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More ladders, fewer snakes:

Two proposals to reduce youth disadvantage

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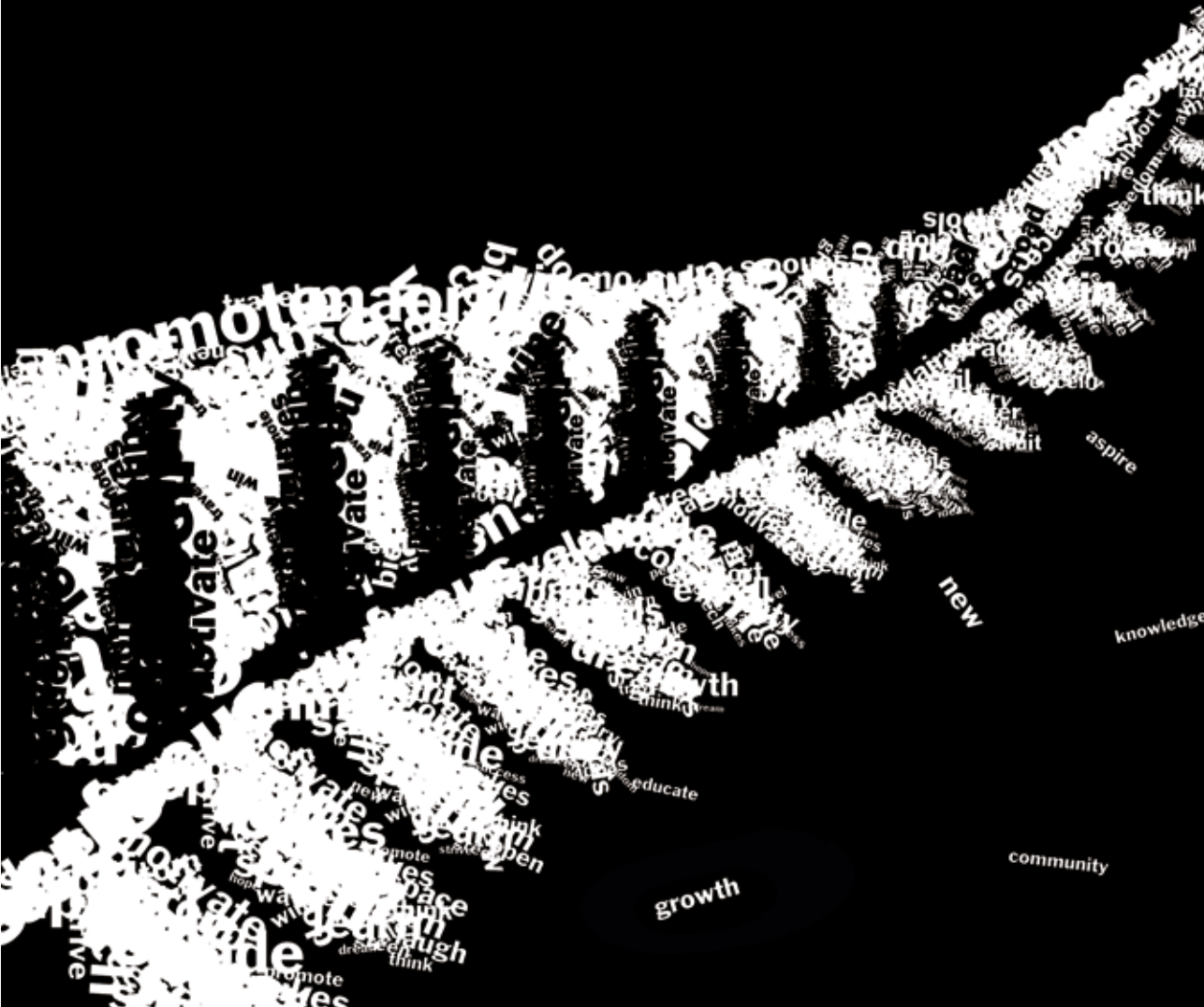JULY 2011

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'More ladders, fewer snakes'
proposes that accelerated roll-out
of e-learning to low decile schools
and improving the school-to-work
transition will materially reduce
youth unemployment and resulting
social issues.

ACKNOWLEDGEMENTS

CONTENTS

Youth are important because they will be our future parents, workers, citizens and leaders.

Improving outcomes for disadvantaged youth will provide three important benefits: lower harm and costs while the youth are young, establishing the youth on better trajectories for the remainder of their lives and a better start in life for their children.

Despite the involvement of many government agencies, a large number of interventions and extensive research literature, there is no widely agreed understanding of why New Zealand youth are experiencing poor outcomes and no agreed strategy for improvement.

The New Zealand Institute investigation aimed to identify powerful interventions that can ensure the socialisation process works more effectively to reduce youth issues, rather than improve remediation efforts.

Five social issues that affect youth are education, unemployment, crime, health and safety, and teenage births. Many youth are affected by these issues and many are affected by more than one. The unemployment rate for youth is about 20% and higher proportions of youth are smokers, hazardous drinkers, cannabis users, overweight or obese, or have low education attainment at age 15.

New Zealand youth perform well on average relative to OECD norms in education. However for each of the other four measures New Zealand's average is materially worse than the OECD average.

Every country has disadvantaged youth. New Zealand's are more disadvantaged than youth in other OECD countries on average, the disadvantage is strongly concentrated in Māori and Pacific ethnic groups and there is no convincing sign of improvement trends.

Unemployment is central; it is an important consequence of disadvantage as well as a cause of further disadvantage. Disengaged, inactive youth are at greater risk of lower earnings, needing social assistance, criminal offending, substance abuse, teenage births, suicide, homelessness, and mental or physical ill health.

New Zealand 'allocates' a higher share of unemployment to its youth than any other OECD country. Forty-five percent of New Zealand's total unemployed are youth. Youth aged 20 to 24 years have similar experiences to 20 to 24 year olds in other OECD countries so it is the 15 to 19 year olds here who are different.

Many OECD countries insulate their 15 to 19 year olds from unemployment by keeping them in education or training so they are not in the labour force.

New Zealand does not; it has the lowest median age of leaving initial education among OECD countries. Far too many youth are leaving school early and not successfully transitioning to work. So although New Zealand youth perform comparatively well in education at age 15, they do not do well on average after that.

Māori and Pacific youth are much more likely than other youth to leave school educationally disadvantaged. That makes them more likely to be exposed to the risk of other disadvantages too.

Assuming New Zealand society is unwilling to continue to accept these very poor outcomes and the absence of improvement trends, much more needs to be done. The question is what?

Many arguments are made that disadvantage arises from cultures, communities, parenting, pregnancy and early childhood experiences. There is no doubt that many children start school disadvantaged.

However, there are examples where children have arrived at school disadvantaged and left with successful outcomes. The challenge is to make those successes much more widespread.

Successful education requires more than just turning up at school. If students are engaged they will make the effort to learn but too few students remain engaged at school. By age 16, 36% are reported to be usually or always bored and one quarter want to leave as soon as they can, or already have (Wylie, 2009, p.2).

According to the Ministry of Education, New Zealand has one of the highest proportions of disengaged 14 to 18 year old students of any OECD country (2009, p.23). Yet there is no nationwide measurement of student engagement and no nationwide efforts to retain engagement. Rather there are many intervention efforts that respond to the symptoms of disengagement such as truancy.

E-learning, combined with a school improvement programme, improves student engagement and learning outcomes. For example, Manaia View School is decile one, has a 90% Māori roll and has established an e-learning programme. Last year 89% of their year seven and year eight students performed at or above the level expected for their age in reading, and 71% in writing. The corresponding figures for 2008 were 58% and 32% respectively.

E-learning is not enough by itself. It needs to be embedded in a school improvement programme that includes teacher development and community engagement.

E-learning can reach everyone and improve outcomes for those already disadvantaged. Therefore it should be scaled urgently and systematically. Successful scaling will require:

Provision of turnkey technology solutions to the schools;

Development and communication of the principles to guide school improvement and to deploy e-learning;

Resources at a district level to ensure professional support is available where and when it is needed; and

Effective mechanisms for identification and transfer of best practice.

Despite many e-learning efforts and compelling evidence of its positive impacts on engagement and learning, none of these requirements is yet available.

The school-to-work transition is not working well. Many young people are leaving school but not finding their way into permanent work successfully.

There are many educational institutions that compete for students and the funding they bring. Success depends on being able to offer courses that students find appealing but there is no robust test to ensure that the courses offered will lead to work for the graduates. Most educational institutions do not track what happens to their students when they graduate and there are weak connections between the institutions and employers.

There is no strong mechanism to match aggregate future workforce needs with educational or training capacity either. In a world where workforce needs are changing rapidly that leads to mismatches which are costly for the individuals affected and for the economy as a whole.

To remedy these issues we propose that stronger pipelines be developed to help students progress from school through tertiary academic or vocational training and into work. Examples of successful pipelines exist and the lessons from these should be abstracted and rolled out nationwide.

There should be a central agency, such as Careers NZ, that is mandated to provide oversight of the overall careers system and make changes that will promote life-long career self-management. It should provide professional career guidance for students as they move through the school-study-training-work transition, informed by a sound understanding of student aptitudes and interests, and the expected workforce supply and demand.

Most of the changes we propose involve refocusing existing capacity, capability and effort. An indicative costing indicates that the incremental per annum cost would be around $200 million, roughly 4% of the current primary and secondary education budget.

The estimated annual cost from youth unemployment, youth incarceration, youth on the sole parent benefit, including taxes forgone, is around $900 million. An improvement to the OECD mean outcomes on these variables would repay a $200 million per annum investment. The best performing OECD countries have much lower costs for these youth issues so large improvements are achievable.

Successes are being achieved in New Zealand but they are isolated examples. The champions of these successes are trying to encourage more widespread adoption of the successful programmes.

The next step is to combine the best methods and learning from existing efforts and to scale them quickly. In our explorations we met many people who are making a difference. What we did not see was evidence of a well-organised centre hungry for valuable interventions and capable of scaling them.

The challenge is to find a person or agency with the motivation, resources and mandate to successfully launch the changes we propose. The absence of such a readily identifiable person or agency may help explain why there is so much youth disadvantage and so little progress in reducing the social issues experienced by youth, especially Māori and Pacific youth.

Leadership will be essential to initiate and drive the effort, and cooperation among agencies will be needed for successful implementation.
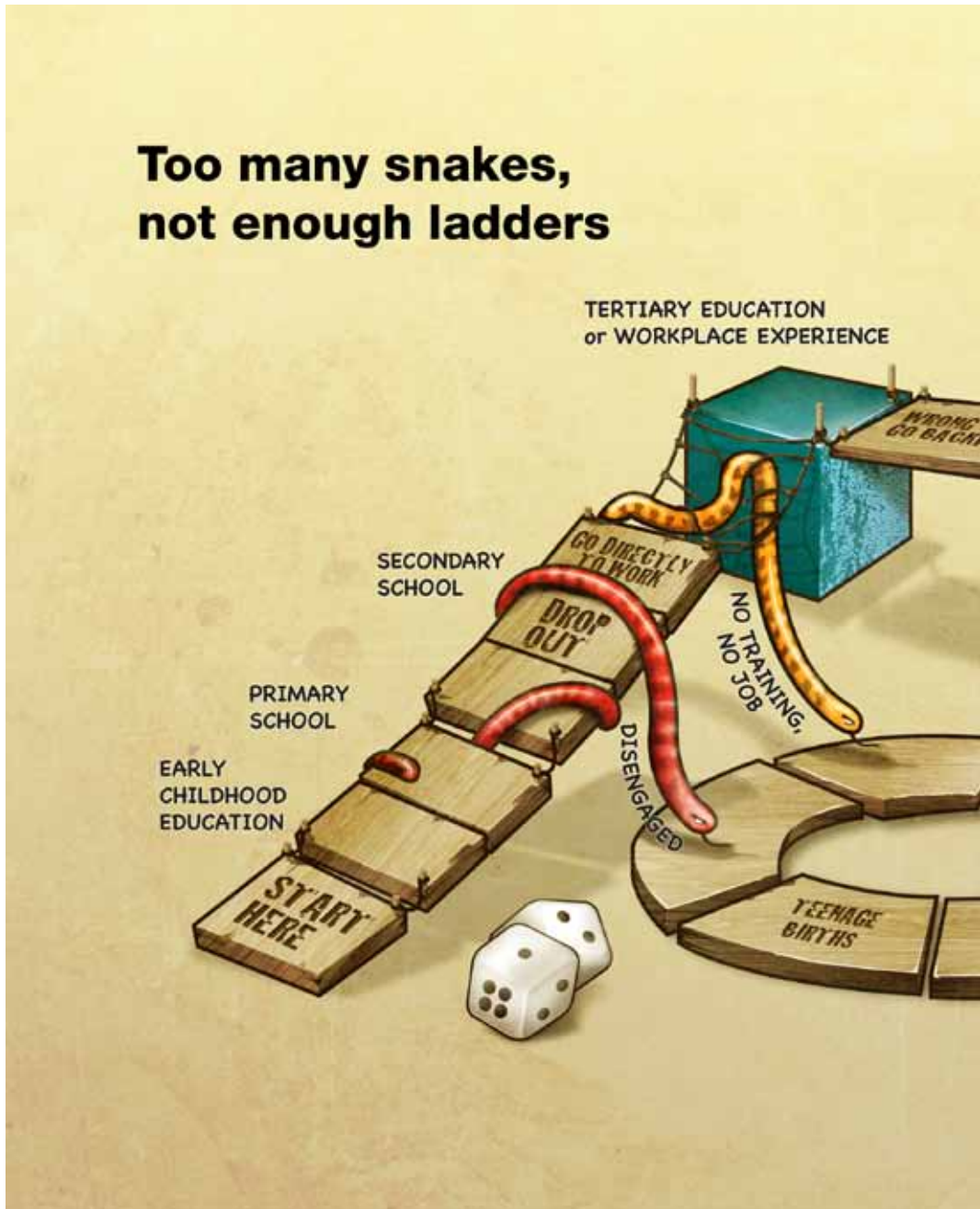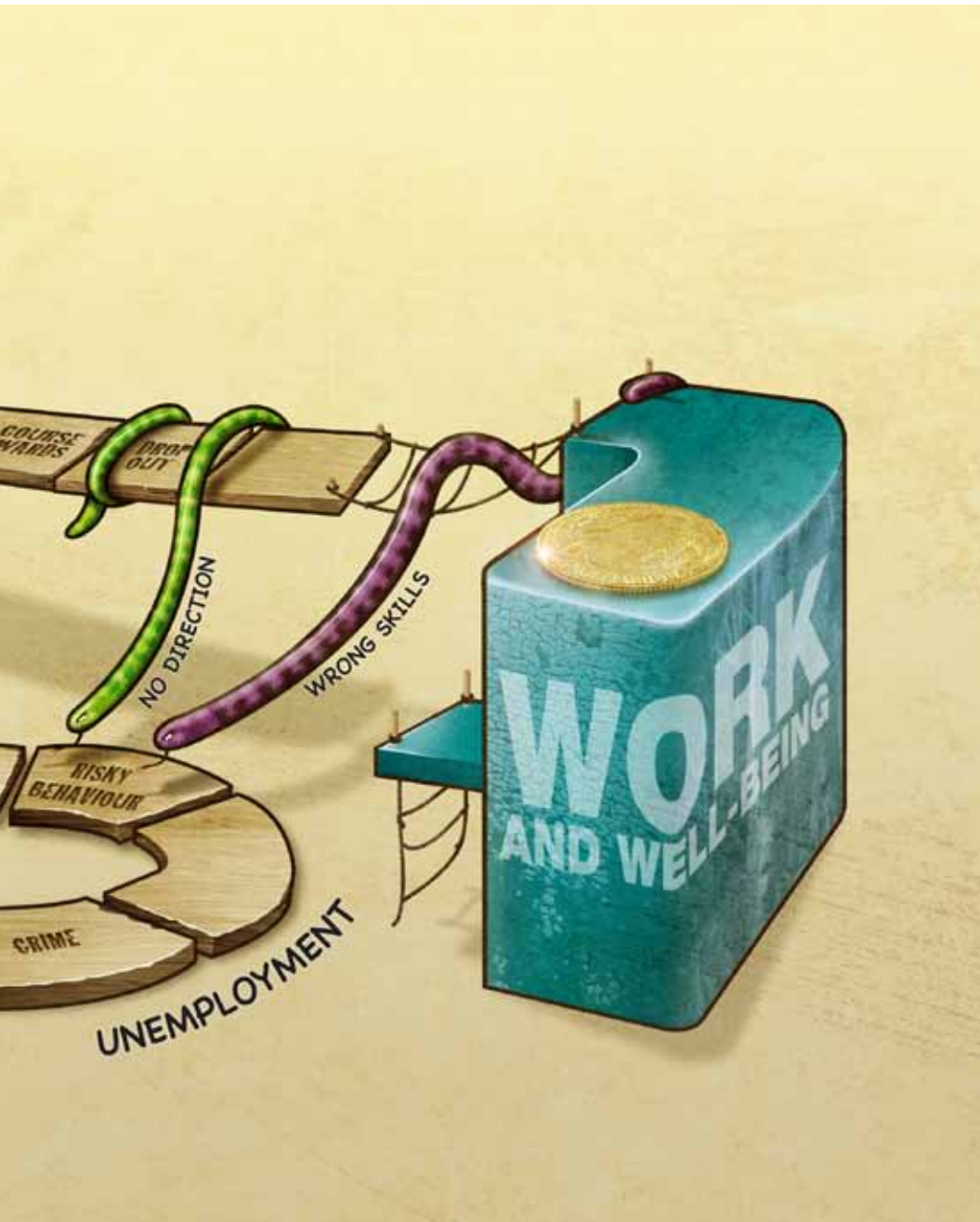
1 INTRODUCTION

Youth are important. They will be our future parents, workers, citizens and leaders.

The youth years are usually regarded as those from 15 to 24. Population estimates indicate there are 644,000 youth in New Zealand, representing 15% of the total population (Statistics New Zealand, 2011a).

FIGURE 1: ESTIMATED NUMBER OF YOUTH IN NEW ZEALAND BY ETHNICITY, 2011

|	15-19 Years	20-24 Years	
	320,000	324,000	
Pacific peoples	10%	9%	
Asian	11%	15%	
Māori	18%	16%	
European or Other	61%	60%	

Source: Statistics New Zealand (2008; 2011a).
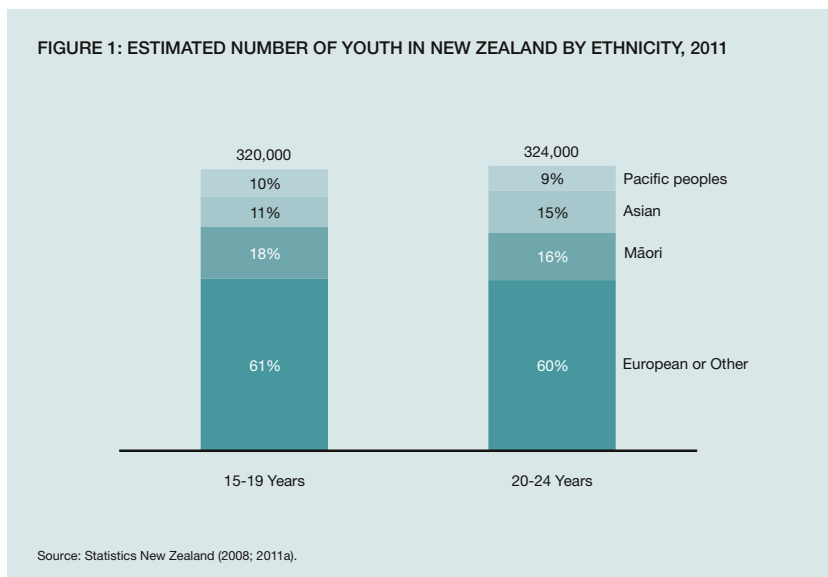
Around 60% of youth are European, with 18% identifying as Māori, 13% as Asian and 9% as Pacific peoples (Statistics New Zealand, 2008). Ethnicity is important because outcomes for youth vary a lot by ethnicity.

The youth years are often troublesome, as young people transition from being children to being adults and sometimes test the boundaries of what is regarded as acceptable behaviour by mainstream communities.

Complaints about the behaviour of youth survive from ancient times and seem to be recorded in every generation. Youthful exuberance and difficulties with authority are normal. Many, probably most, of us did things in our youth that we would not regard as acceptable behaviour by others today.

This paper is not focused on difficult youth behaviour though, it is about disadvantaged youth. Every society has youth who are disadvantaged; it is a natural consequence of having a distribution of youth in situations ranging from advantaged through average to disadvantaged.

Disadvantaged youth are important for New Zealand because the data presented in the next chapter shows that disadvantaged youth in New Zealand are more disadvantaged than youth in other OECD countries, that poor youth outcomes are concentrated in Māori and Pacific groups, and that the situation is not improving.

That implies the experiences of New Zealand youth are not as good as those for youth in other developed countries on average, that New Zealand is likely to be spending more to remedy youth issues than competing economies and that New Zealand youth are not being prepared as well for adulthood as are youth in other countries. These outcomes are not only painful for the youth who bear the brunt of the harm; they also impose high costs on New Zealanders as a whole and reduce the nation's future competitiveness potential.

Improving outcomes for youth should be a strategic priority because it offers three sources of benefit. First, there are immediate benefits from reducing human harm, response costs and productivity losses while the youth are young. Second, better experiences as youth will lead to improved trajectories for the rest of their lives. Third, better youth outcomes will lead to better starts in life and better long term outcomes for their children, and will help break the cycle of disadvantage that has become established in New Zealand.

Youth issues are recognised as important. The Executive Summary of the Youth Transitions Report Series (Ministry of Social Development, 2003, p.2), begins with:

> "Government has the goal of having, by 2007, all 15-19 year olds in work, education or training, or other activities that contribute to their long term economic independence and wellbeing. The goal is shared with the Mayors' Taskforce for Jobs. The Department of Labour, the Ministry of Social Development (MSD), the Ministry of Education and the Tertiary Education Commission are undertaking work to help support progress towards this goal."

There are many interventions designed to improve youth outcomes. Several government agencies focus on aspects of youth issues. There is some coordination among these agencies with interdepartmental committees such as the Taskforce for Action on Violence within Families and initiatives such as Whānau Ora. There are also numerous efforts to help youth by non-governmental organisations (NGOs) and businesses.

Despite the 2003 goal and all these efforts, today there are no realistic, agreed and widely understood ambitious targets for improvement of youth outcomes. There is currently no agreed youth outcome improvement strategy and improvement trends are not evident.

Government efforts are principally managed within silos which means the causes of youth social issues may be the responsibility of one government agency while the outcomes are the responsibility of another. Non-government efforts are numerous and fragmented. There is no lead advocacy group that is concerned with youth issues, corresponding to the Child Poverty Action Group or Grey Power. Rigorous evaluation of improvement programmes is inconsistently applied.

Eliminating youth disadvantage is an unrealistic goal. But it should be possible to achieve outcomes comparable with the better OECD performers. Setting ambitious targets helps focus effort on the big opportunities and forces thinking beyond small improvements at the margin.

Setting ambitious goals would be a great start but, as we have argued elsewhere, a goal is not a strategy. Youth issues are challenging and persistent despite decades of research and an immense literature.

Ask yourself what you think are the main causes of New Zealand having more disadvantaged youth than other countries, and what are the three or four interventions that would make the most difference. That thought experiment is likely to reveal that you do not have clear answers. If you do have clear answers then test them against answers offered by others. You will find there is little consensus.

The persistence of youth issues despite numerous efforts to address them implies that a new approach is required. Our search for powerful interventions has three foundations.

The first foundation is to focus on ensuring the socialisation process is effective. Once disadvantage and difficult behaviours are established they are very hard to change, so remediation of social issues, including youth issues, has limited success. A lot of effort goes into remediation and a lot of research effort goes into how to improve remediation. Our approach is to focus on getting the socialisation process to work effectively so that less remediation is required.

The second foundation is to look for silo issues. Our experience with research on New Zealand's innovation and economic performance, and in other domains, reveals that many issues arise here because of failure to manage cross-silo issues effectively. We expected the same with youth social issues.

The third foundation is to start by understanding how New Zealand's outcomes differ from outcomes in other countries, and why. Looking at the numbers helps inform the diagnosis and guides the search for solutions.

The next chapter of this discussion paper compares outcomes for New Zealand youth with those of other countries, highlighting where our youth are especially disadvantaged.

Chapter three delves into the reasons for disadvantage, leading to identification of promising areas for intervention.

The fourth and fifth chapters provide the rationale and proposed approach for two interventions to materially improve outcomes. Retaining engagement at school and improving the school-to-work transition process offer the potential for better educated youth who are much less likely to become unemployed and experience other social issues.

An illustration of the economic benefits from investing in the proposed interventions is presented in chapter six.

The conclusion provides a summary and offers observations about how improved youth outcomes can best be assured.

2 DISADVANTAGE EXPERIENCED

Disadvantage reveals itself in social issues. A social issue is one where an individual's behaviour or life experience is harmful to themselves or others, or imposes a cost on society. Economic costs can be imposed on society from consequences of harmful behaviour, prevention of the behaviour, or lost productivity. Youth disadvantage is revealed by the measures of social issues. Disadvantaged youth are those who experience the social issues.

Five types of social issues are reported in this chapter: education, unemployment, crime, health and safety, and teenage births.

Education prepares children and youth for successful lives as parents, workers, citizens and leaders. If youth are not educated successfully they are less likely to secure well-paid work and may be unable to secure work at all. They may not be well-equipped to make life choices that will enable them to avoid other social issues.

Unemployed youth are doubly disadvantaged. They miss out on the income and work experience that can help launch them as successful adults. They are also at greater risk than employed youth of other adverse outcomes including:
- Lower earnings;
- Greater reliance on social assistance; and
- Higher rates of unemployment, criminal offending, substance abuse, early pregnancy, suicide, homelessness and mental or physical ill health (McLaren, 2003, pp.3-4).

Much of the crime committed by youth harms others. People who are convicted of crimes and punished harm their own lives too. They may have their employment or income reduced and they may face stigma or restrictions that limit their future prospects.

Health and safety is used in this project as a category to include numerous issues faced by youth. Youth mortality is the ultimate health issue and is influenced by suicide and risky behaviour. Smoking, obesity, drug and alcohol abuse may lead to health issues. Drug and alcohol use may also lead to criminal convictions.

Teenage birth is included here as a social issue, though not all teenage births indicate a social issue. It is not possible to access statistical data for New Zealand or for comparator countries that allows us to determine what proportion of teenage births should be a concern. But research does show that teenage birth is associated with increased likelihood of poor outcomes, even for young people who are already disadvantaged (Collins, 2010, p.1).

The process lens implies that focus on ensuring successful socialisation will improve outcomes. That means more youth educated and employed, less crime and more favourable health outcomes, resulting in lower costs for society. When socialisation is less than fully successful, social issues are more likely.

The figures that follow show how many youth are affected, how disadvantage differs among ethnic groups, trends, and how New Zealand compares with other countries. Not all data is shown for all issues and the presentations differ because of availability of data. The purpose is to identify the pattern of youth disadvantage to guide the search for powerful solutions.

EDUCATION

The OECD's Programme for International Student Assessment (PISA) reports the performance of 15 year olds in many countries in standardised tests covering reading, numeracy and scientific reasoning. New Zealand's 15 year olds perform consistently well on average, being 4th among OECD countries in science and reading, and 7th in mathematics (OECD, 2010a). New Zealand also scores well in measures of the proportion of the adult population who have tertiary qualifications (OECD, 2010b) leading to the widely held view that New Zealand's education system is a star performer.

There are two important criticisms commonly levelled though. The first is that adult numeracy, literacy and financial literacy scores are poor, and the second is that New Zealand has a 'long tail' of poor performers. Deficiencies in adult literacy, numeracy and financial literacy are important criticisms of education system performance and worthy of public attention, but they are adult issues and beyond the direct focus of this project.

What is meant by the 'long tail' is that despite the high average performance there are many in New Zealand who are performing a long way below the average. The best test of this criticism is shown in Figure 2. The data confirms that New Zealand performs well on average but also shows that New Zealand's poor performers score better than the poor performers for the OECD. This does not provide evidence of a 'long tail'.

While the 'long tail' is revealed as something of a myth, it is of great concern that educational disadvantage is highly concentrated in Māori and Pacific ethnic groups. This concentration appears to be the reason why the 'long tail' description is so often applied to New Zealand's educational outcomes.

FIGURE 2: PERCENT AT EACH PROFICIENCY LEVEL ACROSS READING,
MATHEMATICS AND SCIENCE, 2009

Source: OECD (2010a).

PISA scores are normalised to a mean of 500 across OECD countries. In 2009 Pākehā or European 15 year olds scored 544 on average and Asians scored 527 on average, performance categorised as 'great' on a universal scale derived by Mourshed, Chijioke & Barber (2010, p.21). In contrast, Māori 15 year olds scored 480 on average, on the boundary between 'fair' and 'good', while Pacific peoples scored 447 on average, categorised as 'fair' (Education Counts, 2009).

These differences are very large and Figure 3 shows the gaps are not closing much.

FIGURE 3: MEAN PISA RESULTS ACROSS READING, MATHEMATICS AND SCIENCE BY ETHNICITY
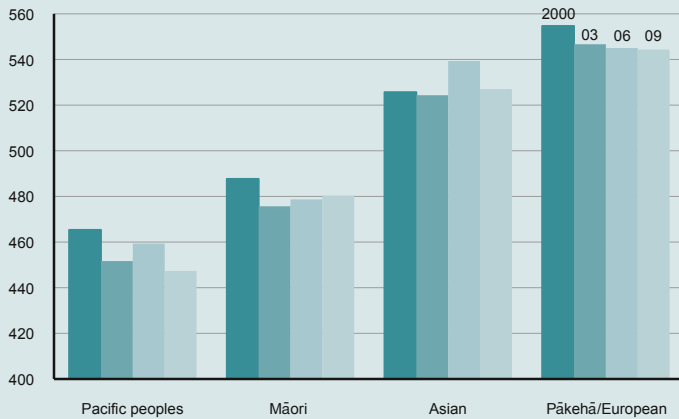
Source: Education Counts (2000, 2003, 2006, 2009).

UNEMPLOYMENT

Unemployment is both a result and a cause of youth disadvantage. Youth who are disadvantaged are more likely to be unemployed and unemployment leads to further disadvantage.

The latest figures show that overall unemployment in New Zealand was 6.5% in 2010 compared with 8.6% on average in the OECD (OECD, 2011). However, the youth unemployment rate in New Zealand was 25% among 15 to 19 year olds and 12% among 20 to 24 year olds (Statistics New Zealand, 2011b).

Figure 4 shows that 45% of New Zealand's total unemployed are youth, meaning our youth have the highest share of unemployment of any youth population in the OECD.

FIGURE 4: YOUTH AGED 15-24 AS PERCENT OF TOTAL UNEMPLOYED, 2009

Source: OECD (2010c).
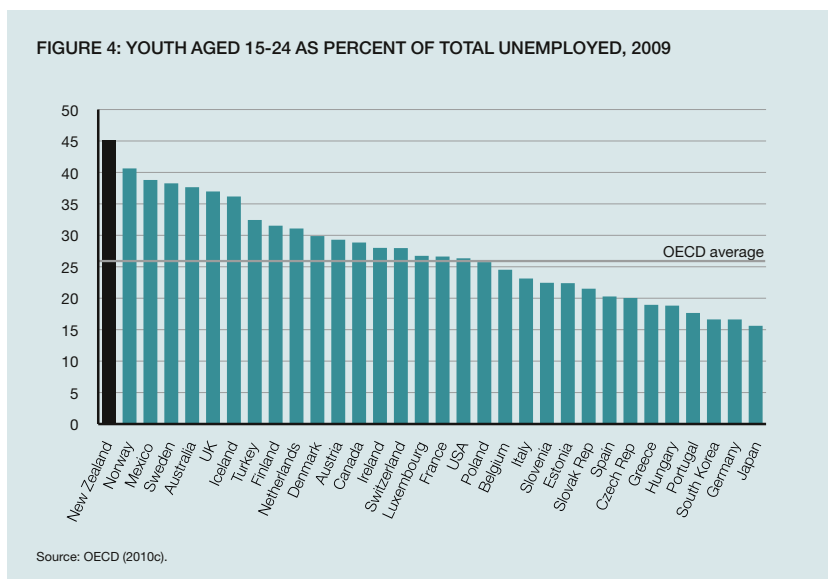
The school leaving age in New Zealand is 16 years, the same as around half of the OECD countries, but data shows New Zealand does not keep its youth in school for as long as many other countries. In 2008 the proportion of students graduating from secondary school in New Zealand was 78%, a rank of 17 out of 26 OECD countries. Nine OECD countries had graduation rates of 90% or more (OECD, 2010b).

Figure 5 shows that Māori and Pacific peoples are strongly over-represented among the unemployed. When many youth compete for few jobs the less well educated are going to be over-represented among those who remain unemployed.

FIGURE 5: UNEMPLOYMENT RATE BY ETHNICITY, 15+ YEARS, MARCH 2011, %
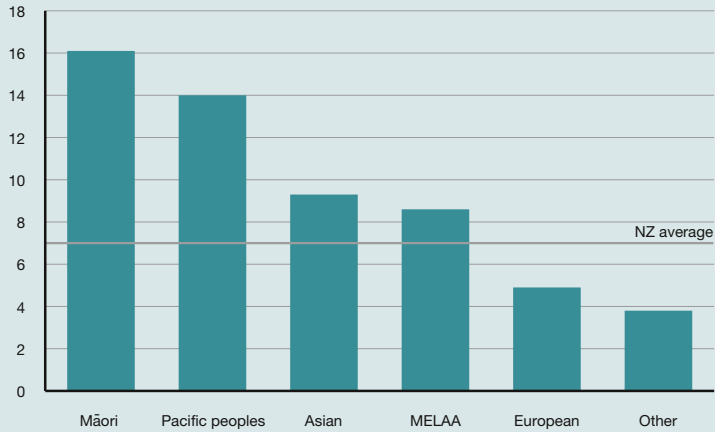
Source: Statistics New Zealand (2011b).

CRIME

Crime is complex. Statistics for crime are affected by reporting behaviour and crime statistics can increase solely because reporting or policing is increased. Many crimes are not solved so it is not clear who the perpetrators are.

Crime is disproportionately committed by youth. Youth are 15% of the population, but comprise around 40% of people remanded in custody and 25% of the prison population (Department of Corrections, 2009 & 2011).

The rate of imprisonment for Pacific people is three times, and for Māori seven times, that for Europeans (Department of Corrections, 2011).

FIGURE 6: PEOPLE REPORTING EXPERIENCE WITH CRIME OVER PREVIOUS 12 MONTHS, 2004-05, %
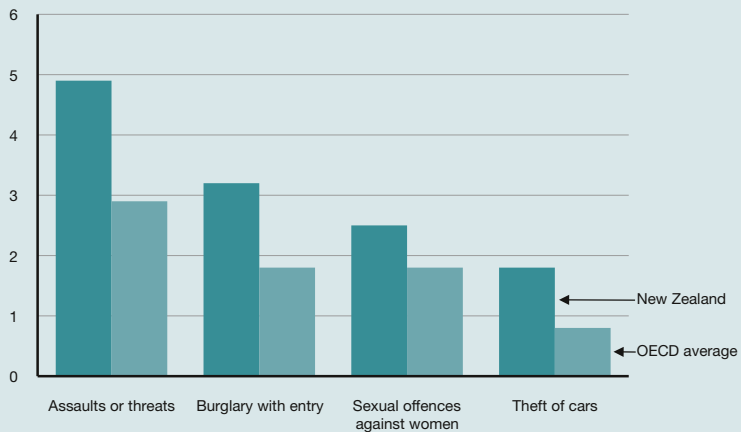
Source: OECD (2009a).

Figure 6 shows that for some representative crimes the risk of being a victim in New Zealand is roughly double the risk in OECD countries on average. Given that youth are significant perpetrators of crime it follows that New Zealand youth are more likely to commit crimes than youth in OECD countries on average.

Violent crimes harm victims and create fear and emotional responses that get attention. They affect the attractiveness of a country as a place to live and as a tourist destination.
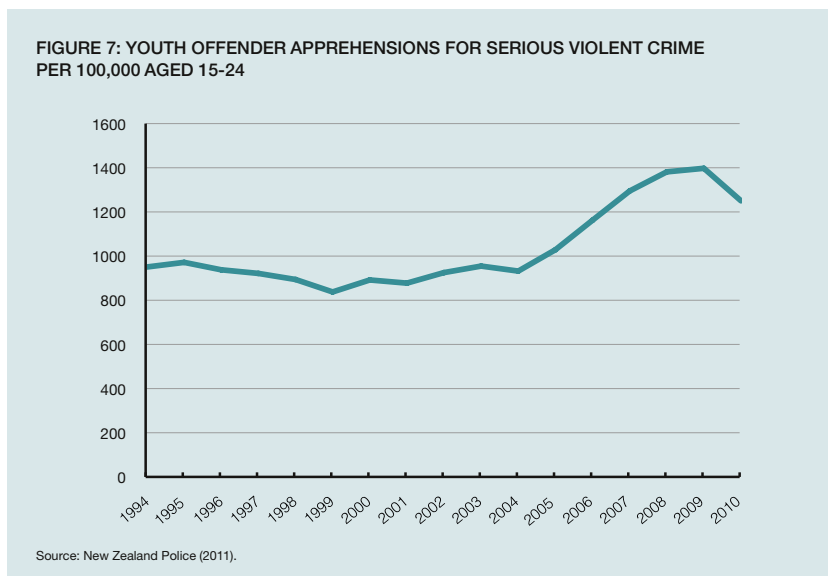
Apprehensions for serious violent crime committed by youth increased 60% in the ten years to 2009 before decreasing in 2010 (Figure 7). During the same period total apprehensions for youth fluctuated but decreased slightly overall (New Zealand Police, 2011).

FIGURE 7: YOUTH OFFENDER APPREHENSIONS FOR SERIOUS VIOLENT CRIME PER 100,000 AGED 15-24

Source: New Zealand Police (2011).

The feature that stands out in Figure 7 is the rapid growth in serious violent crime apprehensions since 2005. Four explanations are offered. The first is that focus on violent crime is leading to more reporting of violent crime, more stringent policing and more convictions. The second is that the methamphetamine epidemic is causing an increase in violence. The third, applicable since 2008, is that increased unemployment due to recession is leading to increased stress, causing more violent crime. The fourth is increased use of alcohol which places youth at increased risk of a range of crimes including violence.

It is beyond the scope of this project to tease out the causes of this huge increase but it seems likely that all four explanations contribute.

HEALTH AND SAFETY

Figure 8 shows that New Zealand youth death rates are high. Much lower youth death rates in Germany and the Netherlands indicate a large opportunity for improvement.

FIGURE 8: DEATHS PER 100,000 AGED 15-24, 2006 OR EARLIER

Source: World Health Organisation (2011).
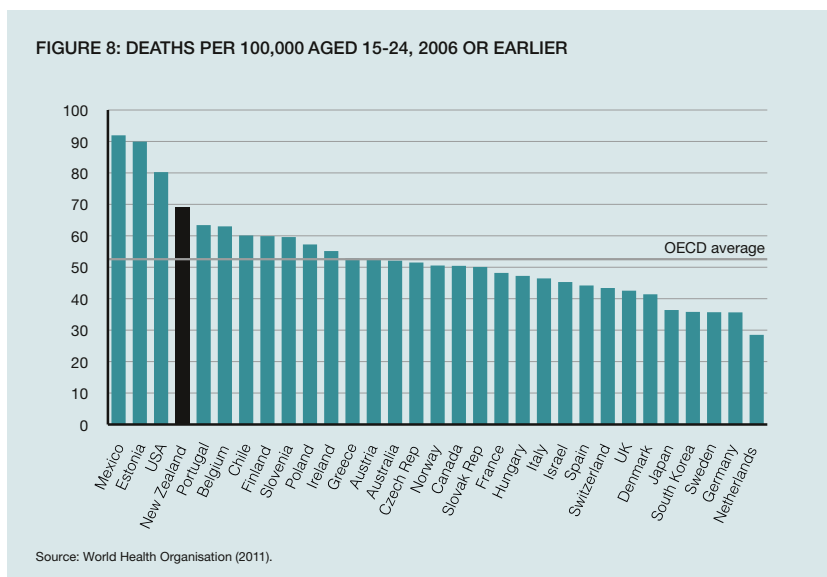
The causes of youth deaths in New Zealand are transport (38%), medical (25%), suicide (24%), injuries (10%) and assaults (3%) (Child and Youth Mortality Review Committee, 2009). A large proportion of youth deaths in New Zealand result from behaviour choices. For every death there are many serious and minor injuries too, with accompanying costs and suffering.

FIGURE 9: DEATHS PER 100,000 POPULATION AGED 15-24 BY ETHNICITY, 2005-07

Source: Statistics New Zealand (2011c).
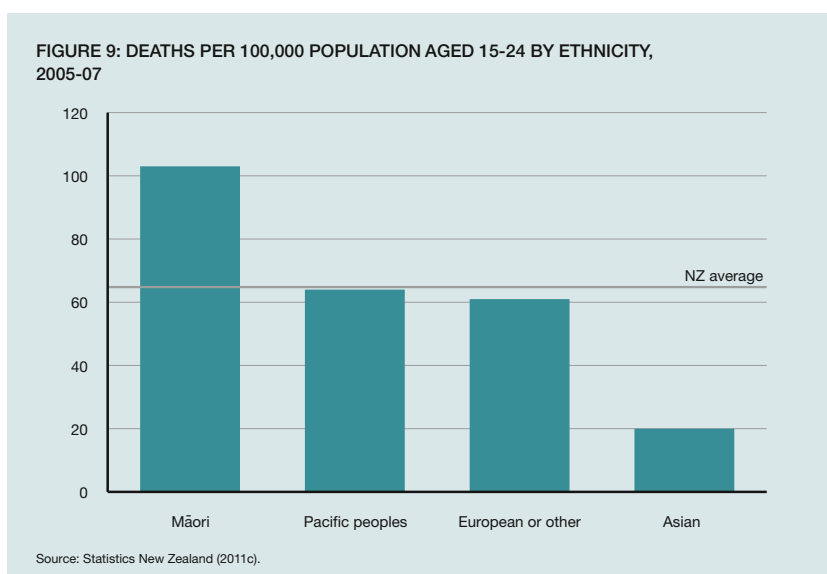
The risk of death for Māori youth is much higher than for other ethnicities, as shown in Figure 9.

New Zealand's suicide rate for 15 to 19 year olds is the highest in the OECD and double that of Australia. In 2008, almost one quarter of all suicides were by youth. Although the overall youth suicide rate has almost halved in the last decade, there has been no decline in the high suicide rate of young Māori (Skegg, 2011, pp.207-208).

Suicide is an indicator of unaddressed mental disorders and a lack of social cohesion and integration. People may commit suicide because they do not have 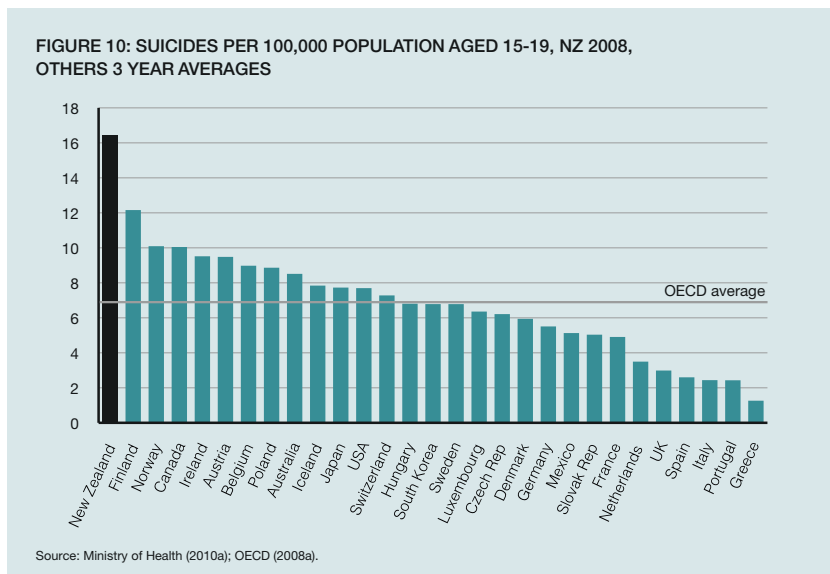the skills and resilience to resolve or overcome issues and then when they encounter issues, there are insufficient protective factors. Protective factors include an adaptive temperament, good self-esteem, problem solving skills, social support and networks including a close relationship with at least one family member, positive school experiences, and spiritual faith (Beautrais, Collings, Ehrhardt et al., 2005, p.40). High youth suicide rates are an important signal that all is not well for our youth.

FIGURE 10: SUICIDES PER 100,000 POPULATION AGED 15-19, NZ 2008, OTHERS 3 YEAR AVERAGES

Source: Ministry of Health (2010a); OECD (2008a).

There are many measures of health and safety but international comparisons for youth are not easy to find.

Smoking is harmful to the health and well-being of those who smoke and second hand smoke can adversely affect others, particularly children. For all adults 15 and above New Zealand ranked 7th lowest in a 2007 OECD comparison of daily smoking rates (Ministry of Social Development, 2010a, p.31) but most lifetime smokers start when they are teenagers (Harold, 2011, p.225).

FIGURE 11: ANNUAL PREVALENCE OF CANNABIS USE, AGED 15+, 1999 OR EARLIER, %

Source: United Nations International Drug Control Programme (2000).
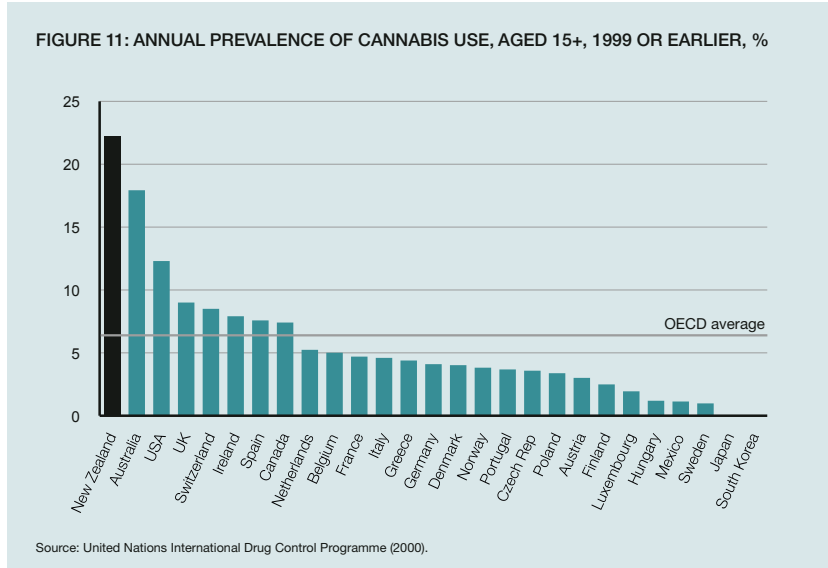
Figure 11 shows that the rate of cannabis use in New Zealand is very high compared with other OECD countries. Use of cannabis among young people is also high with 37% of 16 to 17 year olds and 52% of 18 to 24 year olds reporting they had tried cannabis (Ministry of Health, 2010b, p.38). By the age of 21 about 80% of young people will have tried cannabis, with 10% having developed a pattern of heavy dependent use (Fergusson & Boden, 2011, p.257). The rate of amphetamine use is also high; in 1999 New Zealand had the third highest rate of amphetamine use among people aged 15 and above (United Nations International Drug Control Programme, 2000).
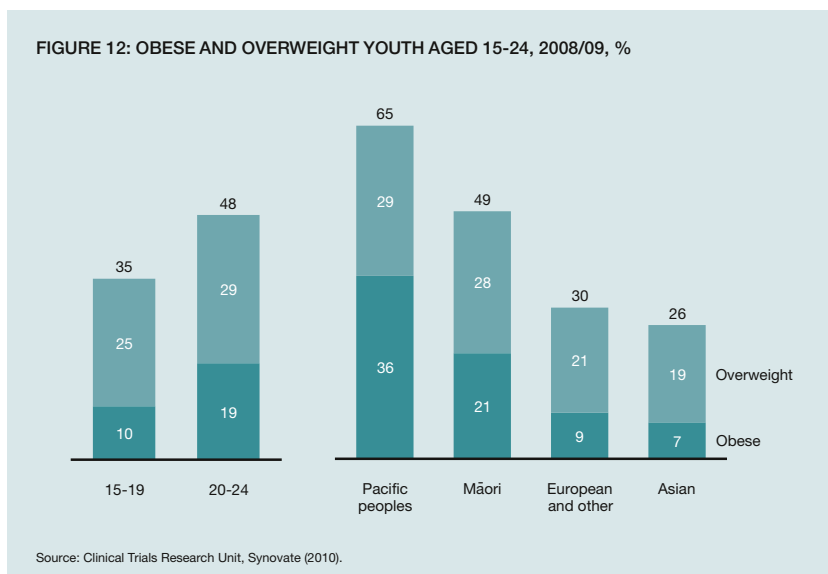
FIGURE 12: OBESE AND OVERWEIGHT YOUTH AGED 15-24, 2008/09, %

Source: Clinical Trials Research Unit, Synovate (2010).

Hazardous drinking is prevalent too, with 42% of males and 27% of female youth having drinking patterns that carry a high risk of future damage to physical or mental health (Ministry of Health, 2008). The misuse of alcohol by youth has been associated with increased risk of adverse outcomes including: motor vehicle collisions, injuries and deaths, crime, violence, sexual risk taking, mental health problems and victimisation (Fergusson & Boden, 2011, p.235).

Compared with the OECD average obesity level of 15%, adult New Zealanders' obesity is high (21%), having doubled from 1989 (11%) (OECD, 2009b). Figure 12 shows that 19% of 20 to 24 year olds are obese. Pacific and Māori youth are much more likely to be obese or overweight than European and Asian youth (Clinical Trials Research Unit Synovate, 2010, p.32).

Obese and overweight children and adolescents:
• Have an increased metabolic and cardiovascular health risk;
• Have low self-esteem;
• Have higher rates of anxiety disorders and depression;
• Suffer social pressures and bullying;
• Are more likely to be involved in substance abuse; and
• Demonstrate reduced scores on health-related quality of life questionnaires (Sloboda, 2011, p.274).

TEENAGE BIRTHS

Not all teenage births indicate a social issue. There are many children born to young parents who are doing well. But many are not.

New Zealand has the 7th highest rate of teenage births among the 34 OECD countries compared in Figure 13. Other countries with high teenage birth rates are more traditional societies where many marry young. In New Zealand, fewer of the parents are married.

In the year to March 2009, there were an estimated 6,000 mothers aged 16 to 19 and 79% were sole parents. Three quarters of teenage parents receive benefit income (Collins, 2010, pp.6-7).

Teenage births are associated with poor outcomes. Research set out in the Welfare Working Group's options paper (2010, pp.94-95) found teenage parents were more likely than those who delayed childbearing to have no educational qualifications and to have mental health or substance dependence problems. The most deprived areas of New Zealand have a teenage birth rate 6.5 times higher than the rate in the least deprived areas. Furthermore children of young

FIGURE 13: BIRTHS PER 1,000 FEMALES AGED 15-19, 2008
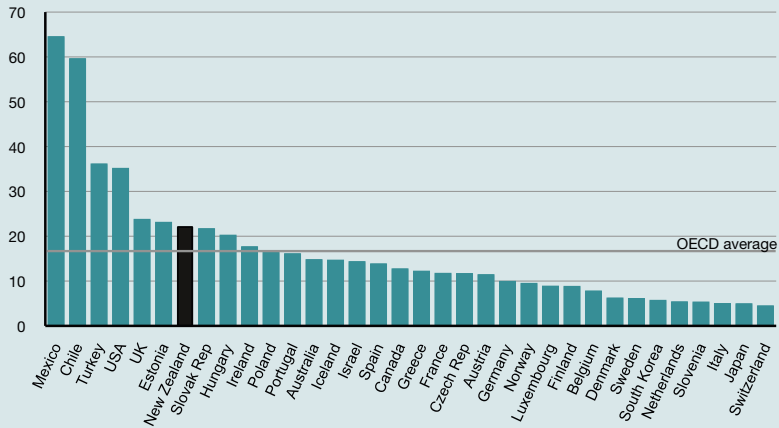
Source: OECD Family Database (2011).

parents are more likely to underachieve in education, go on to a benefit and have a low income in young adulthood.

Māori teenage birth rates are very high, and for Pacific peoples the rate is high too. The rate for Māori is higher than the rate for Mexico, the highest of the countries included in Figure 13. The rate for Pacific peoples is above the third highest country, Turkey.

FIGURE 14: BIRTHS PER 1,000 FEMALES AGED 15-19 BY ETHNICITY, 2006
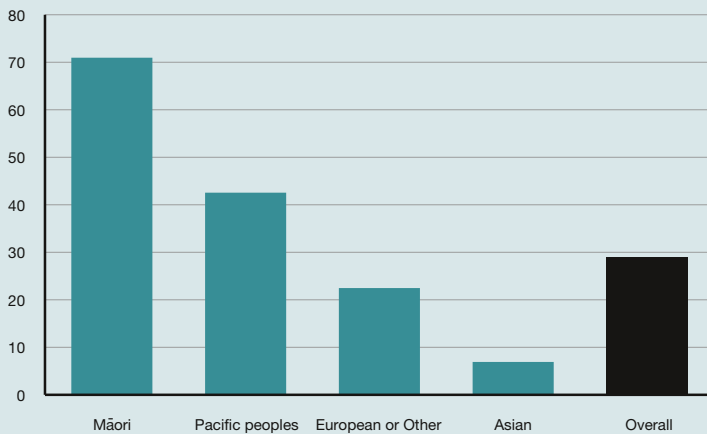
Source: Statistics New Zealand (2006).

AGGREGATE EFFECTS

The data presented in this chapter are summarised in Table 1. The pattern is consistent and unsatisfactory. New Zealand has come to accept this poor situation as normal. Occasionally specific issues result in high levels of publicity with calls for action to be taken, such as the recent highlighting of bullying, but after a time things go back to normal.

TABLE 1: SUMMARY OF NEW ZEALAND YOUTH DISADVANTAGE			
	Compared with OECD	Trend	Disadvantage concentrated in ethnic groups?
Education	Better	Flat	Yes
Unemployment	Worse 15-19 Same 20-24	Increasing Flat	Yes
Crime	Worse	Violence steeply increased 2004-09 before fall in 2010	Yes
Health and safety	Worse	Mixed	Yes
Teenage births	Worse	Increasing 2002-08 before fall in 2009	Yes

But things are not normal for New Zealand's youth. Table 2 shows the number of youth affected by the social issues surveyed in this chapter. For each issue there are many people affected. Most youth suffer set-backs or impediments to becoming established as adults and most will get over these set-backs. Many of the issues listed will not have a lasting effect.

TABLE 2: ESTIMATE OF YOUTH AFFECTED BY SOCIAL ISSUES		
	% of measured population	Number (000)
Ever used cannabis, 2007/08 (16-24)	48	280
Overweight or obese, 2008/09 (15-24)	39	250
Hazardous drinking, 2006/07 (15-24)	34	221
Mean PISA score below level 3 at 15 years (reading, mathematics and science)	33	214
Tobacco smokers, 2009 (15-24)	24	157
Unemployed, March 2011 quarter (15-24)	19	75
Teenage births, 2008 (15-19 females)	3	5

However the incidence of issues shown in Table 2 is very high. On average, each youth has two of the issues listed because the total of the percentages in the table adds up to 200. Further, some of the data only partly records what is happening. For example, almost 6% of teenage women aged 15 to 19 became pregnant in 2008, compared to the 3% who gave birth, so those affected by pregnancy is much higher than those who become parents (Statistics New Zealand, 2010). And if 3% give birth in a given year then the percentage giving birth at some time as a teenager will be higher.

Many youth are doing well. They perform well educationally and live healthy lives, they do not commit crimes or engage in risky behaviours. That must mean a minority of youth are facing several of the issues listed. The data on ethnicity shows that the social issues are concentrated among Māori and Pacific youth. There must be a core of Pākehā youth facing similar issues too, though their plight is not revealed by the statistics.

3 DIRECTIONS FOR IMPROVEMENT

It would be easy to conclude from the statistics presented that everything except the school system is broken and so everything needs to be fixed. The events represented by the statistics require responses to alleviate immediate harm and to remedy the long term consequences. We lock people up who commit serious crimes, fund benefits for teenage mothers to improve the welfare of children, and gear up the medical system to cope with obesity and diabetes epidemics.

The result of this thinking leads to the many interventions by government and private agencies designed to respond to and prevent youth social issues. That is the outcome usually observed when weak organisations organised in silos face big issues. The problems are so big that well-intentioned people select an issue small enough to improve with the resources available and make an effort to improve outcomes on that issue. That usually helps but does not get the big issues addressed. It is not getting the results desired for New Zealand's youth, or the trends would be more positive than they are.

The operational response is to spend more and try harder, focusing on solutions. The strategic approach is to understand the nature of the problems and focus improvement efforts where the most effective interventions can be made. The purpose of this chapter is to report the results of the New Zealand Institute's diagnosis effort.

## CENTRALITY OF YOUTH UNEMPLOYMENT

Figure 4 showed that almost 45% of New Zealand's unemployed are youth aged 15 to 24, the highest proportion in the OECD. That does not give the whole picture though, as New Zealand's 20 to 24 year olds have an unemployment experience that is similar to the OECD on average (Figure 15).

FIGURE 15: YOUTH AGED 20-24 AS PERCENT OF TOTAL UNEMPLOYED, 2009

Source: OECD (2010c).
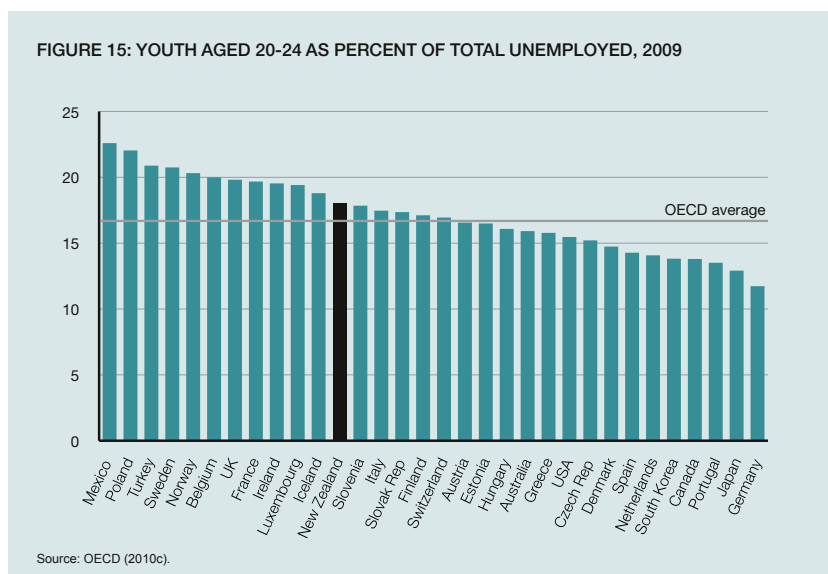
Unemployment is concentrated among 15 to 19 year olds and the data in Figure 16 provides the crucial insight. First, it confirms that New Zealand's 15 to 19 year olds are carrying a very high unemployment load relative to youth in other countries. Second, it demonstrates that many countries with low unemployment for 15 to 19 year olds keep that age group out of the labour force. In half the OECD countries shown, 15 to 19 year olds comprise less than 3% of the total labour force so few youth are exposed to the risk of unemployment.

FIGURE 16: SHARE OF LABOUR FORCE COMPARED TO SHARE OF UNEMPLOYED, AGED 15-19, 2009

Source: OECD (2010c).
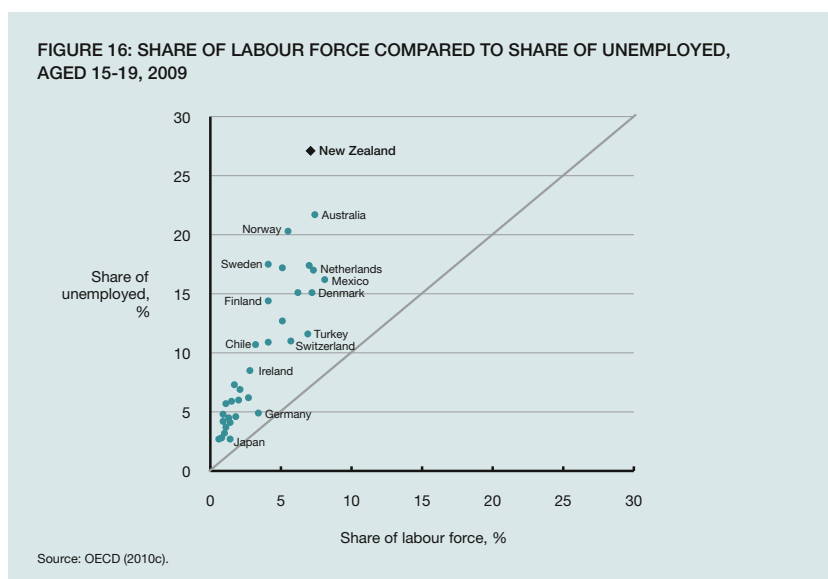
Most of these OECD countries are protecting their youth from unemployment by keeping them in secondary and tertiary education. New Zealand has high rates of tertiary education relative to other countries but the pattern is different. Here the high tertiary education rates are achieved because more adults enter tertiary education when they are older rather than going directly there from school (OECD, 2010b, p.56 and OECD, 2010c).

In New Zealand, youth aged 15 to 19 comprised 7% of the labour force and 27% of unemployed in 2009. So why does New Zealand have so many young people in the labour force instead of in school or tertiary education?

THE SCHOOL PARADOX

The assessments of school performance conventionally made, including by the New Zealand Institute in our NZahead scorecard, rate New Zealand's education performance strongly because of high PISA scores, high tertiary participation and the creativity, inventiveness and effectiveness of our population. It is our conclusion that these measures do not show the complete picture and that inadequacies in the education process lie at the heart of youth social issues and disadvantage.

Too many youth are leaving school early and far too many are not finding their way into work or tertiary education. In 2008 18% of OECD 15 to 19 year olds on average were not in full or part-time study compared to 26% in New Zealand (OECD, 2010b, p.303).

Retaining the focus on what has to go right for successful youth rather than what goes wrong reveals the two levers that would transform outcomes: engagement and the school-to-work transition.

If youth remained engaged at school then the average leaving age would rise and youth would be better equipped to compete for jobs when they leave school.

Hill (2003, p.16) reports that youth aged 15 to 19 with no school qualifications were twice as likely as youth on average to be 'inactive', meaning they have less than one hour per week of education, employment or training. More than half of the inactive youth aged 15 to 19 had no qualifications.

If the school-to-work transition was more successful then youth who did leave school would be much more likely to find their way into work and so less likely to be exposed to the consequences of unemployment.

Schools are not currently being managed to retain engagement and to achieve successful school-to-work transitions. Schools are charged with ensuring that students learn successfully and the recent introduction of National Standards reinforces that singular focus on learning outcomes.

Our contention is that the focus on learning outcomes is too narrow and the narrowness of focus is contributing to the high rates of youth social issues in New Zealand. Do not misinterpret this; we are arguing for learning plus engagement plus school-to-work transition success, not for reducing the emphasis on learning outcomes.

It is an old management adage that what gets measured gets managed. In the school system, measurement focuses on cognitive learning outcomes to build literacy, numeracy, scientific reasoning and other highly valuable skills. We are not systematically measuring and managing engagement and school-to-work transition success. As a result too many youth leave school early without finding their way into productive work so are exposed to higher risk of social issues.

This is not the schools' fault. They are doing what they are asked to do; provide learning opportunities and passing students to the next stage. It is the same for tertiary institutions. They compete to attract students, provide learning and pass

them to the next stage. Nor is it the fault of employers. They simply compete for the graduates from the secondary and tertiary education systems and recruit from overseas if they cannot fill their needs.

Each layer, primary, secondary, tertiary and employer, is playing its part. But the system overall is broken. It is broken because the parts, operating as silos, are not working together to achieve the best possible outcomes for youth. And they are not working together because governance at the highest level has lost sight of the most important purposes of the socialisation system. Instead of focusing on the outcomes of the system as a whole it is over-emphasising achieving best possible performance in each of the parts.

Māori and Pacific youth are much more likely to leave school educationally disadvantaged, as demonstrated by the PISA data. That makes them more likely to be exposed to the risk of other disadvantages too. Absence of improvement trends means much more needs to be done, assuming New Zealand society is unwilling to continue to accept these outcomes.

But the question is what? Many arguments are made that the issues for disadvantaged ethnic groups and others who are disadvantaged are issues that arise from their cultures, their communities, their families or their pregnancy and early childhood experiences. There is no doubt that many children start school disadvantaged already and that their learning progress is impeded as a result of those disadvantages.

Those disadvantaged children spend 10 to 13 years in schools though, in a controlled environment designed to educate and socialise them. If after so many years they leave without acquiring the social skills and competences required to succeed as adults then whose fault is that, theirs or the school system whose purpose is to educate them?

There are many examples where individuals or groups have entered school disadvantaged and left with successful outcomes. The challenge is to make those successes much more widespread. It is not an adequate answer to blame the cultures, families or early experiences.

That is not the same thing as saying that everyone could succeed. Many children have or will acquire attributes that mean they leave school seriously disadvantaged even with the best possible schooling experience. The challenge is to reduce that number to a minimum. That implies focusing effort on maintaining engagement which has not been a core purpose of schools, nor systematically measured previously.

The school-to-work transition must be improved too. Again, there are sufficient examples of success to demonstrate that much better outcomes are achievable. Proposals to improve the school-to-work transition are offered in chapter five.

If efforts to improve school engagement and the school-to-work transition are focused initially on the students who are at greatest risk of disadvantage and the interventions are successful, then many more young people will avoid unemployment and the resulting social issues. Those two interventions appear to be the most important and accessible opportunities to materially improve outcomes for disadvantaged youth in New Zealand.

NEED TO INCREASE STUDENT ENGAGEMENT

Successful education requires more than just turning up to school. For students to be successful they must also value the learning opportunity. The experience needs to be a positive one for them and it is also very helpful if students recognise that successful learning will lead to better life outcomes.

If students are engaged then they will make the effort to learn. More effort means more successful learning.

Too few New Zealand students are remaining engaged at school. Research shows that engagement reduces each year from year 7 to year 10, with the largest drop between years 8 and 9 when most students transition to high school. The drop in engagement is steepest for Māori students (Darr, 2009, pp.93-94).

By age 16 an estimated 36% of students are reported to be usually or always bored, 29% rarely or only occasionally enjoy learning, and one quarter want to leave school as soon they can, or already have (Wylie, 2009, p.2).

Once students have disengaged from school their learning effort is reduced, their results suffer and they are less likely to be motivated, or able to succeed at the next stage of their learning. Many subjects build on prior learning so once a student has fallen behind it is difficult to catch up again. It is much better to keep students engaged than to try to re-engage those who have become disengaged.

FIGURE 17: LEAVING AGE FROM INITIAL EDUCATION, 2006
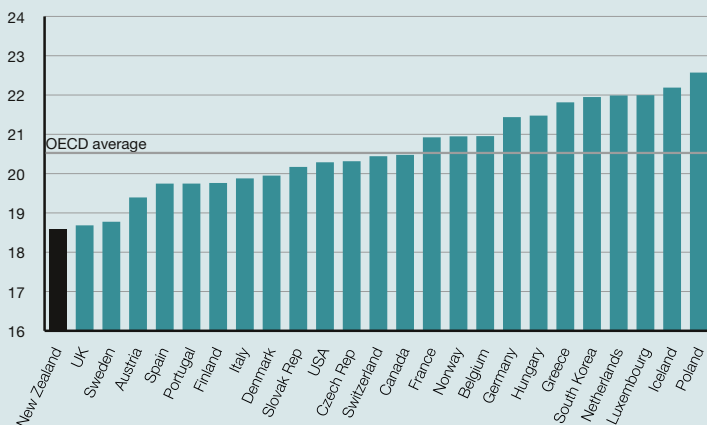
Source: OECD (2008b).

According to the Ministry of Education "more of our 14-18 year olds have disengaged from the education system than in many other comparable countries" (2009, p.23). Having a higher proportion of students disengaged leads to lower retention at school and to New Zealand having the lowest median leaving age from initial education in the OECD.

Improvement efforts are being made. There is a survey of engagement that is available to schools which is a tool to measure teaching effectiveness and develop engagement (see NZCER's Me and My School survey). The Māori Education strategy Ka Hikitia includes a special priority to improve engagement of Māori students.

Despite that, New Zealand does not yet have nationwide measurement of student engagement and has no nationwide efforts to increase engagement. The large scale intervention efforts respond to symptoms of disengagement such as truancy.

E-LEARNING IMPROVES STUDENT ENGAGEMENT

E-learning is learning and teaching that is facilitated by or supported through the smart use of Information and Communications Technologies (Wright, 2010, p.7).

E-learning content may be developed once and used many times. The effort to ensure the content and delivery is high quality can be much greater than is usually possible for a teacher preparing for a class that will be delivered once or a few times. Students can learn at their own pace, perhaps pausing and repeating the information until it is well understood. They can go back and review content when they need to. These features of e-learning make it easier to learn.

But e-learning is much more than just a passive way to learn new content. Students use digital tools to produce their work and to collaborate with one another. They can find their own content. They produce content that is communicated to others outside the school; to parents, communities and to audiences around the world.

Students in classrooms with their own laptops spend more time on collaborative work, produce writing of higher quality and greater depth, spend more time doing homework, readily engage in problem solving and critical thinking, and consistently show deeper and more flexible uses of technology than students without individual laptops (Gulek & Demirtas, 2005, p.3).

The student-teacher relationship changes with e-learning. Students spend more of their time working individually. The teacher spends less time standing up the front talking to the class as a whole. More teacher time is devoted to working with students as individuals and in small groups, so a better understanding of learning styles and needs results, and the educational experience can be better customised to meet those needs.

It is not enough to make e-learning opportunities available. "The pedagogy and classroom climate, expectations and school organisation and systems are all factors that affect student engagement" (Gleeson, 2010, p.13). Involvement of parents and the community matter too. Successful e-learning is embedded in school improvement programmes that have many elements.

E-learning is engaging. The proof of that for us was when we visited classrooms where e-learning was being used. We are not experts in education nor in engagement but we could see that every single student was engaged in every classroom we visited. No pre-warning or preparation, just unannounced visits. They were almost all Māori and Pacific students at decile one schools.

Students who become disengaged at school may continue to turn up and passively go through the motions. Teachers may not recognise or report when students become disengaged so it may be difficult to reverse the disengagement by the time it becomes apparent.

With e-learning as we have seen it implemented, the teacher and student content is visible to all teachers. A student's disengagement is much more likely to be recognised immediately and responded to effectively.

E-learning is 21st century learning and is an important reason why schools are being given priority for the fast broadband roll-out.

Academic performance improves too, not just engagement. Last year at Manaia View School, which is decile one and has a 90% Māori roll, 89% of their year seven and year eight students performed at or above the level expected for their age in reading, and 71% in writing. The corresponding figures for 2008 were 58% and 32% respectively (Manaia View School, 2011).

At Pt. England School, also decile one, the average performance of the students at five years old was around the 10th percentile, meaning 90% of five year olds performed better when they started school. By year seven, the class average was above the New Zealand average for reading.

FIGURE 18: VALUE ADDED SNAPSHOT FOR READING AT PT. ENGLAND SCHOOL

Source: Pt. England School (2010).

EDUCATION SYSTEM A GOOD PLACE
TO INTERVENE

Many researchers have pointed out that experiences during gestation and early childhood are very important determinants of success later in life (e.g. Gluckman, Low & Franko, 2011, p.20).

Interviews with people in education confirm that conclusion; many children are starting school seriously disadvantaged.

In the introduction we argued that it is better to make the socialisation process work properly in the first place rather than try to remedy issues that arise when things go wrong. That means it would be better to intervene earlier than at school so that the disadvantage is removed or at least reduced as soon as possible. We support efforts to remove disadvantage as early as possible, subject to the usual caveats that intervention investment should be based on evidence of a need, evaluation confirming effectiveness and benefit/cost analysis.

However, the e-learning based intervention we propose should be implemented too because:

• It is proving difficult to reach those most in need, and early intervention efforts to date are not preventing disadvantaged children arriving at school and developing social issues later;

• A school based e-learning intervention can reach almost all disadvantaged children, delivering a huge improvement in engagement and attainment and reducing future youth disadvantage;

- The educational attainment benefits alone would justify the introduction of e-learning, regardless of the additional benefits also expected from reducing other future youth disadvantage issues; and
- If youth in the current generation have better education and employment outcomes then their children will be less disadvantaged too, helping break the generational cycle of disadvantage.

E-LEARNING SHOULD BE SCALED RAPIDLY AND SYSTEMATICALLY

A few schools are getting great results with e-learning. There are some research projects evaluating e-learning outcomes and other projects developing understanding of how to improve engagement.

Tomorrow's Schools set New Zealand's schools free from the regimentation of centralised control over education. An investigation of how to best improve high-performing school systems concluded that devolving governance and management to the schools is the best approach for learning organisations. However the same study concluded devolving governance and management from the centre is not the best approach for weaker systems where student outcomes are poor and stronger improvement capability is required (Mourshed, Chijioke & Barber, 2010, p.111).

The approach for weaker systems is more applicable for the lower decile schools in New Zealand because the average PISA scores for the Māori and Pacific populations are in the lower categories and the lower decile schools have disproportionately high rates of Māori and Pacific students.

The preferred governance and management solution for weaker school systems involves using data to identify where improvements are needed and addressing the specific areas of lagging performance.

The value of providing support for change at a district level is highlighted by data on school size in New Zealand; decile one to three schools have on average around 220 students compared with an average of over 400 students in decile 10 schools, so are less able to access resources through their networks.

The challenge to provide professional critical mass in governance and change management will be even more acute for introducing e-learning. The challenge of changing a school's teaching using e-learning technologies is likely to be beyond the capability of most low decile schools.

The schools that are succeeding with e-learning are doing so with high resource input and leaders who have relevant specialised skills. They are grouped in clusters so learning from leading schools can be shared with other schools and economies of scale can be accessed.

The most basic requirement for e-learning is the introduction of new information and communications technologies and the equipment required, but this is not enough on its own. As the competences needed to install e-learning capability are not likely to be readily found in low decile schools the Ministry of Education must ensure they are provided, or the effort will falter.

The school improvement changes required to introduce and use e-learning may be best delivered as a set of principles and processes that are common for all schools but implemented in different ways, depending on each school's specific circumstances and preferences.

Successful scaling of e-learning in an effective school improvement context will require:
- Provision of turnkey technology solutions for schools to install, including fast broadband connectivity, school IT systems, e-learning tools and user devices;
- Abstraction and communication of the principles that should be used within the schools to deploy e-learning, with guidance as to how these should be customised to match circumstances; and
- Support at a district level to ensure the professional skills required are available where and when they are needed.

Rapid roll-out of e-learning within a well-formed school improvement effort will require effective methods for learning what works best at a district, school, class and student level. The project will advance most effectively if there are strong mechanisms to transfer best practice from one unit to the others.

With the devolution of governance and management accountability to schools and the traditional but changing norms around privacy of classrooms, that will present a significant challenge. In our investigations we could not find a best practice transfer mechanism within the school system. That might be acceptable for Tomorrow's Schools which are meant to find their own way, but best practice transfer is needed to rapidly roll-out e-learning.

5 SCHOOL TO WORK TRANSITION

Many young people are leaving school but are not finding their way into permanent work, resulting in high levels of unemployment. Part of the problem is that many youth have become disengaged at school, failed to become well-qualified and so are not competing successfully with older workers. The problem is especially acute now that jobs are less available than they were prior to the recession.

A case has been made that removal of the youth minimum wage just as the recession began has reduced the competitiveness of our youth as job applicants, contributing to the youth unemployment increase (Crampton, 2011; Douglas, 2011). New Zealand has had high youth unemployment relative to adult unemployment for a long time though, so removal of the youth minimum wage is not the source of the problem, though it may have exacerbated the situation recently.

The eight countries in the OECD (2010d, pp.103-104) with a youth minimum wage do have lower youth unemployment, on average, than the countries without a youth minimum wage but there are many countries that have low youth unemployment and no youth minimum wage.

Our interviews have indicated that the way New Zealand education is organised to transition youth from school to work is contributing to high youth unemployment.

Education, like many other publicly provided services, is decentralised, with competition among the units being used as the means to encourage performance improvement. Secondary school success is based on academic rankings. Tertiary educational institutions compete to attract students and the funding that the students bring. Success depends on being able to offer courses that students find appealing, though there is no robust test to ensure that the courses offered will lead to work for the graduates.

Educational institutions are not responsible for ensuring that students find work at the end of their courses. Most do not track what happens to their students after they graduate and there are weak connections between the institutions and employers.

Connections with employers may be discouraged in some cases by the funding rules. If an employer requires training that does not meet the policy rules for an existing qualification then either a new qualification must be established or public funding would not be available because the employer would be expected to pay.

There is no strong mechanism in New Zealand to match aggregate future workforce needs with education capacity either. In a world where workforce needs are changing rapidly, that leads to costly mismatches. Employers may find that there are not enough workers of the types they need. Even if the type is available, the training provided by the educators may not match the needs of the employers.

The result is that employers may recruit offshore to secure the skills they need while there are unemployed youth in New Zealand either insufficiently skilled or inappropriately skilled for the jobs that are available. It seems likely that New Zealand is training too many people in some skills, so graduates are going overseas to find work because there is insufficient suitable work available here.

For example, New Zealand trains large numbers of accountants and lawyers relative to other countries and smaller numbers of scientists and engineers. There are strong arguments that training more scientists and engineers and fewer accountants and lawyers would improve economic outcomes overall, but it is hard to see what mechanism should drive the adjustment, given the organisation of education. It may not be a big problem for the individual accountants and lawyers; if they do not get a job here they can take their skills elsewhere. However it does not make sense as an economic strategy for New Zealand.

In an educational system that seems so hazardous for young people to navigate you would expect to see strong career guidance. While some schools operate good practice guidance, others are less rigorous. In a longitudinal study of young people in the Wellington region, 41% indicated they had never talked to a teacher or career advisor about their future options and 45% had not taken part in related activities such as visiting a tertiary institution or attending a career expo (Wylie et al., 2008, p.28). Most of the students (80%) indicated their family was a useful source of information about careers yet many parents would have little knowledge of the many career possibilities now available, so are unable to provide expert knowledge. Many of the students had not taken part in the most common school based career activities, with few given career guidance based on a professional understanding of their interests and aptitudes.

The result is that many students commence courses they are not suited to, and many fail to complete the courses chosen. One third of students commencing higher education courses fail to complete the first year (Education Counts, 2010). The majority of trade apprentices do not complete their training. Around 40% complete a programme and 30% gain a national qualification (McPherson, 2011, p.34).

The New Zealand school-to-work transition does not seem to be working well, which raises the question of what can be learned from other countries.

COMPARISON WITH INTERNATIONAL PRACTICE

Pathways that link mainstream education with employers

There are two kinds of education system used in developed economies. New Zealand, along with the USA, UK and Australia, has a unitary system which provides one kind of education for all students. Those who succeed proceed to academic and professional careers and those who are less successful may find their way into trade and services occupations.

In some other countries including Austria, Denmark, Finland, Germany, the Netherlands, Norway and Switzerland there is a dual system where from a young age, around 14 or 15, young people are able to select an educational programme that combines classroom and workplace learning (Symonds, Schwartz & Ferguson, 2011, p.15). The programme teaches relevant academic skills, establishes a strong work ethic and provides qualifications that have value in the labour market.

In all of these systems employers or their representative organisations play a major role in defining occupational qualifications, providing paid apprenticeships or other workplace opportunities, assessing student performance and awarding certificates, and running the programmes (Symonds, Schwartz & Ferguson, 2011, p.16).

New Zealand offers bridging experiences to the workplace, usually from age 16 or 17. There is a particular focus on youth who are at risk of leaving school without any transition path. New Zealand programmes are usually established in response to problems with the transition at a national or local level, such as difficulties finding skilled staff or numerous youth stranded in unemployment. There is no framework that connects the programmes and different options are available in different localities.

There is much less involvement of employers in the design and delivery of the programmes. Employers are mainly involved as employers of the youth.

Linking income support with work or training

In the Netherlands, youth who need income support are placed in low paid subsidised work or training. Non-compliance leads to a reduction in the benefit paid (Roxburgh, Mischke, Regout, 2010, p.50). Australia has committed to change the participation requirements for income support for youth aged 15 to 20 so education and training becomes the single most important precondition for support (Scarpetta, Sonnet & Manfredi, 2010, p.28).

In New Zealand, the incentives are focused on ensuring the unemployed are making an effort to find work. Beneficiaries who have not secured employment after 12 months may face benefit reductions if they do not meet job-seeking obligations.

Funding retention of students in education

In 2009 the Australian states and territories agreed to the goal of having 90% of under 25 year olds complete the equivalent of an upper secondary qualification (Scarpetta, Sonnet & Manfredi, 2010, p.28).

In New Zealand, places in tertiary education have been capped as a cost-saving measure. Additional places are made available via the Youth Guarantee Scheme as a response to high youth unemployment.

Career planning and outcome tracking

In some countries schools are required to stay in contact with those who leave until they are established in further education or work.

Denmark requires all 15 to 17 year olds to have an education plan, developed in collaboration with parents, the school and the Youth Guidance Centre. The education plan is meant to lead to further education or describe what the young person will otherwise be doing. If young people do not follow their education plan their parents risk losing child benefits (Scarpetta, Sonnet & Manfredi, 2010, p.29).

The Youth Guidance Centre is an institution that is separate from schools with primary responsibility for guiding under 25 year olds through the transition from compulsory school to youth education or to the labour market.

Delivery of career guidance in New Zealand is the responsibility of individual schools. As a result, delivery is inconsistent and many students make difficult and important decisions without an adequate information base and professional support.

Careers NZ is the government agency responsible for helping New Zealanders make well-informed decisions about their careers. It offers free, expert assistance and information. However, schools' use of the service varies and Careers NZ has no mandate to ensure good career guidance is available throughout the education system.

SUCCESSFUL INTERVENTIONS

Focused effort to improve the school-to-work transition can make a big difference and there are many examples from communities throughout New Zealand, including Otorohanga District.

Part of Otorohanga's success involved lifting apprentice completion rates to a record 96% through dedicated pastoral care and mentoring 24 hours by seven days by a local coordinator. Help to deal with practical work, family and daily life issues, many technically not an employer's concern, has been provided to bolster students as they struggle to become full participants in the working world.

CASE STUDY: OTOROHANGA – ZERO YOUTH WASTE

In 2004 Otorohanga businesses were struggling with skill shortages. Despite offering good trade jobs and apprenticeships they could not find locals to employ and were forced to look elsewhere and overseas. Some businesses were thinking of leaving town. A small group of passionate business and local people, along with the newly elected Mayor Dale Williams, investigated why school leavers were not taking up these opportunities. They found young people were leaving the District to take up pre-employment qualifications and study but were not coming back. Potential trades people were in effect being exported. The business community was not connecting tightly with the high school and opportunities to put careers advice in front of young people were not being created. To make young people more attractive to businesses and local businesses more attractive to young people, a suite of eleven projects was launched.

Since November 2006, youth unemployment has been virtually eliminated, with zero to four people aged under 25 years registered as unemployed. Businesses have relocated to the area because of the support offered to employers and the resource of young, trained workers. Back in 2005, youth were responsible for nearly half of all resolved crime, now less than one in five crimes is perpetrated by young people. Otorohanga is a safe, tidy, vibrant community with minimal graffiti or vandalism. The main street is hung with floral baskets that don't get stolen, its kiwi sculptures don't get vandalised and its kiwiana murals don't get tagged. Young people are now involved in rugby teams, they are buying houses, participating in the community and in decision making. All of these benefits have come out of supporting young people in the transition from compulsory education to the next stage of their life, and by giving young people the opportunity to stay and work in the area.

Otorohanga District Council's expenditure over the last six years on all the youth programmes was about $70,000 in total and that amount is less than the Council's annual budget of $15,000 prior to 2005 for dealing with issues such as painting out graffiti, repairing broken fences, etc.

In BERL's ranking of 72 Territorial Local Authorities by nine key performance indicators, Otorohanga District was identified as the biggest climber in 2010 moving up 46 places from 64th to 17th place overall. Most of this performance was due to growth in full-time equivalents (FTEs) and GDP growth over the past year (Dustow, Dixon & Nana, 2011, p.5).

"Employment is at the absolute forefront of all of this – it's not possible without employment."

Dale Williams, Mayor Otorohanga District Council

Another example is the Counties-Manukau District Health Board project, Grow Our Own. It is dedicated to having more Māori and Pacific people from South Auckland consider health as a career and recruiting a workforce that better reflects the community being served. The aim is to have more than 200 new nurses, midwives and other health science practitioners in training, with more than 100 scholarships awarded to students in the first year of the initiative.

In early 2011 Health Science Academies were established at three local secondary schools with about 25 students at each, learning science and engaging with health professionals at Middlemore Hospital. Students at ten local secondary schools have also been offered the opportunity to learn about health careers by the Health Could B 4 U programme.

Hawke's Bay District Health Board's Programme Incubator also targets students at low decile schools motivating them to choose a health career and has been successfully transferred to five other DHBs.

Manukau Institute of Technology's Tertiary High School is a collaborative initiative between it and low decile local secondary schools. Students who have an interest in technical or trades occupations, but are underperforming at school and likely to disengage and leave without qualifications, are identified in Year 10 for entry in Year 11, aged 14-15. The course involves students completing secondary schooling to NCEA level 3 and obtaining a two year industry recognised Career and Technical Education qualification. Work, study and personal skills are developed with a trades focus while socialising younger students into a post-secondary environment. Holistic support with high levels of supervision, monitoring and pastoral care provides a more flexible transition for at risk students.

Results after one year reveal a dramatic transformation with 78% of students obtaining 80 or more NCEA level one credits and almost all the students

obtaining some NCEA level two or three credits. Many of these students would have previously been expected to have achievement levels of 20 or fewer credits.

PROPOSALS

Four initiatives would improve the school-to-work transition materially.

The first is to establish vocational and technical pathways to work that begin at a younger age and that are positively encouraged and recognised as leading to employment success. From year 7, learning about work should be introduced and work skill development should begin.

Second, develop a national view of future workforce requirements and adjust education capacity to more closely match the supply of workers that will be needed.

Third, strengthen the connections between employers and educational institutions so employers have more input into the content of education and earlier links with potential employees.

Fourth, provide better career guidance and transition support to students as they make their way from school through study or training and into the workplace. Make a central agency, such as Careers NZ, responsible for oversight of the careers advice system and framework, setting targets, ensuring provision of high quality advice to all students and monitoring and reporting outcomes. Require active career planning and tracking for all students, not simply those at risk or those who are headed for academic success.

6 ECONOMIC BENEFITS OF INVESTMENT

E-learning for engagement and improving the school-to-work transition are proposed to reduce youth disadvantage in New Zealand. The initiatives should be focused first on the most disadvantaged.

E-learning requires four layered components to work well: connectivity, the e-learning system, local implementation and student devices.

Government has committed to funding the ultra-fast broadband network and has announced it will give priority to connecting schools. There remains a challenge to provide a turnkey connection service to the schools because getting connected requires skills that most schools do not have available.

Connections can be accompanied by the utilities and applications that provide the basic e-learning system functionality. E-learning functionality should be provided centrally because requirements are the same for all schools and because each school, acting alone, would face a large hurdle to assemble the required systems and tools.

Local implementation, the third component, includes the teacher training and pedagogy changes required at each school to get the best from e-learning. Costs of implementation may be partly covered with existing spending provided there is a central effort to identify and communicate the implementation principles that should be applied at all schools, customised as required to fit local circumstances.

The final component is student devices. At Pt. England School the costs are partly subsidised by parents who pay $15 per month or $180 per year.

So what does that all add up to for e-learning? It is difficult to tell precisely at this stage but an indication is provided by a proposal to roll out e-learning to 2,400 students in the Tāmaki area (Manaiakalani, 2010). The total cost is around $600 per student for the first four years and then $375 per student thereafter. The initial cost for this example should be high relative to expected long run costs because some of the costs are for fixed and semi-fixed elements such as pedagogy research and teacher training, and some of the costs will reduce with volume and time, such as device purchases. There are also contributions from parents to net off.

Assume the incremental cost averages $400 per student per year on an ongoing basis.

Decile one to three schools are provided additional funding by the Ministry of Education. On average this is $475 per year more per student than decile six plus schools, enough to make a contribution to the per student costs, though that money is already being spent on other services at the low decile schools.

The benefit depends on the size of the improvement in engagement, retention at school, academic achievement, employment competitiveness, unemployment rate and social issues.

An indication of the materiality of the gains available can be obtained by taking the current costs for youth issues and estimating the reduction if New Zealand outcomes looked more like outcomes in better performing OECD countries.

Table 3 shows the estimated current costs for youth from unemployment, incarceration and teenage births, and lost income tax revenue. These cost items represent only part of the total costs that result from failure to complete the socialisation process successfully. They exclude costs for lower employability and productivity later in life, non-incarceration costs of crime, costs from drug and alcohol use and costs from suicide. Costs for current remediation interventions are also excluded, along with costs for responding to issues in the next generation.

The number of youth contributing to potential income tax revenue has been estimated by arbitrarily assuming half of the total youth currently unemployed, incarcerated, or teenage parents on the benefit would otherwise be in education, and half in the workforce. We have not estimated the additional cost of providing education based on assuming that those costs are offset by higher incomes and taxes later in life.
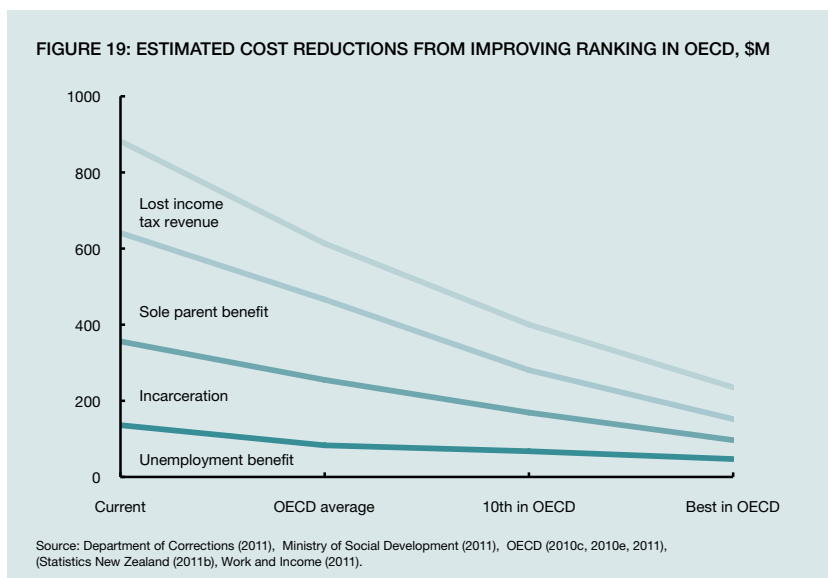
The analysis is crude but revealing.

TABLE 3: ESTIMATED COSTS AND POTENTIAL INCOME TAX REVENUE			
	Number of youth (000)	Annual cost per youth ($000)	Cost ($m)
Potential income tax revenue	48.1	5	241
Youth on sole parent benefit	19.0	15	285
Incarceration	2.2	100	220
Youth on unemployment benefit	17.1	8	137
Total			883

The gains available from the two proposed interventions depend on how much of an improvement results and that is hard to measure without a trial. We know from existing results that large gains are available. Lowest decile students from Māori and Pacific backgrounds who arrive at school seriously disadvantaged can attain at or above the national average. Youth transition issues in Otorohanga District were reduced from severe to negligible.

Figure 19 presents the value of these sources of benefit as a function of the improvement in OECD rankings. The figure shows what benefits would be gained from the sources included in Table 3 if New Zealand improved to reach the mean for OECD countries, if it reached the top 10 in the OECD and if it became the best performer.

FIGURE 19: ESTIMATED COST REDUCTIONS FROM IMPROVING RANKING IN OECD, $M

Source: Department of Corrections (2011), Ministry of Social Development (2011), OECD (2010c, 2010e, 2011), (Statistics New Zealand (2011b), Work and Income (2011).

The figure shows that the gains available are very large. Achieving the OECD average would save $270m per annum from these sources alone and making the OECD top 10 would save $480m per annum.

The question is how much investment should be made and how much investment would be required to achieve those results.

Figure 20 shows the number of students in each decile, split according to whether they are Māori and Pacific or not. Over 90% of decile one students are Māori or Pacific but there are only around 50,000 students in decile one. Improving outcomes for only 50,000 students would not be enough to get the gains profiled in Figure 19.

Targeting deciles one, two and three looks a more promising tactic. It would involve 163,000 of the most disadvantaged students in New Zealand, 70% being Māori and Pacific students. It would reach 50% of all Māori and Pacific students.
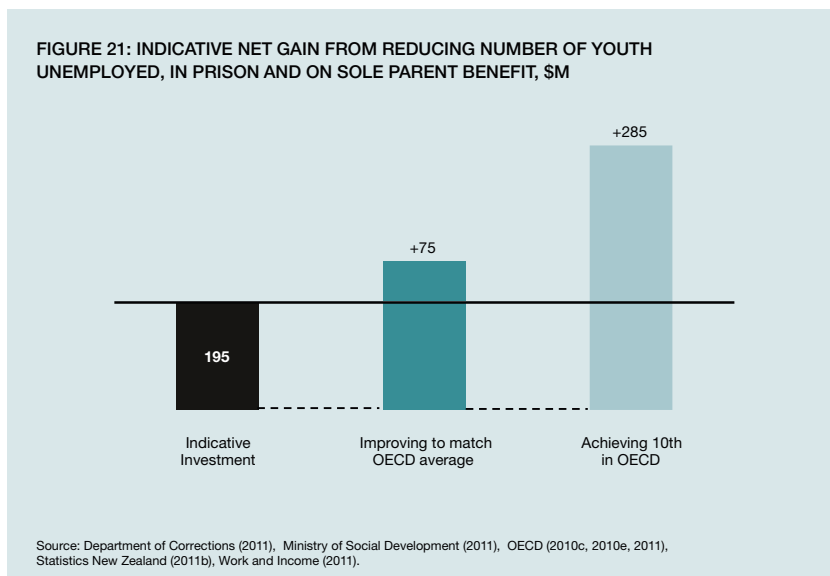
FIGURE 20: SCHOOL STUDENTS BY DECILE GROUP, 000s

Source: Education Counts (2011).
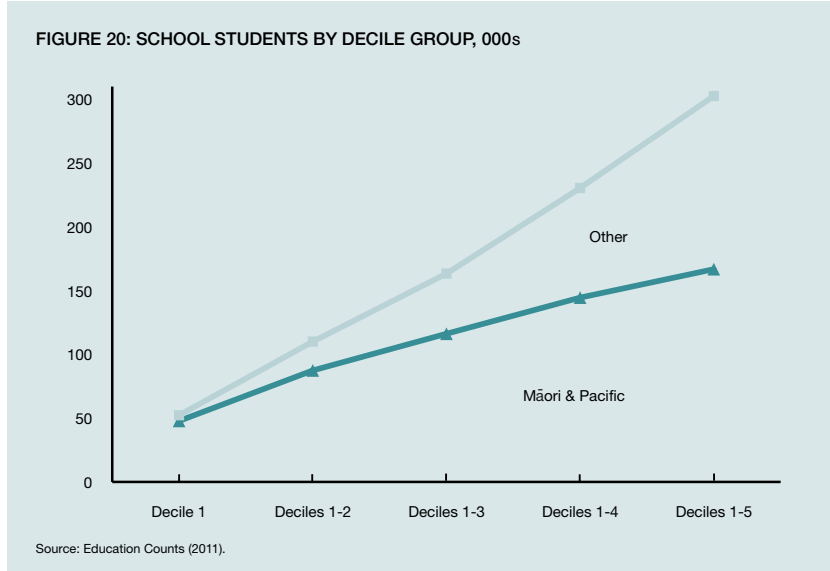
The cost for 163,000 students at $400 per student would be $65m per annum. Investing say $2,000 to improve the school-to-work transition for each of the 65,000 students who leave school annually would cost another $130m per annum, leading to a total annual incremental cost of around $200m. That represents around 4% of the budget for primary and secondary education (The Treasury, 2011).

Compare the investment required with the current government budget of $197m per annum for the Youth Guarantee scheme, which places 2,500 unemployed youth in education, training or work, growing to 7,500 in 2012.

The investment proposition is summarised in Figure 21.

FIGURE 21: INDICATIVE NET GAIN FROM REDUCING NUMBER OF YOUTH UNEMPLOYED, IN PRISON AND ON SOLE PARENT BENEFIT, $M

Source: Department of Corrections (2011), Ministry of Social Development (2011), OECD (2010c, 2010e, 2011), Statistics New Zealand (2011b), Work and Income (2011).

The most striking conclusion is that the best performers in the OECD are doing very well, confirming what we learned from the best practice examples in New Zealand. Targets should be high. If New Zealand could match the best performers on each metric, the costs for unemployment, incarceration and teenage births would reduce to less than one quarter of what they are today.

Achieving the OECD average would result in annual cash savings greater than the annual investment. Further, the benefits highlighted represent only a small fraction of the gains available from improving youth outcomes. The unquantified economic benefits from the sources not included would be very large too. But, most important, our disadvantaged youth would have much better life experiences.

CONCLUSION

New Zealand's youth are more disadvantaged than youth in other countries. Unemployment, crime, health and safety, and teenage birth outcomes are all worse than outcomes for the OECD on average. Only in secondary education does New Zealand perform relatively well.

Despite numerous interventions, little progress is being made and the members of disadvantaged ethnic groups are not experiencing a material reduction in their relative disadvantage.

The conclusions of our analysis are that reducing youth unemployment is the most important opportunity to reduce youth disadvantage and that ensuring school engagement and improving the school-to-work transition should be important priorities. That would match with the observations that these two important drivers of youth outcomes are not currently working well and that they are not an important focus of existing improvement investment.

Many researchers have pointed out that issues for youth arise before they get to school so there should be a focus on early interventions to ensure outcomes such as healthy and safe pregnancies, parenting skills development and early childhood education.

The research establishes that early intervention, if successful, would improve outcomes in later life. The challenge for early interventions seems to be how to identify accurately where they are needed most, how to reach those who will benefit and how to ensure delivery of the interventions with high success rates.

Intervening at school age to ensure engagement and reduce unemployment has three important advantages:
- The education system is controlled by the government so it is relatively easy to reach those in need and to influence outcomes;
- Examples of success demonstrate that large improvements are possible; and
- Successful transition into adulthood will reduce the number of disadvantaged children in the next generation.

We are not arguing against the merits of earlier intervention, only that the interventions we propose are worthy of substantial investment.

The challenge for the interventions proposed herein is to combine the best methods and learning from existing efforts and scale them quickly. In our explorations preparing this discussion paper, we met many people who are making a difference. Those people are not only succeeding in improving outcomes for children and youth but they are also making efforts to communicate what works so that others can contribute too.

What we did not see evidence of is a well organised centre hungry for valuable interventions so they can be scaled up. No one told us they had been visited by someone seeking interventions that work so they can scale them and make them work for everyone.

Part of the reason for that is that there is not a widespread understanding of the outcome improvement leverage available from ensuring successful school engagement and school-to-work transition. In the absence of top down diagnosis or rigorous evaluation each useful intervention looks very much like the others and there are many interventions claiming success and competing for available resources.

What is required is to:
- Establish the goal to materially reduce youth unemployment by improving engagement and transitions;
- Resource an effort to abstract the best available methods from international experience and what is already working here, defining the best practice interventions according to current understanding in a way that they can be rolled out;
- Set milestones and targets, and allocate sufficient resource to the interventions;
- Implement the engagement effort for a group of decile one to three schools within a district, and the school-to-work transition effort in an urban area where transition outcomes are poor;
- Govern the interventions effectively, monitoring implementation and evaluating outcomes to understand effectiveness, measure benefit/cost ratios and improve methods; and
- Once the first group of schools is launched, begin to scale to the whole of New Zealand, starting with the lowest decile schools and most disadvantaged cities and rolling out to progressively less disadvantaged groups until the benefit is insufficient to justify the cost.

Successful interventions in business are managed in the way proposed here and are implemented quickly because those governing the business are highly motivated to improve shareholder value, the important outcome for them, and to implement as quickly and effectively as possible.

The challenge is to find someone, a minister or official, whose purpose is to reduce youth disadvantage, with the ability to mobilise the required resources quickly and govern the interventions successfully.

From our vantage point it is difficult to identify such a person. Youth disadvantage driven by unemployment may be the responsibility of Youth Development, the Department of Labour, the Ministry of Social Development,

Work and Income, or the Ministry of Justice. The interventions are required in the education system and in the communities where the school-to-work transition occurs. For each of the interested agencies the issue seems a small one given all their other responsibilities and priorities. For New Zealand as a whole, the issue is immense.

Given these circumstances, cooperation among agencies will be required for success.

Our assessment is that if the interventions we propose are implemented effectively there will be a material reduction in youth disadvantage over a period of about ten years.

Reducing youth unemployment via the interventions proposed will not resolve all the youth social issues in New Zealand. In the course of this project we have identified several other agenda items that are worthy of further effort. These are:
• Establish work opportunities in provincial towns with high unemployment;
• Understand what it is about New Zealand's culture or society that leads to such a high incidence of risky youth behaviours;
• Identify interventions to reduce the damage caused by the influence of violence in the culture;
• Understand what is done differently by those countries that have reduced teenage births to much lower levels than those here and apply those lessons;
• Develop a way to support all motivated unemployed youth who have become detached from mainstream communities to develop the skills and attitudes that will equip them for work; and
• Consider the potential impact of reintroducing the youth minimum wage on the current high levels of youth unemployment.

Investigating these options has been beyond the scope or resources of this project but all seem to be valuable opportunities worth further investigation.

The most important point to take away is that successes in New Zealand and statistics in other OECD countries indicate there is huge room for improvement. It is not sufficient to continue to remedy youth issues; they can and should be prevented.

TWO PROPOSALS TO REDUCE YOUTH DISADVANTAGE

Accelerate roll-out of e-learning to low decile schools

Improve the school-to-work transition

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Dr Rick Boven, Director

Rick leads the New Zealand Institute. He was a strategic management consultant for 25 years and was the founding partner of the Boston Consulting Group in New Zealand. An Accredited Fellow of the Institute of Directors, Rick's recent directorships include ASB Bank, Sovereign Insurance, Wellington Drive Technologies and Simtics.

Rick has worked with leading companies in Australia, New Zealand and the USA in a wide range of industries including financial services, industrial distribution, energy, telecommunications, information technology, transport, manufacturing and agriculture. He has a Ph.D. in Environment Management from the University of Auckland, a Master of Business Administration from the Australian Graduate School of Management, and a Master of Arts (Psychology) from Victoria University of Wellington. Rick has university teaching experience in psychology, social work, research methodology, business strategy, and managing change. He has publications in social welfare, mathematical psychology, educational sociology, strategic management, business ethics and economic development.

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Catherine has a background in research, consultancy, and public policy in local and central government. She has 15 years experience as an elected local government member within the Auckland region, serving on and chairing major regional and city committees and currently is a Director of Watercare Services. Prior to joining the Institute she worked with AUT University's Institute of Public Policy and was engaged in consultancy work with the Auckland water industry. Catherine has worked in the Ministry of Transport and in the private sector in marketing, administration and research roles. She is a Justice of the Peace and served on the Auckland Observatory and Planetarium Trust Board for 11 years, five of those as Chair. Catherine has a Master of Business Administration from the University of Otago, a Diploma in Business (Marketing) from the University of Auckland and a B.A. in Political Science and Sociology from Victoria University of Wellington.

Lillian Grace, Research Associate

Lillian spent six years at Academy Award winning Massive Software where she was involved in every aspect of running the business. Through Massive, Lillian was exposed to the world of international business and the visual effects and hi-tech industries. Her experiences have deepened her passion for improving opportunities and standards of living for all New Zealanders, which led her to join the New Zealand Institute. Prior to joining Massive, Lillian was a secondary school physical education and health teacher at Kaipara College. Lillian has a Bachelor of Physical Education from the University of Otago and a Graduate Diploma of Teaching (Secondary) from the Wellington College of Education.

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