and supply. Investment will need to be made to remove the longstanding and entrenched structural barriers to employment for people with disability. People with disability have not historically benefited from Australia’s periods of economic growth. Improving employment outcomes for people with disability has the potential to enhance their quality of life and independence and at the same time ease the increasing cost to the government of economic dependency.

Whilst there should always be an economic safety net for those who need it, many people with disability have a strong desire to work, achieve economic independence and share in the wealth of Australia.

### **Barriers to employment participation for people with disabilities**

In recognition of the challenges faced by people with disabilities, the Australian Government released the National Disability Strategy 2010-2020 aimed at improving life for Australians with disability, their families and carers (NDS, 2011).

One of the key policy areas identified in the strategy is the need to identify and address the barriers faced by people with disabilities that are preventing them from accessing employment opportunities.

Community consultations conducted during the development of the NDS found that negative attitudes and misconceptions about disability by employers was an important barrier to employment. This was consistent with a 2005 inquiry by the Human Rights and



Equal Opportunities Commission, which identified a number of barriers to employment including:

- employer concerns about the potential risks associated with employing a person with disabilities;
- employer concerns about costs associated with hiring and retaining a person with a disability; and
- a lack of easily accessible and comprehensive information and advice to assist employers.

Contrary to these concerns, a paper by Gaffam *et al* (2002) on the costs and benefits of employing people with disabilities found that the cost of recruiting an employee with disabilities was generally lower, productivity was equal or greater than other workers in the vast majority of cases, and most workers with a disability exhibited better attendance and lower occupational health and safety incidents than those without a disability.

The NDS consultations also found that people with disabilities were frustrated at having to rely on the Disability Support Pension (DSP) despite having the ability and willingness to work. The high costs associated with living with a disability and lack of support required to move off the DSP left many people with disabilities feeling trapped. Lack of opportunity in the education system was also identified, which has important implications for future job prospects.

Improving access to transport, the built environment, as well as education, training and support are integral in providing opportunities for people with disability to access employment.

There has already been some progress. Employment support services for people with disability have been operating since 1986; however, until 2010, there were limited places available. In 2010 the Federal Government revised the programme and 'uncapped' the number of places available, which resulted in a 41% increase in the number of current Disability Employment Service participants at 31 July 2011 compared to 31 Dec 2009.

While the average number of monthly referrals to DES has remained steady, the proportion of commencements to referrals has increased from 64% to 74%. Results also show an increase in 13 week employment outcomes of 52% and 26 week employment outcomes of 28% compared to the previous disability employment programs (based on 12 month outcomes from March 2009 to February 2010 compared to August 2010 to July 2011). This is a positive result given the revised program made it more difficult for providers to claim an employment outcome.

Although it is still early days in terms of data, it appears that outcomes have improved under the revised Disability Employment Services program.

The Business Council of Australia indicates that structural unemployment, non-participation and chronic disease are key issues and they need new solutions. These solutions will need to be more sophisticated and will require a multi-disciplined approach to tackling long term

unemployment and raising workforce participation to improve how the labour market operates.

Changes to the Disability Support Pension announced in the 2011/12 Budget will also help facilitate increased hours worked by people with disability without fear of loss of their Pension entitlements. Additional subsidies for employers were also announced in the 2011 Budget, though at this stage it is unclear under what circumstances these subsidies are offered.

This report shows that closing the gap between labour market participation rates and unemployment rates for people with and without disabilities by one-third is a realistic and achievable target. It also shows that there are large economic benefits associated with improved employment outcomes for people with disabilities.

Australia is moving in the right direction, but further policy initiatives will be necessary to achieve this target. More needs to be done to address employer concerns and provide relevant, effective and economical programs to assist people with disabilities.

## 2 Disability and the labour market

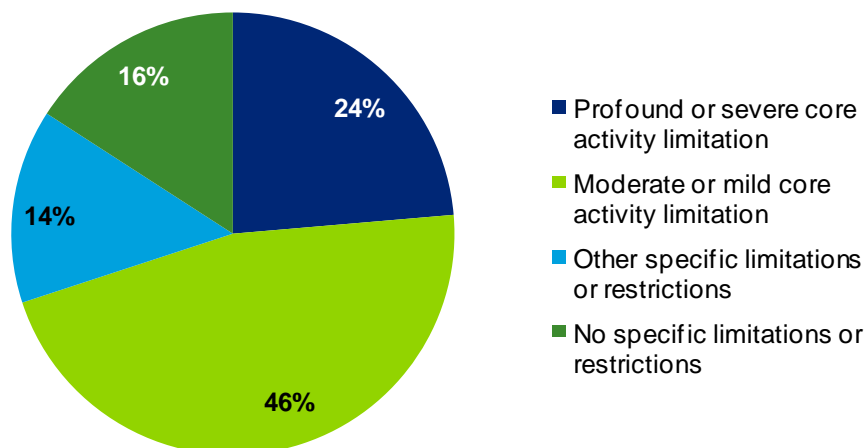
This chapter sets out the current disparity in labour market outcomes between Australians with disabilities and those without disabilities. It looks at the variation in labour market outcomes across different types of employment restrictions, and explores some of the issues surrounding these differences. Because the report is focused on improving labour market outcomes, the statistics presented relate to the working age population (defined here as 15-64 years).

### 2.1 Prevalence of disability

According to the Australian Bureau of Statistics (ABS) Survey of Disability, Ageing and Carers (SDAC), 2.2 million working-age Australians had a disability in 2009, which represented around 15% of the working age population.

In the SDAC, and in this report, the term *disability* encompasses a diverse range of conditions which impact on peoples' everyday lives in a variety of different ways (Chart 2.1). 70% of working age people with a disability had limitations on core activities, with around one-third having a profound or severe limitation and two-thirds having a moderate or mild limitation. Of the remaining 30%, around half had a specific limitation or restriction and half reported no specific limitation.

Chart 2.1: Disability status for working-age population, 2009



Source: Australian Bureau of Statistics

**Figure 2.1: Definition of disability**

The data in this report is based on the ABS Survey of Disability, Ageing and Carers (SDAC) which was last conducted in 2009. All of the labour force statistics refer to people aged between 15 and 64 who are living in households, and exclude people living in cared-accommodation. The data is collected from a survey of people with disability and thus depends on a respondent's perception of their ability to perform a range of activities associated with daily living.

'Disability' is defined by the ABS as 'any limitation, restriction or impairment which restricts everyday activities and has lasted or is likely to last for at least six months. This includes:

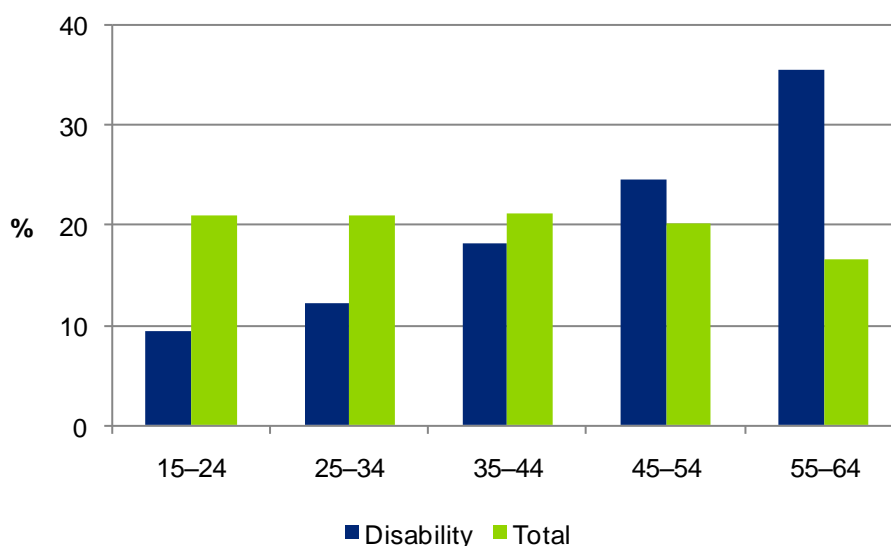
- loss of sight (not corrected by wearing glasses or contact lenses)
- loss of hearing, that restricted communication or resulted in the use of an aid
- speech difficulties
- chronic or recurring pain or discomfort causing restriction
- shortness of breath or breathing difficulties causing restriction
- blackouts, fits or loss of consciousness
- difficulty learning or understanding
- incomplete use of arms or fingers
- difficulty gripping or holding things
- incomplete use of feet or legs
- a nervous or emotional condition causing restriction
- a restriction in physical activities or in doing physical work
- a disfigurement or deformity
- mental illness or condition requiring help or supervision
- long-term effects of head injury, stroke or other brain damage causing restriction
- receiving treatment or medication for another long-term condition or ailment, and still restricted in everyday activities
- any other long-term condition resulting in a restriction.' ABS 2011.

Disability affects people of all ages. While the prevalence of disability increases with age, the incidence of disability for younger age groups is still significant: 8% of people aged between 15 and 35 have a disability. Younger people are also at the same risk of mental and behavioural disorders as the rest of the working-age population. Indeed, nearly 40% of 15-24 year olds with a disability have a mental and behavioural disorder as their main condition. The Organisation for Economic Cooperation and Development (OECD) has identified people with mental illness in Australia as a group needing significant additional support to allow them to actively participate in employment (OECD, 2007).

It is crucial that young people with a disability receive the support required to participate in the workforce as early as possible to drive effective long-term employment outcomes and

maximise the benefits of improved standards of living and social inclusion that come with employment.

**Chart 2.2: : Proportion of the working-age population by age group**



Source: Australian Bureau of Statistics

The proportion of the working age population with disability has held fairly stable over the past decade. However, it is likely to increase in the period ahead as a result of demographic trends associated with the post-war ‘baby-boom’ and subsequent decline in birth rates. This will result in an increase in the median age of Australia’s workforce (Australian Government, 2010) due to the correlation between age and disability (Chart 2.2). With the imminent extension of retirement ages, the proportion of working-age people with a disability is likely to climb.

## 2.2 Labour market outcomes

The diversity of types of disabilities that people face places a range of restrictions on employment. While some people are able to work without any restrictions, others cannot work in certain types of jobs, require adjustments to their work environment, or are unable to work at all.

Almost three-quarters of the 2.2 million working age people with a disability are able to work, with the remaining 27% reporting that they are permanently unable to work (Table 2.1). However it is likely that environmental factors are playing a role in preventing employment participation for a significant number of people. With greater support for people with disability to enter the workforce, it is likely that at least some people who are currently unable to work will be able to work in the future.

**Table 2.1: Labour force status by employment restriction, 2009**

	Total population		Not in labour force		Unemployed		Employed	
	No. '000	%	No. '000	Par rate (%)	No. '000	Rate (%)	No. '000	Rate (%)
Able to work	1,581	73	402	75	92	7.8	1,086	68.7
<i>With restrictions</i>	902	41	209	77	73	10.5	621	68.9
<i>Without restrictions</i>	679	31	194	71	20	4.0	465	68.5
Permanently unable to work	590	27	590	--	--	--	--	--
<b>All with reported disability</b>	<b>2,171</b>	<b>100</b>	<b>993</b>	<b>54</b>	<b>92</b>	<b>7.8</b>	<b>1,086</b>	<b>50.0</b>
No reported disability	12,548		2,156	83	529	5.1	9,863	78.6

Source: Australian Bureau of Statistics

Note: Explanations of the participation rate, unemployment rate and employment rate are set out below.

For people that are able to join the workforce, over half (58%) have disabilities that place some sort of restrictions on their employment, including restrictions in the type of work or number of hours, or requirements for additional leave, special equipment, modifications and assistance.

Among the types of employment restrictions recorded in the SDAC, the most common restriction is the type of work that can be performed, which is reported by half of all people with disability who are able to work. Well under half of those with disability who are able to work need special employer arrangements, like equipment, modifications or supervision (15%), or are restricted in the number of hours that they can perform (30%). While employer support and flexibility are issues that need to be better addressed, these figures are also consistent with the finding in the NDS consultations that employer misconception is a major obstacle for people with disability.

The following sections discuss labour force participation, unemployment and employment outcomes for people with disability.

### Labour force participation

The **labour force** refers to people that are working or willing to work. It consists of people who are both employed and unemployed.

For the purpose of this report, the **participation rate** represents the percentage of the working-age population that are participating in the labour force, either by working or searching for work.

A little over half (54%) of working-age Australians with disability were participating in the labour force in 2009, compared to a participation rate of 83% for working age Australians without a disability (Table 2.2). Further, this gap widened slightly compared to each of the past two surveys conducted by the ABS in 1998 and 2003.

The large disparity partly reflects that some people are unable to participate in the labour force as a result of their disability. According to the SDAC, around one-quarter (27%) of the working-age people with disability reported that they were permanently unable to work.

**Table 2.2: Participation in the labour force**

	% total disability	In labour force '000	Not in labour force '000	Participation rate %
All with disability	100	1,179	993	54
<i>Able to work</i>	73	1,179	402	75
<i>Unable to work</i>	27	--	590	--
No disability		10,392	2,156	83

Source: Australian Bureau of Statistics

For people with disability who are able to work, the participation rate is 75%, still significantly below that for people without disability. Further, a much higher proportion of people with disability who are employed are working part-time. As discussed below, these differences may reflect age demographics to some extent. However, lack of opportunities associated with education and training, as well as reluctance from employers, are also likely to be important barriers to increasing labour market participation (NDS, 2009).

## Unemployment

**Unemployed** people are defined as people that are willing to work but are not employed.

The **unemployment rate** represents the proportion of the labour force that is unemployed.

In addition to being less likely to participate in the labour force, people with disability who want to work are less likely to be employed than people without disability. The unemployment rate for people with disability was 7.8% in 2009, around one and a half times the unemployment rate for people without disability (5.4%). The unemployment rate is often an influential factor in a person's decision to join the labour force, and may be part of the reason why participation among people with disability is low.

There is some variation in the incidence of unemployment depending on whether people face employment restrictions. The unemployment rate for people with a disability who report an employment restriction is 10.5%, and it is even higher for certain types of restrictions<sup>2</sup>:

- 12% for people who listed one of their restrictions as the number of hours;
- 12% for people who listed one of their restrictions as the type of job;

<sup>2</sup> The NDAS survey allows people to list more than one employment restriction, and as a result, some people will fall into multiple categories.

- 22% for people who listed one of their restrictions as needing time off as a result of their disability; and
- 14% for people who listed one of their restrictions as needing other special employer arrangements like equipment or supervision.

These figures suggest that more needs to be done to accommodate people with employment restrictions in the workforce, including increased job flexibility and more support for people with specific restrictions.

By comparison, people with disability who face no employment restrictions have an unemployment rate of 4%, which is actually below the unemployment rate for people without disability. It is not clear why this group has been able to achieve such an impressive unemployment outcome. Labour market participation among this group is worse than for people without disability, suggesting that some people who cannot find a job may choose not to participate in the labour market. The outcome for this group may also reflect demographic factors, which are discussed further below.

## Employment

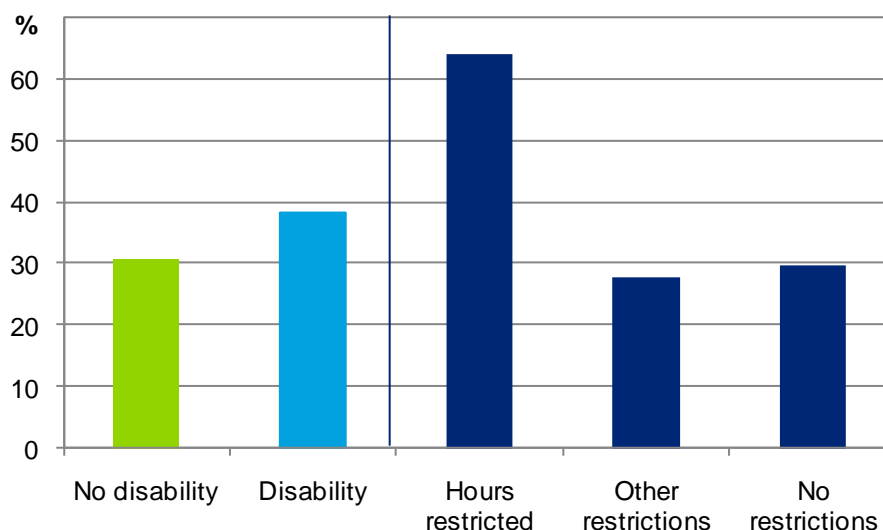
The **employment rate** represents the proportion of the total working age population that is employed.

Only half of working-age people with a disability are employed compared to 79% of people without disability (Table 2.1). This reflects that people with disability are less likely to be active in the labour force than people without disability, and those that are in the labour force are more likely to be unemployed, both of which have been discussed above.

People with a disability are also more likely to be working part time (38%) than people without disability (31%; Chart 2.3). However, the difference in the proportion of part-time workers is largely confined to people whose disability restricts the number of hours that they are able to work. For employed people whose hours are restricted, nearly two-thirds have a part-time job. By comparison, for employed people who are not restricted by the number of hours that they can work, roughly the same the proportion work part-time as for people without disability.



**Chart 2.3: Proportion of employed persons working part-time**



Source: Australian Bureau of Statistics

Across industries, people with disability are more likely to work in higher-risk jobs than people without disability, such as construction and agriculture (ABS, 2003). They are also more likely to work in certain sections of the services industry, such as education and cultural and recreation services, which is likely to reflect that these sectors have more flexible work practices and are more accommodating of individual differences.

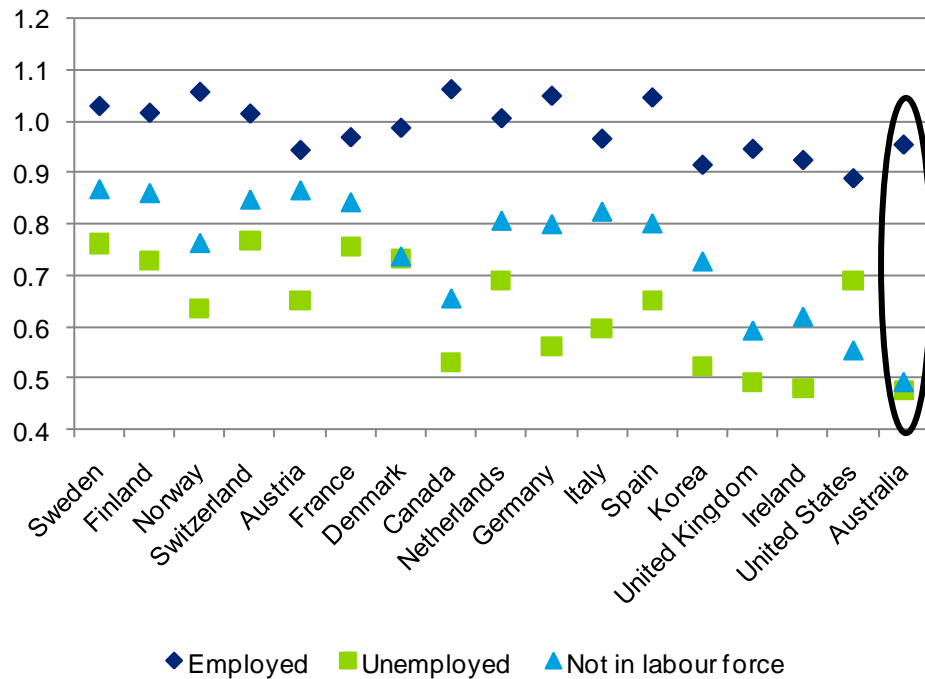
### Income

In line with these less favourable labour market outcomes, people with disability have a substantially weaker financial position. The average weekly income for a working-age person with a disability is \$344, nearly half that of a person without a disability (\$671).

Interestingly, data from the OECD from the mid-2000s shows that despite the weaker financial position overall, income for people with disability that are employed is only slightly below that for people without disability (Chart 2.4). In contrast, income for people with disability who are unemployed or not in the labour force is half of the average working age population, which is among the lowest in the OECD.

The OECD data indicating this strong financial outcome for people with disability who are employed is interesting for several reasons. It suggests that there are monetary incentives for people with disability to join the labour force, but that other barriers, such as employer stigmatisation and lack of support, are preventing more people with disability from working. It also suggests that the productivity of people with disability that are working is not significantly different from that of the general working age population. This is discussed further in the modelling section.

**Chart 2.4: Income levels of people with disability as a ratio of the average income of the working-age population, mid 2000s**



Source: Organisation of Economic Cooperation and Development, 2010

### 2.2.2 Demographic factors

Demographic differences between people with and without disability, unrelated to the disability itself, could account for some of the gap in labour market outcomes. In particular, the incidence of disability increases with age, leading to a greater proportion of older people with disability compared to the general proportion. Participation rates are often lower for people at the start and the end of their working lives, with the former often choosing to undertake further education and the latter moving into retirement. Similarly, unemployment rates vary with age. Unemployment is generally lower among older people due to their greater level of experience relative to younger workers.

Researchers in New Zealand (Jenson *et al*, 2005) examined the impact of disability on employment by taking into consideration demographic factors such as age, gender, ethnicity and education. The actual employment rate was 58% for people with disability at the time of the study and 77% for people without disability, a difference of 19 percentage points.

The study found that, based on statistics for the population without a disability, the expected employment rate for a population with similar demographic characteristics as those with disability but without a disability was 72%. This is 5% below the employment rate for the broader population without a disability of 77%. Therefore, most of the difference in employment outcomes – approximately 14% or three-quarters of the gap – is associated with the disability rather than demographics.

Assuming that demographic factors are similar in Australia and New Zealand, the majority of the difference in employment outcomes is due to either limited capacity or other removable barriers to employment. Whilst there are no data available to isolate the relative magnitude of these two effects, it is likely that the majority of the gap in labour market outcomes can be overcome, and there is substantial room for improvement in labour market outcomes.

## 2.3 Government support

Government support programs have important implications for employment outcomes through the incentives that they create for workforce participation. The primary support payment for working-age Australians with a disability is the Disability Support Pension (DSP). This payment is available to working age people who are 'unable to work for 2 years because of illness, injury or disability, or ... are permanently blind', and are not able to work for more than 15 hours per week (FaHCSIA, 2010).<sup>3</sup>

There were over 800,000 people receiving the DSP in mid-2011, representing 5% of Australia's working age population (Yeend, 2011). This number has more than doubled over the past couple of decades. Although this increase largely reflects population growth and a range of policy changes, the figures are nonetheless concerning. The NDS consultation paper (NDS, 2009) confirms that there are a significant number of people receiving the DSP who do want to work but feel that they cannot access the support that they need to move into employment.

Less than 10% of people on the DSP earn an income and close to half of those that do have earnings receive less than \$250 per week. While there are some differences in disability benefit schemes around the world, across OECD countries an average of 30% of people receiving disability benefit payments earn an income (OECD, 2003).

The costs associated with the disincentives to work that are created by the DSP are large. At an economy-wide level, the increase in payments puts pressure on government finances. The DSP cost an estimated \$13.8 billion in FY2011/12, representing around 1% of Australia's GDP (Yeend, 2011). It is in everyone's interest to ensure that the DSP provides a safety net to those in need while at the same time remaining fiscally sustainable.

The personal costs are also substantial. The average duration on income support for people receiving the DSP is around 10 years. People that are dependent on welfare or do not participate in the workforce for extended periods of time are at high risk of poverty and social exclusion. Young people are particularly at risk of being caught in welfare dependency trap. In 2010, close to 87,000 recipients of the DSP – over 10%– were under the age of 30.

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<sup>3</sup> Changes announced in the 2011 budget will allow DSP recipients aged 35 and under to work for 30 hours a week without their payments being affected.

Reforms announced in the 2011/12 budget should go some way to reducing the disincentives and assist people to return to the workforce. These include:

- new participation requirements for DSP recipients under the age of 35 with some capacity to work;
- fast tracking new rules that require new DSP applicants to receive employment assistance to obtain or return to work before they can apply for DSP;
- more generous rules for existing DSP recipients to encourage them to work more hours; and
- encouraging employers to take on more DSP recipients through new financial incentives.

The government has also recently announced that there will be changes to eligibility rules to come into effect at the start of 2012. An estimated 40% of people currently eligible for the DSP would fail to qualify under the new rules, which will shift the focus for assessment towards the impact of a person's disability on their capacity to function and work. This is a positive reform that will see the DSP directed to those that are most in need, but should be accompanied by more support for people with disability and employers to assist people that are no longer eligible for the payment to enter the workforce.

These measures are a useful start. Further initiatives need to focus on ensuring that jobs are available for everyone that wants to work, and adequate support for people with disability and employers is provided.

## 3 Modelling the impact of increased employment participation

The discussion in this chapter focuses on the methodology and findings of the general equilibrium modelling used to estimate the impact on output if a higher proportion of people with a disability entered the workforce.

The modelling does not address the policy measures needed to achieve these outcomes or the costs associated with doing so. Rather, the aim of the modelling is to present the potential economic benefits associated with increasing employment participation for people with disability and provide a reference point for future discussion on the issue.

### 3.1 Labour market scenarios

There are two scenarios explored in this report:

1. **The participation rate for people with disability increases by 10 percentage points to 64%.**

This is equivalent to the gap between the participation rate for people without disability (84%) and with disability (54%) closing by one third.

2. **In addition to Scenario 1, the unemployment rate for people with disability declines by 0.9 percentage points to 6.9%.**

This is equivalent to the gap between the unemployment rate for people with and without disability also closing by one third.

These are realistic and achievable targets, and indeed could be seen as conservative. New Zealand had reached a participation rate of 64% in 2006, while many Nordic countries have also achieved and exceeded these targets. Trends towards more flexible workplace arrangements should assist people with disability to move into the workforce and increase the amount of hours that they are able to work.

This approach is also more conservative than other research in this area. A paper by the International Labour Office (ILO; Buckup, 2009) estimates the economic cost of excluding people with disability from employment for ten developing countries in Asia and Africa. The calculation assumes that people with disability could achieve the same participation rate and unemployment rate as those without disability, and that people with disability that are employed could increase their productivity by 20%.

A previous study published by the Rioux (1998) estimated that the annual GDP loss related to disability in Canada by multiplying the number of people with a disability adjusted for the amount of time individuals were affected by the disability and the average value of labour force work adjusted for wage supplements and unpaid work. Assuming that all

people with a disability moved into work, and making an adjustment for productivity of between 10% and 90% below the average worker depending on the severity of the disability, the study found that the economic cost of disability totalled 7.7% of GDP.

## 3.2 Modelling assumptions

The following sections discuss each of the assumptions that underlie these scenarios.

### 3.2.1 Participation rate assumptions

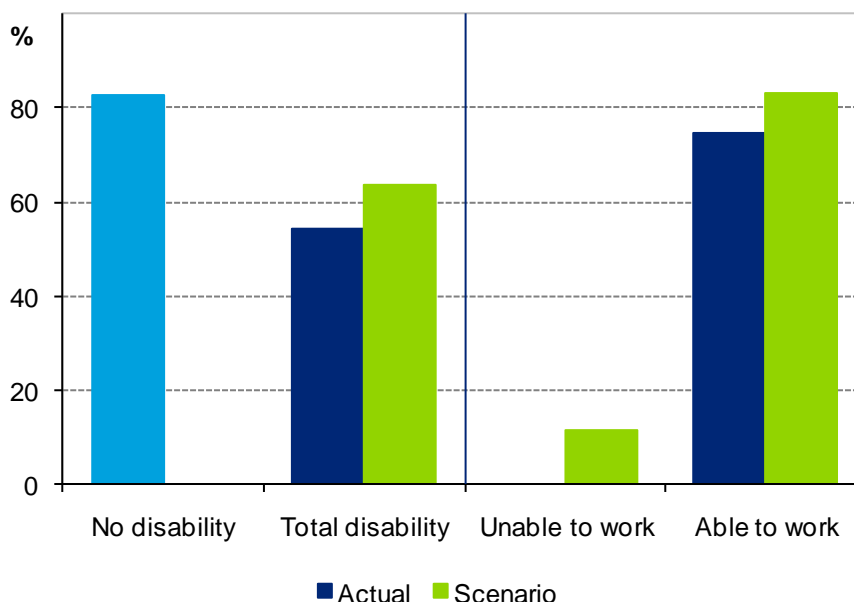
As outlined above, there were 2.2 million working-age people with disability in Australia in 2009. With the participation rate at 54%, this implies that 1.2 million were in the labour force – either working or looking for work – and the remaining 1.0 million were not actively engaged in the labour force.

**An increase in the participation rate by 10 percentage points to 64% implies that 207,000 people who are not currently active in the labour market would move into the labour force.**

Underlying this scenario, we assume two-thirds of the 207,000 increase in the labour force currently classify themselves as able to work, and one-third currently classify themselves as unable to work.

This implies that the participation rate for people with disability who are able to work increases from 75% to 83% in line with that of people with no disability, and just over 10% of the 590,000 people that currently classify themselves as unable to work move into the labour force (Chart 3.1). As discussed above, it is likely that some people are currently unable to participate because they do not receive the level of support that would be required for them to maintain employment. If these environmental factors are addressed, it is feasible that a significant number of people could access employment that previously did not have that opportunity.

**Chart 3.1: Participation rate under modelling scenario**



Source: Australian Bureau of Statistics, Deloitte Access Economics estimates

We assume that the increase in participation is achieved throughout the next decade and is spread evenly over the period. This implies that 20,700 people become engaged in the labour force each year.

### 3.2.2 Employment assumptions

There are separate employment assumptions for each of the two scenarios:

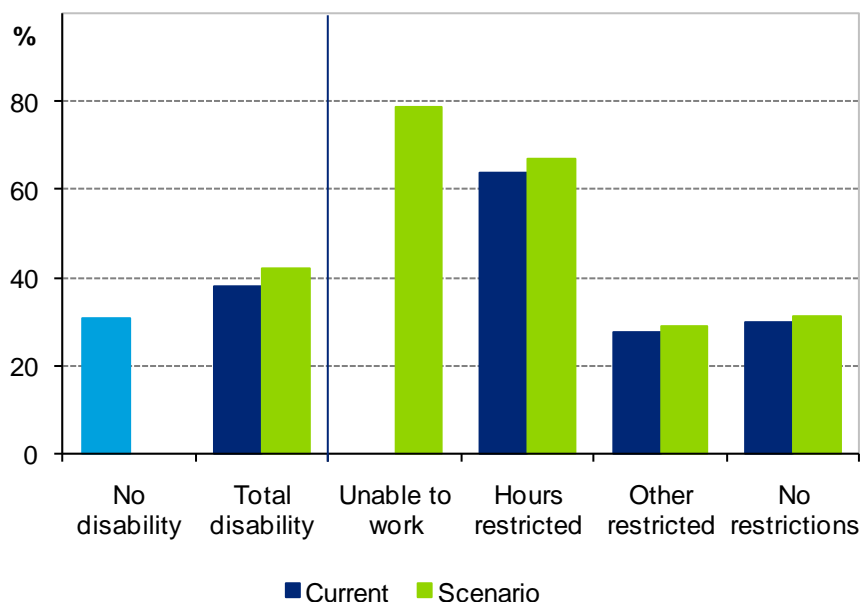
- Scenario 1:** The first scenario assumes that the unemployment rate for people with disability is unchanged at 7.8%. This implies that, of the additional 207,000 people entering the labour force, **191,000 people will secure employment.**
- Scenario 2:** Scenario 2 assumes that the unemployment rate for people with disability is lowered from 7.8% to 6.9%.

The reduction in the unemployment rate implies that, of the 1.4 million people with disability in the labour force under this scenario (including the 207,000 new entrants), an additional 20,000 people would secure employment. Overall, this implies that **employment would increase by 203,000 people under this scenario.**

#### Part-time and full-time employment

For both scenarios we conservatively assume that the proportion of new people entering the workforce that will work part-time is 64%, which is the same as the percentage of people with restricted hours that are currently working part-time. This assumption reflects that the people moving into employment are more likely to have a disability that restricts the number of hours that they are able to work than people who are already employed.

**Chart 3.2: Proportion of employed people working part-time**



Source: Australian Bureau of Statistics, Deloitte Access Economics estimates

A high proportion of people who currently classify themselves as unable to work are likely to be restricted in the number of hours that they can work (Chart 3.2). Likewise, people moving into the labour force who are currently able to work are also expected to be slightly more likely to work part-time than those already in the labour force. As a result, the aggregate proportion of employed people with disability that work part time would increase from 38% to 42%.

For the purpose of the modelling, full-time equivalent employment (FTE) is calculated for each scenario based on an adjustment to the total employment number to reflect this full-time/part-time split. The method for calculating FTE is illustrated in Figure 3.1.



**Figure 3.1: Method for calculating full-time equivalent (FTE) employment**

The scenarios in this report assume 64% of people who become employed will work part-time:

- For scenario 1, of the 191,000 people entering employment, 69,000 are assumed to be employed full-time and 122,000 employed part-time.
- For scenario 2, of the 203,000 people entering employment, 76,000 are assumed to be employed full-time and 127,000 employed part-time.

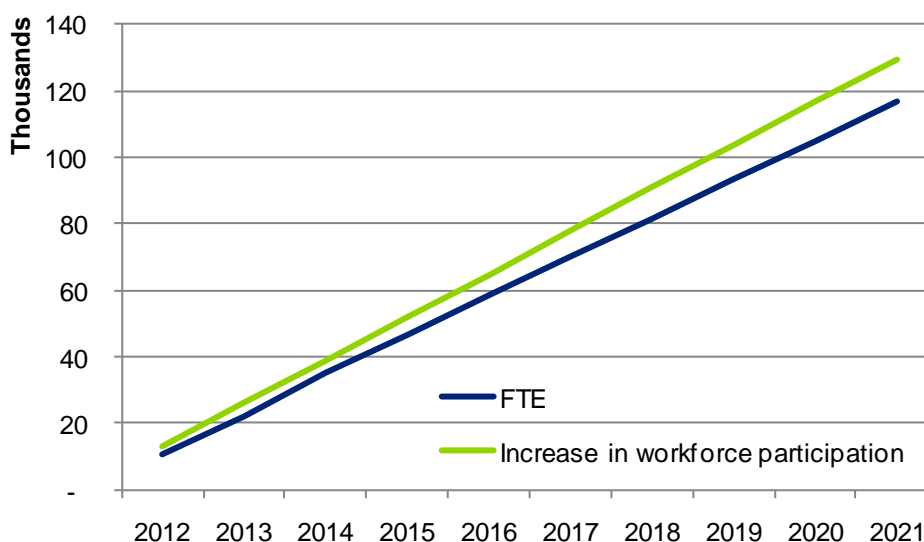
Full-time equivalent (FTE) employment levels are estimated on the basis that a part-time worker works half as many hours as a full-time worker (assuming that the part-time hours per week are normally distributed). The calculation is therefore:

- For scenario 1:  $69,000 \times 1 + 122,000 \times 0.5 = 129,000$

- For scenario 2:  $76,000 \times 1 + 127,000 \times 0.5 = 139,000$

Chart 3.3 compares the increase in participation and the increase in FTE employment for Scenario 1.

**Chart 3.3: Labour supply impact for Scenario 1, 2012 - 2021**



Source: Deloitte Access Economics estimates

As outlined in Figure 3.1, Scenario 1 assumes an increase in employment of 191,000 people over and above the baseline over a 10 year period, and an increase in FTE employment of 129,000 people. This represents a 1.0% increase in FTE employment relative to the baseline over the next 10 years.

With a reduction in the unemployment rate under Scenario 2, in addition to the increase in participation, the assumed increase in employment is slightly larger. Under this scenario, employment increases by 203,000 and an FTE employment increase of 139,000.

### 3.2.3 Productivity assumptions

It is assumed that the **productivity of people with disability entering the workforce is 80% of that for people that are already in the workforce**. This assumption is slightly more optimistic than a report from the Productivity Commission which found that the initial wage offered to those on the Disability Support Pension who are entering the work force is 66% of the wage received by those that are already in the workforce (compared to about 75% for those on job search allowances).

The assumption, however, is consistent with results from a paper by Gaffam et al (2002) which found that 90% of employees with disability are equally or more productive than other workers. It is also broadly consistent with the OECD finding that people with disability in Australia earn a similar level of income to those without disability, suggesting that productivity of people with disability that are in the workforce is broadly in line with that of people without disability.

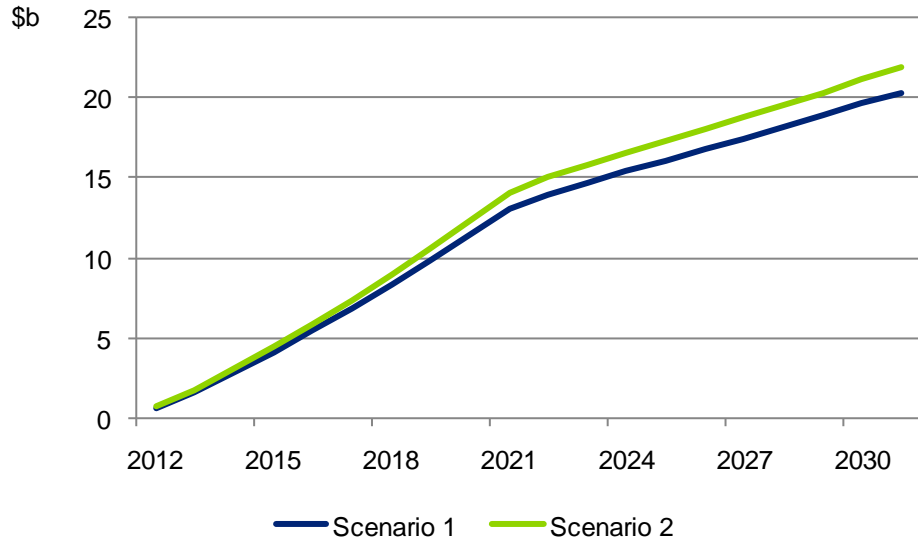
Over time, as people gain experience in the workforce, their productivity is likely to converge towards the average for the workforce. The model assumes that over the first two years in the workforce, productivity increases linearly from 80% to 90% and remains at 90% for the remainder of the forecast horizon.

## 3.3 Results

The modelling results suggest that Australia will forego substantial economic benefits if the labour market disadvantages faced by people with disability are not addressed:

- Under Scenario 1, the increase in workforce participation would result in a cumulative **boost to Australia's GDP of a \$40 billion** in the next decade (Table 3.1).
  - By 2021 GDP is estimated to be \$13.0 billion above the reference case, and by 2031 – 10 years after the participation gap has been reduced – GDP is \$20.3 billion higher, or 0.79% above the reference case.
  - In today's terms, this is equivalent to an increase in 2011 GDP of \$11 billion.
- **If unemployment was also reduced**, Scenario 2 suggests that **GDP could increase by an additional \$43 billion** in the coming decade.
  - Under this scenario, GDP is predicted to \$ 14.0 billion above the reference case after 10 years, and \$21.9 billion higher, or 0.85%, after 20 years.
  - This is equivalent to an increase in 2011 GDP of \$12 billion.

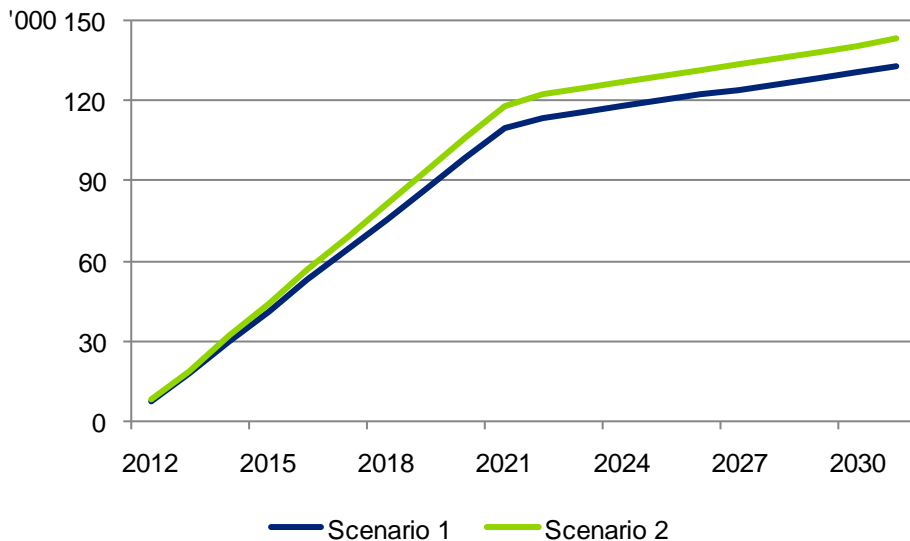
**Chart 3.4: Increase in GDP relative to baseline**



Source: Deloitte Access Economics estimates

For both scenarios, the results are driven by a higher number of productive resources at the disposal of Australian businesses producing higher levels of employment and output in the economy. GDP and employment increase substantially over the first 10 years as the labour supply receives an additional boost from the increased number of people with disability entering the labour force (Chart 3.4; Chart 3.5).

**Chart 3.5: Increase in FTE employment relative to baseline**



Source: Deloitte Access Economics estimates

**Table 3.1: Annual impact of Scenarios 1 and 2 on output and employment**

	2016	2021	2031
<b>Deviation from base case</b>			
<b>Scenario A</b>			
GDP %	0.34	0.70	0.79
FTE Employment %	0.50	0.96	0.99
<b>Scenario B</b>			
GDP %	0.37	0.75	0.85
FTE Employment %	0.54	1.04	1.06
<b>Impact</b>			
<b>Scenario A</b>			
GDP \$b	5.4	13.0	20.3
FTE Employment '000	52.6	109.7	132.9
<b>Scenario B</b>			
GDP \$b	5.9	14.0	21.9
FTE Employment '000	56.6	118.1	143.1

Source: Deloitte Access Economics estimates

After 2021, labour supply growth slows to the base case scenario and employment deviation from the base case stabilises at around 1% above the base case. However, GDP continues to grow at a faster pace than the base case between 2021 and 2031 as the economy adjusts to the boost in employment.

## 4 Conclusions

Improving employment opportunities for people with disability is a critical element for enhancing the quality of life for individuals with disability, their families and carers, but there are also substantial gains for the broader economy.

The modelling in this report shows that if the gap between the participation rate and unemployment rate for people with and without disability could be reduced by just one-third, phased in over the next decade, the cumulative impact on GDP over the next decade would be \$43 billion. The modelling also suggests that GDP will be around 0.85% higher over the longer term, which is equivalent to an increase in GDP in 2011 of \$12 billion. This is only the direct impact on GDP, and does not include the indirect impact of improved government fiscal balances. Nor does it include the broader welfare gains for the individuals that secure employment, and their families and carers.

Foreshadowing the likely policies and programs required to achieve these outcomes was outside the scope of this report. However, the modelling results demonstrate that the economic payoffs are large, and there are clear benefits in government taking steps to alleviate the labour force disadvantages faced by people with disability.

The Australian Government has announced some changes to the disability support pension that should help to increase labour force participation for people with disability, including an increase in the number of hours that can be worked while receiving the DSP and some subsidies for some employers who hire people with disability.

However, further initiatives by government and business will be necessary to achieve a significant improvement in labour market outcomes for people with disability. More needs to be done to address employer concerns and provide relevant, effective and economical programs to assist people with disability.

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