THE BILLION + DOLLAR OPPORTUNITY

In 2016 Workbridge commissioned the attached research from Allan and Clark to analyse potential gains from increasing the employment of disabled people in New Zealand. The modelling, using the most conservative assumptions possible, showed the huge potential returns from achieving equal employment rates for disabled and non-disabled people.

The increase in GDP (in $2016) was estimated to be $1.1 billion a year more than eight times the placement costs required. In addition, there were significant fiscal benefits - the increased tax revenue and welfare savings more than offset the investment required.

The potential increase in GDP is just a proxy which understates for the potential societal benefits in two ways. Firstly, adjusting for population changes (17%) and increased wages (34%), $1.1 billion a year in $2016 could between $1.3 and $1.5 billion in 2025. Second employment and the social connection it provides, are the key to better life chances. Work provides self-esteem and social contact as well as increased income. Together these provide the catalyst that enables the transition from disengagement to wellbeing.

10 years on the Billion + Dollar Opportunity remains on the table. Currently around 44% of disabled people are employed compared to 85% of non-disabled people so disabled people have half the chance of getting a job. There remains is a large often hidden talent pool of disabled people that is both willing and able to take up employment. In the face of an aging population, this is an opportunity New Zealand should not pass by.

Going forward the Workbridge Foundation is committed to realising the Billion + Dollar opportunity. We are delighted to see the Disability Strategy focuses on increasing employment opportunities for people with disabilities.

Labour markets are like scissors where one blade reflects supply, the other reflects demand, and the hinge works to match supply and demand. Our Public Good Programme is looking at the supply side, using the Integrated Data Infrastructure, to understand labour market participation by disabled people. Looking at the demand side, we are focused on addressing attitudinal barriers amongst employers to employing people with disabilities and what is required to shift the dial to labour force engagement by people with disabilities. Future research will look at what is needed to better match supply and demand. These activities aim to help reduce the unemployment and underemployment rates for disabled people which remains so stubbornly high in New Zealand.

A BILLION-DOLLAR OPPORTUNITY: THE POTENTIAL BENEFITS OF EQUAL EMPLOYMENT FOR DISABLED PEOPLE IN NEW ZEALAND IN 2016

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PURPOSE

This paper examines the low labour market participation of disabled people in New Zealand including the associated economic, fiscal, and social costs and the potential benefits of increasing participation. The paper also reviews some of the barriers that contribute to low labour market participation of disabled people.

The paper is organised into five sections:

- **Section 1** examines the scope of the problem of low rates of employment for disabled people in New Zealand using data from the 2013 Disability Survey
- **Section 2** reviews the associated fiscal, economic, and social costs to New Zealand of the low rate of employment for disabled people
- **Section 3** discusses some explanations for the low employment of disabled people and the barriers disabled people face to working
- **Section 4** reviews the potential cost and returns of reaching equal employment rates between disabled and non-disabled people
- **Section 5** concludes the paper with some recommendations

1. DISABLED PEOPLE NOT IN WORK – THE SCOPE OF THE PROBLEM

DISABLED PEOPLE ARE AN INCREASING PROPORTION OF THE POPULATION AND THE LABOUR FORCE

In New Zealand, people with disabilities represent an increasing proportion of both the total population and the labour force. In 2013, the number of disabled people reached a high of 1.1 million individuals, equivalent to nearly a quarter of the total population, up from 20% in 2001. As a result, people with disabilities now make up one in every six people of working age in New Zealand. This means that 17% of all New Zealanders aged 15-64 years are disabled.[1]

The rise in the disabled population is significant for the New Zealand economy, as this group continues to have poorer labour market outcomes than those without a disability. While three-quarters (76%) of non-disabled working aged people had a job in 2013, only 61% of disabled people were in employment[2].

[1] For the purposes of the Disability Survey, Statistics New Zealand defines some as disabled if they report having a long-term impairment that affects their ability to carry out day-to-day activities. They define "long-term" as being six months or more and "limiting effect" as a restriction or lack of ability to perform.

[2] Statistics New Zealand (2014)

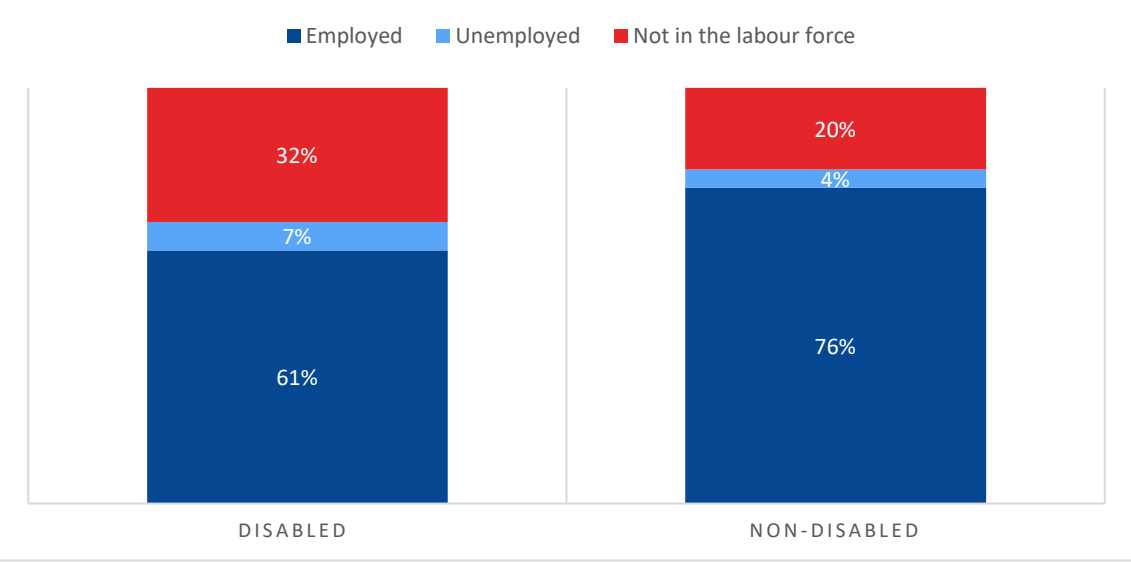
DISABLED PEOPLE HAVE CONSISTENTLY HAD POORER LABOUR MARKET OUTCOMES THAN NON-DISABLED PEOPLE

The difference in employment rates between disabled and non-disabled groups reflects the confluence of two other labour market trends: disabled people are less likely to participate in the labour force (either by being in work or actively looking for work); and if they are in the labour force, they are much more likely to be unemployed. At the time of the 2013 Disability Survey, the unemployment rate for disabled people was almost twice that of non-disabled people (10.1% compared with 5.3%) and the proportion of disabled people not in the labour force was over 1.5 times greater than that for non-disabled people (see Figure 1).

The outcome of these trends is that at last count, there were 228,000 disabled people of working age who were not in work, 188,000 not in the labour force and 40,000 who were unemployed and looking for work[3].

For comparison, this group is equivalent in size to almost 10% of the total New Zealand labour force (those in a job or looking for one) in 2013.

Figure 1: Working age population by labour force and disability status



Source: Allen + Clarke calculations using data tables from Statistics New Zealand (2014)

DISABLED PEOPLE HAVE THE WILLINGNESS AND ABILITY TO WORK

While some disabled people have impairments which impact the type and amount of work they can do, the vast majority have both the ability and the desire to work, particularly where they are supported to do so. The Disability Survey found that most disabled people who were not in work were involuntarily unemployed, with around three-quarters (74%) reporting they would like to work if a job was available[4].

[3] Statistics New Zealand (2014)

[4] Ibid

Given the willingness of disabled people to take up employment, the ongoing disparities in labour market outcomes between disabled and non-disabled New Zealanders likely reflect barriers to employment and a need for more job placement and support services.

2. THE LOST OPPORTUNITY OF LOW LABOUR MARKET PARTICIPATION OF DISABLED PEOPLE

The low participation of disabled people in the labour market incurs significant economic, fiscal, and social costs that fall on both the disabled individuals affected and to the country as a whole. It also represents a lost opportunity for New Zealand businesses to capitalise on the strengths of this hidden talent pool and for these people to achieve their individual aspirations.

This section quantifies some of these costs from the information currently available.

2.1 FISCAL COSTS FROM BENEFIT SUPPORT

DISABILITY RELATED BENEFITS INCUR HIGH COSTS OVER A LONGER PERIOD OF TIME

One effect of the poorer employment outcomes experienced by disabled New Zealanders is that a large number of them must seek income support from the government.

While disabled New Zealanders are entitled to a number of support payments depending on their circumstances, the two primary forms of income support offered by the government are the Supported Living Payment (formerly the Invalid's benefit) and the health condition/disability sub-set of the Jobseeker Support benefit (formerly the Sickness Benefit).[5] These benefits provide income support to disabled individuals or their full-time carers who are not in work in connection with a permanent or temporary impairment respectively.

Following the benefit changes in 2013, actuarial reports are commissioned annually by the Ministry of Social Development to analyse the stock and flows of individuals on particular benefits and estimate the life-time costs of these entitlements.

As of the latest accounting in June 2014, the number of individuals receiving the Supported Living Payment benefit totalled 85,840 (excluding the 16,650 individuals who receive it for being full-time carers/ partners of disabled people).

A further 65,717 were on the Job Seeker benefit with a health condition or disability, bringing the total number of individuals on a sickness or disability related main benefit to 151,557, or over a quarter of those receiving a benefit.[6]

[5] A concise discussion of the various benefit types available and their forms prior to 13 July 2013 can be found in the *Work and Income 2013 Benefit System Performance Report for the year ended 30 June 2013*, p 11.

[6] See Taylor Fry (2014)

The relatively long average duration of disability-related benefits make them some of the most expensive beneficiaries after those for youth and sole parents. Disabled people receiving the Supported Living Payment, for example, pass an average of 13 years on the benefit with an average lifetime cost of $173,000 per person.

As a result, while the individuals receiving disability-related benefits (excluding carers and partners) represent 26% of all beneficiaries, they account for 38% of the government's total benefit liability.

FEWER DISABLED PEOPLE EMPLOYED MEANS A REDUCTION IN TAX REVENUE

In addition to the fiscal cost of disability-related benefits, the high number of disabled New Zealanders who are not in work means the government must forgo the tax revenues these individuals could generate. Given the paucity of disability information available, it is difficult to estimate the size of this forgone revenue. However, assuming a median income for disabled people of $40,000, the forgone tax revenues from the 228,000 disabled people not in employment amount to over $1.3 billion a year.[7]

If disabled people had the same rate of employment as non-disabled people, an additional 88,000 disabled people would be in work, generating over half a billion dollars in tax revenues each year.

While these calculations are at a basic level, they offer a sense of the scale of the fiscal costs incurred by low labour market participation by disabled people.

2.2 ECONOMIC COSTS OF LOST PRODUCTION AND CONSUMER SPENDING

In addition to the fiscal costs of disability-related benefits and forgone tax revenue, the low employment of disabled people results in economic losses to the overall economy in terms of lost production and consumer spending these workers would generate.

While this paper does not attempt to model the additional GDP generated from a reduction in the rate of disabled people not in the labour force or unemployed, recent modelling in Australia and the UK suggests that the GDP gains from even modest increases in employment by disabled people would be significant.

A 2011 report published by Deloitte found that a one-third reduction in the gap between labour market participation and unemployment rates for those with and without disabilities would result in a cumulative increase of $43 billion to Australia's GDP in the following decade.[8]

Similar modelling carried out on behalf of Scope for the UK found that an increase in the disability employment rate of five percentage points would lead to an increase in GDP of £23 billion over the next 15 years, with a ten percentage point increase resulting in an increase of

[7] The tax an individual would pay on $40,000 of payroll income would be $6,020 according to the IRD tax calculator, available online at https://www.ird.govt.nz/calculators/

[8] See Deloitte (2011)

£45 billion over the same period. These increases would be equivalent to 0.9% and 1.7% of total predicted GDP for the UK in 2030.[9]

Although the equivalent figure for New Zealand would require further modelling, it is clear that even a modest increase in the employment of disabled people would likely have a significant impact on the New Zealand economy.

2.3 SOCIAL COSTS FROM HEALTH AND POVERTY-RELATED COMPLICATIONS

While the low rate of employment for disabled New Zealanders has clear and direct effects on the government's fiscal position and the overall economy, it also incurs a number of related social costs.

DISABILITY PLACES PEOPLE AT HIGHER RISK OF POVERTY

International literature has found that in many countries, the combination of relatively low incomes and a high cost of living puts disabled people at a higher risk of poverty than those who are not disabled.

A 2009 OECD synthesis report of literature and data about disabled people found that on average in OECD countries, 22% of households that include a person with disabilities live beneath the poverty threshold compared with just 14% for other households. Additionally, when the risk of relative, rather than absolute, poverty is considered, the proportion of disabled households living in poverty is greater, with some OECD countries experiencing rates in excess of 30%.[10]

A 2006 Australian study found that even without considering the additional cost of living associated with disability, poverty rates for households that included someone with a disability are higher than among otherwise similar households. Once the additional cost of living was considered, the researchers found a four to sixteen-fold increase in the rate of poverty for disabled households.[11]

Although the correlation between disability and poverty is not widely researched in New Zealand, the 2013 Disability Survey found that 38% of disabled workers received incomes totalling $30,000 or less in contrast to just 30% for non-disabled workers. At the other end of the spectrum, only 14% of disabled workers had incomes over $70,000 compared with 23% of non-disabled workers.

LOW INCOMES AND UNEMPLOYMENT ARE LINKED TO POOR HEALTH AND WELLBEING

Living on a low income is linked with a number of social costs including poor health-care outcomes which compound the health issues already faced by disabled people.

[9] See Ipsos MORI (2013)

[10] See OECD (2009)

[11] See Saunders, P. (2006)

This may stem from a lack of disposable income to pay for things such as non-urgent medical check-ups and more nutritious foods. As a result, people on low incomes are more likely to wait until emergency care is required which incurs higher costs than preventive care.

Lack of employment has long been known to have negative effects on individuals' mental health, self-worth, and wellbeing.[12] Periods of unemployment or exclusion from the labour force have a "scarring" effect where individuals' future employment trajectory is lower as a result and can lead to repeat cycles of low and unstable employment.[13]

Stable employment is therefore important to both an individual's health and economic wellbeing with some studies advocating employment as an important component of treatment for psychological disability.[14]

2.4 LOW EMPLOYMENT FOR DISABLED PEOPLE IS LIKELY TO WORSEN AS THE POPULATION AGES

New Zealand is experiencing a significant change in the structure of its population in line with other countries experiencing population ageing. Statistics New Zealand reports that the number of people aged 65 and older in New Zealand has doubled since 1980, and is likely to double again by 2036. The largest growth in this cohort is expected to occur between 2011 and 2036, as the baby boomer generation reach retirement age.[15]

POPULATION AGEING WILL INCREASE THE INCIDENCE OF DISABILITY

This shift will bring with it a number of demographic, health, and labour force shifts. One effect already being experienced in New Zealand is an increase in the proportion of the population with a disability. In New Zealand, the incidence of disability is correlated with age, as it is in many other countries. This fact can be seen in Table 1 below where the number and disability rate of different age groups are shown from the 2013 Disability Survey. The national rate of disability has increased from 20% in 2001 to 24% in 2013 and is predicted to increase further in the coming decades.[16]

[12] Kieselbach, T. (2006) contains a number of articles on the subject and discusses several meta-analyses of the correlation between unemployment and psychological disability.

[13] See Arulampalam et al. (2001)

[14] See Lockett H. and Clive Bensemann (2012)

[15] See Statistics New Zealand (2013) and (2006)

[16] See Ministry of Social Development (2012a)

Table 1: New Zealand disabled population by age group

Age group (New Zealand)	*Total population*	
	Number	Rate of disability (%)
Under 15 years	95,000	11
15 to 44 years	283,000	16
45 to 64 years	314,000	28
65 years and over	370,000	59
All ages	**1,062,000**	**24**

Source: Disability Survey 2013, Statistics New Zealand

INCREASED FISCAL COSTS WILL BE A LARGER BURDEN FOR A SMALLER WORKFORCE

The upward lift in disability as the population ages is expected to increase the fiscal costs of health care since chronic conditions and disabilities tend to be the impairments that place the greatest demands on the health system.[17]

Further fiscal pressures are expected to come from the additional cost of superannuation which will be borne by fewer workers in coming years. The old-age dependency ratio which expresses the number of people of retirement age (65+) to those of working age (15-64) is expected to shift from 5.5 workers per pensioner where it was in 2004 to 2.2 in 2051.[18]

A number of remedies for these issues have been discussed including the raising of the retirement age to encourage older workers to work longer and increased migration to offset labour force declines. There is, however, no single measure that will on its own be able counteract these large forces which means all measures to address these issues need to be brought to bear.

Disabled workers represent an underutilised resource to combat some of the effects of aging and could make a difference if they were better mobilised to work or given further training opportunities. Additionally, if older people, at greater risk of becoming disabled, are expected to work for more years than they were previously, they will need adequate supports to help them stay in work for the extra years necessary.

[17] See Triantafillou et al. (1999)

[18] Statistics New Zealand (2006), Acknowledging that some of the increase in old age dependency ratios is offset by reductions in child dependency rates and increases in female labour market participation.

3. WHY IS EMPLOYMENT FOR DISABLED PEOPLE LOWER THAN FOR NON-DISABLED PEOPLE?

The low labour market participation of disabled New Zealanders stems from a series of particular barriers to market entry.[19]

LOWER EDUCATION LEVELS AND OPPORTUNITIES SUPPRESS EMPLOYMENT FOR DISABLED PEOPLE

There is a well-researched correlation between the level of an individual's qualification and their employment status. In general, people with higher level qualifications are more likely to be employed at any given point in time, which is also true for people with disabilities.[20]

To illustrate this effect, the 2013 Disability Survey found that the participation rate for disabled New Zealanders without formal qualifications was just 36% compared with a rate of 71% for disabled New Zealanders with university degrees[21].

This correlation is particularly problematic for disabled New Zealanders since they tend to have lower qualifications than non-disabled people.

The Disability Survey showed that one-third (33%) of disabled adults had no formal educational qualifications compared with 15% for non-disabled adults. Furthermore, only 12% of disabled adults had a university qualification in contrast with 25% of non-disabled people.

In addition to lower education levels, disabled people tend to have fewer opportunities to get the first jobs and internships that can improve an individual's career trajectory. A person's first after school job or volunteering experience offers them a chance to gain early experience of working life, and gives them a leg-up in subsequent job searches as more employers expect applicants to have these experiences.

SOCIAL ISOLATION RESTRICTS SOCIAL NETWORKS, WHICH COULD HELP FIND EMPLOYMENT

In the same way that missed opportunities for first jobs and volunteering inhibit further moves along the career ladder, the social isolation from lack of work makes it more difficult to find employment. This is an issue for disabled people particularly in the case of visible disabilities which can affect the way non-disabled people interact or perceive them.

Employment and employment progression are therefore important enablers of resilience in the job market and are important for disabled people as they are for non-disabled people.

[19] See Equal Employment Opportunities Trust (2005) for a fulsome discussion of barriers to disabled employment.

[20] See Meager & Hibbett (1999)

[21] Statistics New Zealand (2014)

DISABLED PEOPLE FACE DISCRIMINATION AND MISCONCEPTIONS FROM EMPLOYERS

A significant barrier to employment for disabled people is the collection of misconceptions and concerns held by employers about what it would mean to hire a disabled person.

A 2012 New Zealand study of employer attitudes towards hiring disabled people found that only a quarter of those surveyed felt disabled people were well represented at their organisation and over half (59%) identified barriers in their own workplaces that stopped disabled people from being employed.[22]

These barriers included concerns about the hassle of hiring a disabled person, that they might incur additional costs and be less productive. They also were particularly worried that co-workers or customers might be uncomfortable working or interacting with a disabled person with 67% reporting they would be influenced by staff reactions and 75% being influenced by customer reaction.

Many of these misconceptions continue because of a lack of experience working with disabled people. There are studies which find that employers who have employed disabled people previously have more positive attitudes than those who have never previously done so.

It therefore follows that increasing disabled employment in the near term will have long-term effects on the future employment of disabled people. It is important that hiring and workplace experiences are positive for employers to achieve these effects, but investment in increasing disabled employment in the near term could have positive "snowballing" effects in the future.

Many employer concerns about recruiting disabled staff are myths. A Deloitte report (2011) looking at Australia found that the cost of recruiting disabled employees was generally lower, productivity equal or greater and disabled people had better attendance, lower health and safety issues than non-disabled staff.

The 2013 Disability Survey found that of the disabled people who were employed, relatively few needed specialist modifications or equipment in their workplace. Only 10% said modifications had been made to their work area or equipment to help them do their job was required. Additionally, for disabled workers aged under 65, only 28% said they had difficulty doing some tasks or duties because of a condition or health issue, and only 11% said that a condition or health issue limited the number of hours they could work. Therefore, the very large majority of disabled jobseekers just require the same workplace support as the general population.

[22] See Ministry of Social Development (2012b)

DECLINING INVESTMENT IN IMPROVING LABOUR MARKET OUTCOMES FOR DISABLED PEOPLE

While the employment rate of people with disabilities has increased somewhat between the 2001 and 2013 Disability Surveys (57%-61%)[23], the gap between the employment rate of disabled and non-disabled of working age has widened[24]. The same period has been characterised by declining investment in real terms for disability employment services who support disabled people into employment and tackle low employment of disabled people**.**

For example, during the past 10 years, Workbridge has arranged 36,857 jobs for disabled people and maintained a rate of 3,500-4000 jobs per year, despite our funding for employment placements largely remaining static for the last decade, with only one funding increase of 3.5%.

This lack of increased investment in the support of disabled people into employment has occurred across the disability employment sector. This limits the numbers of staff that can now be employed to arrange more jobs for disabled people. Since 2013, Workbridge has reduced its Employment Consultants from 102 to 86, because of this lack of investment. With inflation, our employment placement funding has decreased by over 20%.

4. REACHING EQUAL RATES OF EMPLOYMENT: THE POTENTIAL COST AND RETURN

The evidence presented in this review suggests there are significant economic, fiscal, and social benefits to be gained from getting more disabled people into employment.

While there is limited data available to precisely measure the costs and benefits of placing a particular number of disabled people into employment, it is possible to create some accurate indicative figures.

Since it is the goal of many in the disability employment sector for the employment rate of disabled people to equal that of non-disabled people, this paper estimates some of the potential benefits and costs of reaching this goal, focusing primarily on the fiscal and economic effects.

Equal employment rates for the disabled and non-disabled working-age population is likely to have impacts at several levels: for disabled individuals, their family members and carers, the government, and for society as a whole. Since a detailed analysis of the costs and benefits at each of these levels was not feasible for this paper, we have focused on the economic and benefits that could come from achieving such a goal at the societal level using the most conservative assumptions possible. We also estimate some of the fiscal effects from the government's perspective.

[23] Those aged 15-64 years, figures quoted from Statistics New Zealand (2014) and ODI (2015)

[24] The gap has widened from 14 to 15 percentage points between those periods. In 2001 disabled and non-disabled employment rates were 57% and 71% respectively, in 2013 they were 61% and 76% respectively.

4.1 THE NUMBERS REQUIRED

The 2013 Disability Survey tells us that for the unemployment and labour force participation rates of disabled and non-disabled people to be equal, an additional 88,000 of the 228,000 disabled people of working age[25] not currently in employment would need to shift into work.

While not an insignificant number, there are many reasons to believe this is an achievable goal.

The Disability Survey asks disabled participants if they are willing to work should an appropriate job be available and if they had actively sought work in the last four weeks. Of the 228,000 disabled people not in employment, over 61,000 reported they were actively seeking work and 161,000 (71%) said they wanted to work if a job was available[26].

Additionally, the Ministry of Health uses the survey results to group disabled people by support need: low, medium, and high (see Appendix B for more detail).

While these groupings have their limitations, 42% (96,000) of disabled people out of work were found to have low support needs, and 41% (92,000) had medium support needs showing that cost or complexity of managing impairments need not be a concern for employers. In fact, less than 14% of all those seeking work reported needing special equipment or work area/building modifications to support their employment.[27]

Considering these facts, we have used 88,000 employed disabled people as the starting point for the following calculations.

4.2 QUANTIFYING THE POTENTIAL BENEFITS

The benefits of increased employment for disabled people fall into the three categories previously discussed: fiscal, economic, and social.

FISCAL BENEFITS

To estimate the fiscal effects of reaching equal employment rates for disabled and non-disabled people, we calculated the likely reduction in welfare spending and the additional revenue the government would receive in taxes.

The Disability Survey shows that 52% of disabled people not in employment receive a benefit of some kind.[28] Using the average hours worked by the disabled jobseekers Workbridge places

[25] Aged 15 to 64 years

[26] Note that this figure differs from the 74% reported earlier in this report which is quoted from Statistics New Zealand (2014). Statistics New Zealand excludes individuals who refused to answer the question or answered "don't know" from the denominator when calculating this percentage. The figure shown here is the author's calculation and includes both "refused" and "don't know" groups as not wanting to work, hence the lower percentage.

[27] Statistics New Zealand (2014)

[28] These were organised under the previous benefit groupings including: the Unemployment Benefit, Invalids Benefit, Sickness Benefit, Domestic Purposes Benefit, and Other Government Benefits.

in employment, we assumed that 53% of those receiving a benefit would work full-time and go off a benefit entirely and that another 27% would work at least 15 hours a week and have their benefit abated by half.

We assumed the remaining 20% would work less than 15 hours a week and still receive a full benefit equivalent to $18,000 a year. Using these assumptions, we estimate reaching equal employment rates for disabled and non-disabled people would yield the government ***a savings on welfare expenditure to the government of over half a billion dollars a year***.

To estimate the additional tax revenue, we used the conservative assumption that all 88,000 newly employed would earn only the minimum wage with 53% working 30 hours/week, 27% working 15 hours/week, and the rest working 10 hours/week.

Assuming all of these earnings took the form of payroll income, the additional 88,000 workers would ***create at least $184 million dollars in new tax revenue***.

SOCIAL AND ECONOMIC BENEFITS

Given the complexity of modelling the social effects of the increased income, self-esteem, and social contact that come with work, we have left these out of our calculations. However, these effects are certainly positive and important, especially for the individuals and families involved.

For similar reasons, we have used only the direct effect on the economy of the increased economic activity from an additional 88,000 workers as measured by the incomes of the newly employed disabled people. We have also discounted the amount of benefit accruing to society as a whole from increase tax revenue and decreased welfare spending using just 20% of the combined tax increase and benefit savings[29].

Using the conservative income assumptions mentioned in the previous section, the additional 88,000 workers would generate ***a post-tax contribution of over $1.29 billion dollars to the economy and $146 million in reduced government administrative costs.***

This certainly underestimates the full economic impact of the increased employment since it excludes the consumption and other flow-on effects these incomes would generate as they move through the wider economy.

4.3 QUANTIFYING THE COSTS

To estimate the cost of placing 88,000 disabled people into work, we used historical Workbridge data to estimate the cost to the government to place disabled people with low, medium, and high support needs.

[29] While taxes and benefit spend directly affect the government's books, from a societal perspective they simply shift money from one part of the economy to another and don't by themselves generate economic activity. The most conservative option is to view these benefits as solely a reduction in administrative costs. We have used 20% of the combined tax revenue and savings since 20% is the proportion used in Treasury Cost-Benefit Analysis guidelines for the deadweight costs of taxation for projects funded from general taxation. http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/cba-guide-jul15.pdf, p15)

This data also showed the breakdown of the workers placed by Workbridge by the support needs they tend to have: 84% had low support needs, 8% medium needs, and 8% high support needs.

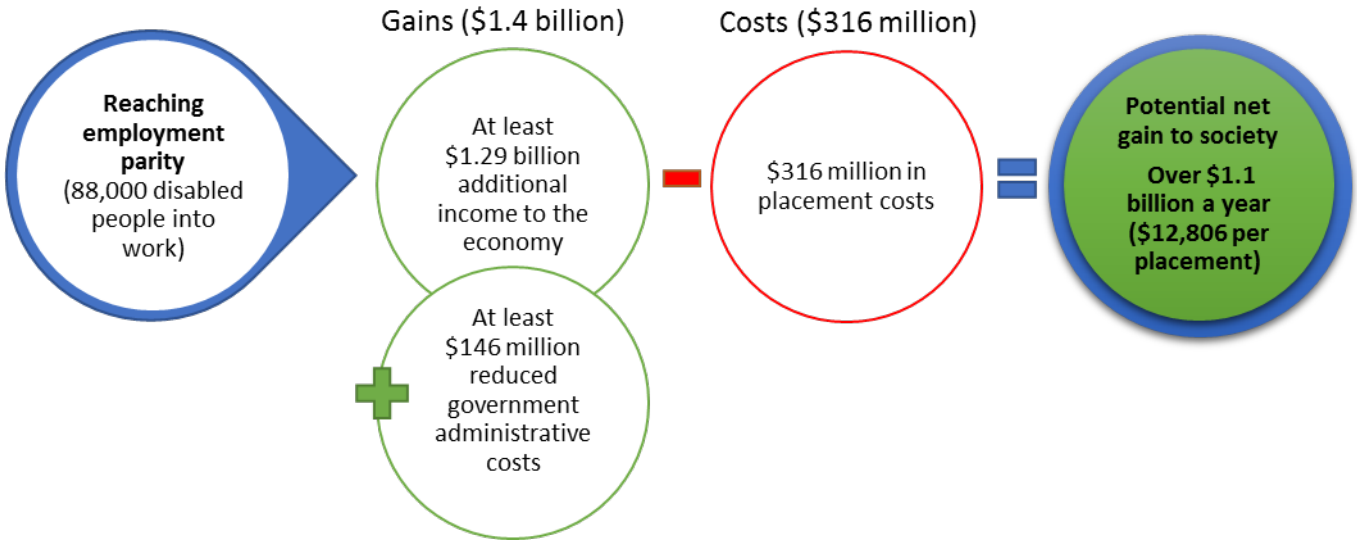
These proportions were applied to the 88,000 new workers and multiplied by the cost per placement for each support level. With these assumptions, ***the estimated cost to place 88,000 disabled workers in employment is just $316 million***.

4.4 NET RETURNS TO SOCIETY FROM EQUAL DISABLED AND NON-DISABLED EMPLOYMENT RATES

Even under the most conservative assumptions, the gains to society from employing the number of disabled people required to achieve equal employment rates between the disabled and non-disabled working-age population greatly outstrip the costs of placement.

Figure 2 below shows the ultimate calculation with gains of over $1.4 billion in contrast to placement costs of just $316 million yielding ***a potential net gain from equal employment rates of over $1.1 billion a year, or $12,806 per placement.***

Figure 2: Gains & costs to society of reaching the same rate of employment for disabled people



5. SUMMARY AND CONCLUSION

From this review, we can see there are significant fiscal, economic, and social benefits to be gained from increasing the employment of disabled people in New Zealand.

As both a part of its ongoing commitment to the United Nations Convention on the Rights of Persons with Disabilities and to achieve other goals such as the Better Public Service Welfare Target (target number 1), the government should look to the large often hidden talent pool of disabled people that is both willing and able to take up employment.

Reaching the same rate of employment for disabled people is both an equity issue and an opportunity to address longer-term issues such as the fiscal cost and labour market effects of population aging.

Our modelling, using the most conservative assumptions possible, shows that the indicative returns to reaching equal employment rates for disabled and non-disabled people are more than eight times the placement costs and could yield over $1.7 billion a year in welfare savings, tax revenue, and increased economic activity.

This is, by any estimation, an investment worth making and one that is a win both for those disabled people employed and their families, and New Zealand as a whole.

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APPENDIX A: CALCULATION METHODOLOGY AND ASSUMPTIONS

NUMBER OF NEWLY EMPLOYED DISABLED WORKERS NEEDED TO REACH EMPLOYMENT PARITY

In order for the employment rate of disabled and non-disabled people to be equal, their respective rates of unemployment and labour force participation would need to reduce enough to increase the disabled employment rate to 76%. Table 2 below shows the labour force status of disabled and non-disabled people as estimated by the Disability Survey 2013. In order for 76% of disabled people to be employed, the number of disabled people in employment would need to rise from 355,000 to 443,000, an increase of 88,000 individuals.

Table 2: Disabled and non-disabled by labour force status

	Number (thousands)		*Rate (percent)*	
	Disabled	Non-disabled	Disabled	Non-disabled
Employed	355	1,726	61%	76%
Unemployed	40	99	7%	4%
Not in the labour force	188	446	32%	20%
Total responding	**583**	**2,272**	**100%**	**100%**

Source: Disability Survey 2013, Statistics New Zealand

INCOME OF NEW WORKERS

To calculate the expected incomes of the 88,000 new disabled workers, we conservatively assumed all workers would receive no more than the minimum wage ($14.75) and would work a similar number of hours to the workers Workbridge has historically placed into employment. Using previous records, Workbridge found that 53% of the workers it places work 30 hours or more per week, 27% work 15 hours or more, and the remainder work less than 15 hours per week. Table 3 below shows the gross and net income an individual in each of these groups would receive per year and their expected tax paid as calculated using the IRD online tax calculator[30].

Table 3: Annual income (net and gross) and tax paid by hours/week worked per person

Min wage	*Hours/week*	*Gross income*	*Tax paid*	*Net income*
$14.75	10	$7,670	$805	*$6,865*
$14.75	15	$11,505	$1,208	*$10,297*
$14.75	30	$23,010	$3,047	*$19,963*

Source: Allen + Clarke calculations

[30] Online at www.ird.govt.nz/calculators/keyword/incometax/calculator-tax-rate.html

ADDITIONAL TAX REVENUE

Using the income assumptions discussed above, we calculated the expected new tax revenue for each income group (working 10, 15, and 30 hours per week respectively at the minimum wage) using the IRD online tax calculator. For simplicity, we assumed the entirety of earnings came from payroll income. Table 4 shows the income (both gross and net) and the expected tax paid for each income grouping.

Table 4: Income (gross and net) and tax paid by income group

NUMBER OF WORKERS	HOURS/WEEK	GROSS INCOME	TAX PAID	NET INCOME
17,600	10	$134,992,000	$14,168,000	$120,824,000
23,760	15	$273,358,800	$28,702,080	$244,656,720
46,640	30	$1,073,186,400	$142,112,080	$931,074,320
88,000		**$1,481,537,200**	**$184,982,160**	**$1,296,555,040**

Source: Allen + Clarke calculations

BENEFIT SAVINGS

To calculate the expected benefit savings of reaching employment parity, we assumed that 52% of the 88,000 new disabled workers (45,760 individuals) would have been receiving all or some portion of a benefit totalling $18,000 per year prior to being placed which is in line with the proportion of disabled people not in employment and on a benefit from the Disability Survey 2013. To approximate the abatement in benefits from additional hours worked, we assumed that of the 45,760 individuals receiving a benefit, 53% (24,253 individuals) would work full-time and go off a benefit entirely and that another 27% (12,355 individuals) would work at least 15 hours a week and have their benefit abated by half. We assumed the remaining 20% (9,152 individuals) would work less than 15 hours a week and would still receive a full benefit equivalent to $18,000 a year. Table 5 shows the number of new workers expected to leave a benefit or have their benefit abated and the resulting estimated savings.

Table 5: Number of new workers leaving a benefit and the associated savings expected

	Number of workers	***Estimated savings***
Entirely off a benefit	24,253	$436,550,400
Benefit abated by half	12,355	$111,196,800
Total	***36,608***	***$547,747,200***

Source: Allen + Clarke calculations

SOCIETAL BENEFIT FROM BENEFIT SAVINGS AND TAX REVENUES

While taxes and benefit spend directly affect the government's books, from a societal perspective they simply shift money from one part of the economy to another and don't by themselves generate economic activity. To include these benefits in the societal benefit

calculation, the most conservative option is to view these benefits as solely a reduction in administrative costs. We have used 20% of the combined tax revenue and savings since 20% is the proportion used in Treasury Cost-Benefit Analysis guidelines for the deadweight costs of taxation for projects funded from general taxation[31]. Therefore, we have used the figure of $146,545,872 (($547,747,200 + $184,982,160) *.2)) for the final societal benefit calculation used in Figure 2.

JOB PLACEMENT COSTS

EMPLOYMENT AGENCIES WORKING WITH DISABLED PEOPLE CAN BE FUNDED UNDER A NUMBER OF CONTRACTS WITH THE MINISTRY OF SOCIAL DEVELOPMENT (MSD). THESE CONTRACTS DIFFER IN THE AMOUNT PAID PER PLACEMENT DEPENDING ON THE LOCATION, THE LEVEL OF SUPPORT NEED, THE HOURS PER WEEK WORKED, AND THE DURABILITY OF THE PLACEMENT (LENGTH OF TIME THE DISABLED EMPLOYEE REMAINS IN THE JOB). THE SECTOR ALSO FACES UNCERTAINTY AS TO HOW THESE CONTRACTS WILL BE FUNDED IN THE FUTURE AS THIS IS CURRENTLY UNDER REVIEW.

In order to estimate the per-placement cost to MSD for each support level (low, medium, and high), Workbridge reviewed two current MSD contracts[32] with fees split by needs level. These contracts also pay differential amounts for achievement of particular components of the placement: enrolment, placement, and a bonus for a durable placement. Each of these was averaged across the contracts to come up with the final per-placement cost by support level (See Table 6 below).

Table 6: Per-placement cost by cost type and disability support level grouping

Cost per job placement	***Ministry of Health support level grouping***		
	Low	**Medium**	**High**
Enrolment/Administration	$962	$1,923	$1,923
Placement	$1,279	$2,179	$3,994
Durability *(for placement to be durable >12 months)*	$769	$1,121	$2,172
Total cost to MSD	**$3,009**	**$5,224**	**$8,089**

Source: Workbridge

To estimate the proportion of new placements that fall into each support level, Workbridge has matched its needs levels categories to those of the Ministry of Health based on the hours

[31] See p15, http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/cba-guide-jul15.pdf

[32] ii) The Whanganui Sole Parent Regional Contract and the Mental Health National Contract.

spent support a client into work before and after being placed into work. The pre and post placement hours corresponding to each Ministry of Health support level grouping are shown in Table 7 below.

Table 7: Workbridge pre- and post-placement hours corresponding to each Ministry of Health support level grouping

Disability Support Level	*Pre-Placement Hours*	*Post-Placement Hours*
LOW	< 8.8 hours	< 5 hours
MEDIUM	8.8 to 10.3 hours **OR** <8.8 hours with Support Funding (equipment or other workplace modification assistance)	5 to 8 hours **OR** <5 hours with Support Funding (equipment or other workplace modification assistance)
HIGH	10.3+ hours **OR** <10.3 hours with Support Funding (equipment or other workplace modification assistance)	8+ hours **OR** <10.3 hours with Support Funding (equipment or other workplace modification assistance)

Source: Workbridge

FINAL RESULTS

Table 8 shows the final calculations using the results from the sections above. Table 9 shows the benefits, cost, and net gain per placement.

Table 8: Final calculations

Number into work	88,000
Benefit savings	$547,747,200
Additional tax income	$184,982,160
Administrative savings (20% of benefit savings and tax income)	$146,545,872
Additional income to economy	$1,296,555,040
Sum benefits	$1,443,100,912
Placement cost	$316,148,800
Difference of benefits / costs	$1,126,952,112

Table 9: Benefits, cost, and net gain per placement

Benefits/placement	Cost/placement	*Net gain/placement*
$16,398.87	$3,592.60	*$12,806.00*

APPENDIX B: MINISTRY OF HEALTH DISABILITY SUPPORT LEVEL GROUPINGS

Using the responses of the Disability Survey, the Ministry of Health has developed a set of criteria to create a derived 'Support Level' variable. This variable is used to show the level of support required by disabled adults[33]. There are 3 levels – low, medium and high support need. All disabled adults are in level 1 (low support need) unless they meet the specified criteria to move up to levels 2 or 3.

To move up from support level 1 to support level 2, a disabled adult:

1. Has need (met or unmet) for equipment to assist with hearing, speaking, vision, moving around, use of hands or arms, or other purpose.
2. Has need (met or unmet) for special modification of their work area; does not work and would need modifications, special equipment or special building features in order to work.
3. Gets help with cooking, shopping, cleaning, managing finances, communication, personal care at least once a month.
4. Is unable to get help with personal care, housework or shopping when needing it.
5. Has had respite care (carer support) in last 12 months or needs respite care.

To move up to support level 3 a disabled adult gets help with cooking, shopping, cleaning, managing finances, or personal care every day.

The variables in the 2013 Disability Survey that are used to determine whether the criteria are met are provided in the following tables (overleaf).

[33] An adult is aged 15 years or over.

Adult Level 2 Medium Support Level

2013 Criteria	2013 Variables
Assistive devices/aids/equipment are used	
Hearing equipment used	qAHearEqp = 1
Speaking equipment used	qASpeechEqp = 1
Vision equipment used	qAVisionEqp = 1
Equipment to move about used	qAMoveEqp = 1
Equipment for hands or arms used	qAAgileEqp = 1
Other equipment used	qAOthEqp = 1
Unmet need for assistive devices/aids/equipment	
Unmet need for equipment to move about	qAMoveEqpNeed = 1
Unmet need for equipment for hands and arms	qAAgileEqpNeed = 1
Unmet need for other equipment	qAOthEqpNeed = 1
Unmet need for hearing equipment	qAHearEqpNeed = 1
Unmet need for speaking equipment	qASpeechEqpNeed = 1
Unmet need for vision equipment	qAVisionEqpNeed = 1
Adaptations needed at work	
Adaptations at work provided	qAWorkArea = 1
Adaptations at work needed	qAWorkAreaNeed = 1
Adaptations at work used	qAWorkAccessUse = 1
Adaptations at work needed	qAWorkAccessNeed = 1
Not in paid job, looked for work in last 4 weeks & would need modifications to work area in order to work	qASeekWrkWorkArea = 1
Not in paid job, looked for work in last 4 weeks & would need special equipment in order to work	qASeekWrkWorkEquip =1
Not in paid job, looked for work in last 4 weeks & would need modification to building access in order to work	qASeekWrkWorkAccess = 1
Assistance received with a range of activities	
Gets help with cooking	qACook = 1
Gets help with shopping	qAShop = 1
Gets help with cleaning	qAClean = 1
Gets help with managing finances	qAFinance = 1
Gets help with communication	qAComms = 1
Gets help with personal care	qAPersCare = 1
Had respite care (carer support) in last 12 months	qARespite = 1
Unmet need for assistance with a range of activities (in last 12 months)	
Unable to get help with personal care when needed it	qAPersCareNeed = 1
Unable to get help with housework or shopping when needed it	qAHwrkNeed = 1
Unable to get respite care when needed it	qARespiteUnmet = 1

Adult Level 3 High Support Level

2013 Criteria	2013 Variables
Assistance received DAILY on a range of activities	
Gets help with cooking (daily)	qACook = 1
Gets help with shopping (daily)	qAShop = 1
Gets help with cleaning (daily)	qAClean = 1
Gets help with managing finances (daily)	qAFinance = 1
Gets help with personal care (daily)	qAPersCare = 1