

#### Māori Youth Employment

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**Research Report** 

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### Introduction

This report introduces quantitative analyses of Māori youth employment and occupational status using data from the New Zealand General Social Survey (NZGSS) issued by Statistics New Zealand (SNZ) in 2008 and 2010. In relation to employment, the literature commonly defines youth as between the ages of 15 and 24 years (Bururu, Irwin, & Melville, 1998; Department of Labour, 2009a; Te Puni Kokiri [TPK], 2006). Previous literature on youth employment, and youth studies in general, often focuses on the problems of youth (Ministry of Youth Affairs, 2002; Sharples, 2010). In contrast, youth initiatives are making a shift from reacting, blaming and attempting to fix youth problems in isolation, towards a more proactive and holistic approach. The aim is to draw on a greater understanding of youth as active partners in their development, provide encouragement and plan ahead so that youth are able to grow into "innovative and energetic participants" (MYA, 2002, p.2) in society. Dr. Pita Sharples (2010) gives a positive example of forty youth he had been told about from the iwi of Whakatōhea who had assisted with projects in their community, such as upgrading marae and restoring old pa sites. By sharing this story in parliament, Sharples' (2010) stated his intention was to draw an "explicit link" (para 7) between youth, pride and mana.

Future change is dependent on the youth of today. In addition, their futures are often shaped between the ages of 15 to 24 during what has been described as "formative years" (DOL, 2009a, p.10). During this time, successful transition from secondary school to either tertiary study or meaningful employment will help to ensure positive futures. On the contrary, the greater time spent unable to connect to the labour market will have adverse long term impacts on their lives, careers and consequently the future of New Zealand and its economy (DOL, 2009a). Constant monitoring of the progress youth are making in terms of education and employment will assist with understanding trends and creating policy to help counter negative outcomes and create a greater number of opportunities for New Zealand youth (DOL, 2009a). Several initiatives have been proposed and implemented in recent years to ensure successful transition from education to employment (DOL, 2009a). For example, the Youth Guarantee Scheme provides 16 and 17 year olds with free secondary-school level education at a number of institutions, including polytechnics, wananga or private training establishments (DOL, 2009a). In addition, the Gateway programme, monitored by the Tertiary Education Commission (TEC), offers employment experience to senior secondary school students while they are still studying (TEC, 2012). The employment arrangement provides structure workplace learning at no cost to the students. Students still attending school, or who have left can also utilise Youth Transition Services (YTS). YTS operate throughout the country to assist youth aged between 15 to 17 into training and employment (Ministry of Social Development [MSD], n.d.; YTS, 2008). YTS can assist young people in acquiring birth certificates, creating curriculum vitae or obtaining a drivers license. In addition, YTS has the stated aim of connecting youth who want to pursue tertiary study with New Zealand's tertiary providers (YTS, 2008).

According to an OECD report published in 2008, the NZ youth labour market fares well against other OECD countries with a steady growth rate on average of 3% over the decade leading up to 2008. In 2006, NZ youth unemployment was 9.6% compared with the OECD average of 14.7%. However, it is important to note, that these comparatively high averages can mask high performing or underperforming youth in unemployment and may not give us an accurate picture of the state of

youth employment in this country. OECD (2008) identified that youth most at risk were those who were not participating in education or training as it would adversely affect future employability (OECD, 2008). In 2006, 11% of NZ youth were in this category, and Māori and Pacific youth were twice as likely to be in this group (OECD, 2008). As the Māori population is disproportionately younger than other ethnicities in this country, they will be a large contributor to our economic future. Numbers of Maori youth are expected to increase by 25% by 2026 (DOL, 2009a). Therefore, minimising the number of Maori youth who are disengaged from education and employment will be a crucial factor in ensuring positive growth in New Zealand. However, the aim of this report is not to dwell on the poor position of Māori youth in the labour market compared to that of non-Māori. Like others before me, I attempt not to confirm the "old story" (Easton, 1995, para 2), of poor education and employment outcomes for Māori. Rather the focus is on Māori youth who are in employment. In particular, this report aims to identify the occupations and conditions in which Maori youth currently work as an indication of where Māori might stand in the labour market in 10, 20 or 30 years time. I also hope to identify whether demographic or socio-economic variables may help to explain any differences in Maori and non-Maori youth employment with an emphasis on how Maori youth may direct their efforts now to better their economic position for the future. The variables considered in this study include personal and household income, family characteristics, social marital status, education, urban/rural location, as well as the impacts of age and ethnicity.

#### **Literature Review**

Youth employment is an important topic as it has real implications for the future of our economy. Despite much interest on the topic of youth and some literature dedicated to the topic of youth employment, their seemed to be a lack of research with a focus on the employment of Māori youth specifically. For this reason, this literature review for the most part explores key reports and data pertaining to the areas of youth employment and Māori employment separately, as well as offering some empirical and conceptual explanations of the disparities that exist between Māori and non-Māori labour market outcomes. The literature commonly defines working age youth as those between the ages of 15-24 years (Bururu et al., 1998; DOL, 2009a; TPK, 2006; OECD, 2008). Between these ages, young people are leaving secondary school, choosing to continue their education, enter employment and establish lifestyle patterns that will carry them into adulthood (TPK, 2006). However, it has been shown that there are also variations within this group that make it appropriate to treat them as two distinct categories, those aged between 15-19 years and those between 20-24 years (DOL, 2009a). The older youth aged between 20-24 years are often found to be closer to the total population in terms of employment statistics (DOL, 2009a). According to the 2006 Census, New Zealand youth numbered 571,176, which has increased from 505,065 youth in 2001 (DOL, 2009a). New Zealand youth, which currently makes up 14% of the total population, is expected to grow by 11% by 2026. The proportion of Maori youth is predicted to increase by 25% by that time, compared with a 59% increase for pacific youth and only marginal increases for European youth (DOL, 2009a).

The youth unemployment rate is most often higher than any other age category (Bururu et al., 1998; Robins, 1996, New Zealand Business Council for Sustainable Development [NBCSD], 2003). In 1994, 15-19 year old unemployment was at 20% with Māori of the same age group double that rate at 40%

(Robins, 1996). Between 1995 and 1998 youth between 15-24 years had a declining labour force participation rate and employment rate (Bururu et al., 1998). Bururu et al. (1998) suggest this change was possibly due to changes to income support and the school leaving age. Recent figures from the have shown that youth between 15-24 years are two to three times more likely to be unemployed than the general population (DOL, 2009a). However, labour force statistics show significant differences between the two youth age groups. According to data from the Household Labour Force Survey (HLFS), in 2008 the unemployment rate for 15 to 19 year olds was at 15.7% with 45.9% not in the labour force, compared with an unemployment rate of 7.4% for 20-24 years and 26.4% not in the labour force (DOL, 2009a). At September 2009, Māori youth between 15-24 years had the highest rate of unemployment compared to (within) the Māori population at 23.1% (DOL, 2009b).

Recent data shows that New Zealand youth are still overly concentrated in low skilled industries and occupations including service and sales workers, retail trade and accommodation, cafés and restaurants (DOL, 2009a). Youth are less likely to be employed in industries such as education or health and community services, which may reflect the entry-level requirements for these industries (DOL, 2009a). It is likely that the level of qualifications necessary for employment in these positions have not yet been acquired by youth (DOL, 2009a). These industries also have a high proportion of part-time employment, which would be attractive to youth who are still in study or pursuing other activities, such as preparing for or returning from overseas travel (DOL, 2009a). The high part-time employment experienced by youth is a key defining characteristic of this age group, but also makes the 15-19 year old group distinguishable from the 20 to 24 year age group. The younger age category often begins working to supplement study or other interests while continuing to live at home (DOL, 2009a). The older age group 20-24 years is less concentrated in particular industries and is more representative of the general workforce (DOL, 2009a).

It is commonly reported that Māori generally have poorer labour market outcomes and are more likely to be unemployed compared with non-Māori (DOL, n.d; DOL, 2009a; Easton, 1995). In 1991, Māori unemployment was 2.7 times the unemployment rate for non-Māori (Easton, 1995). However, According to DOL (2009b) Māori labour force participation has improved considerably since 2004. At September 2009, the Māori labour force participation rate was at 67.7%, a very minor difference compared to 68.6% for non-Māori, although participation rates were still lower for those under 25 years of age (DOL, 2009b). Māori employment grew by 8.7% from 2006 to 2007 compared to a total increase of 0.8% for non-Māori. Māori unemployment, was also at its lowest ever recorded rate in the Household Labour Force Survey at 7.6% (DOL, 2007). Figures released by TPK (2009), using the Labour Force Household Survey also show improvements in Māori unemployment as it dropped from 14.8% in September 1999 to 7.9% in September 2008.

Research has also questioned the definition of Māori (Chapple & Rea, 1998), as considerable disparities have been identified within Māoridom, particularly between those of mixed ethnicity and those who identify solely as Māori. For example, Chapple and Rea (1998) found that a greater percentage of "sole Māori" (p.70) do not have any formal qualifications than that of "mixed Māori" (p.70), with 52% and 34.9% respectively having not achieved a qualification. Sole Māori (52.7%) are also more likely to work in blue-collar occupations such as agriculture, fishery, trades, plant and

machinery operators and elementary workers, than mixed Māori (43.8%). These authors suggest caution in drawing a dichotomy between Māori and non-Māori. However, for the purposes of this report and due to the small sample size in focusing solely on youth aged between 15 and 24 years, Māori will be treated as one category, regardless of whether or not they also identify with another ethnicity.

For youth, the main employing industries are retail trade and accommodation, cafés and restaurant industries due to the flexibility in hours and low entry-level requirements (DOL, 2009a). The hospitality industry had 40% of workers under 25 years of age in 2006 (Whiteford & Nolan, 2007). Employees aged 15-19 make up the largest group in hospitality (Whiteford & Nolan, 2007). Māori as a whole made up 12% of industry employees after NZ Europeans (58%) and Asians (16%) (Whiteford & Nolan, 2007). At June 2008, the largest percentage of Māori were employed in manufacturing, and wholesale and retail (TPK, 2009). However, the greatest growth in employment over the five years from 2004 occurred in the construction industry with an overall increase of 58.3% since 2003, although 2007 to 2008 saw a decline of 700 construction jobs for Māori (DOL, 2007; TPK, 2009). In terms of occupation, Māori showed greater improvements in participation in the two middle range occupations, skilled and semi-skilled, which includes trades, service workers and machinery operators between 2002 and 2007 (DOL, 2007), which continued into 2009 (DOL, 2009b).

In 2008, New Zealand entered a recession following many years of strong economic and employment growth (DOL, 2009c). As a result, demand for labour has decreased. In the year to June 2009, several industry sectors experienced decline in employment. Manufacturing experienced the largest employment decline of sixteen industries with 10,700 less workers from June 2008 to 2009, which is no surprise due to the recession's impact on the economies of NZ's trading partners (DOL, 2009c). The losses were proportionately smaller due to manufacturing being the third largest employing industry in NZ. In addition, the lower demand for labour may increase the likelihood of opting to study thereby increasing demand in the education sector. The largest decline in employment for occupation was for managers and technicians, and trade workers (DOL, 2009c). Occupations at both ends of the scale have experienced high numbers of unemployment. For example, the largest increase in unemployment was for those seeking positions as plant and machine operators, followed by legislator and professional positions (DOL, 2009c). Sales and service workers seemed to have the smallest increase, although this occupation also had the highest unemployment rate. This could indicate workers who have lost jobs in this industry may be seeking employment in other occupations due to the low demand for this type of labour (DOL, 2009c).

In 2009, Māori made up 12% of the total workforce (DOL, 2009b). The manufacturing and transport and storage industries had the highest rates of Māori participation in the year to September 2009, while health and community services have had the highest Māori participation growth rate since 2004 (DOL, 2009b). These figures are similar for the year to September 2011, in which manufacturing (38,300 employees) and wholesale and retail (29,100 employees) were the leading industries of Māori employment (DOL, 2011). The Finance and Insurance industry had the least number of Māori employees at 3,500. Interestingly, the two occupational groups with the highest number of Māori employees in the year to 2011 were labourers (51,400) and professionals (41,100 workers) (DOL, 2011). Due to structural changes and lasting effects of the recession, little

improvement in employment is expected in the manufacturing industry (DOL, 2011). Slow growth is also expected in construction, although this may change depending on the effects of the Christchurch earthquake (DOL, 2011). The predominance of Māori in industries such as manufacturing, and retail and tourism, present significant challenges, particularly in relation to economic downturn (DOL, 2009b). These industries, and consequently the employees who work in them are expected to be disproportionately affected by economic crisis (DOL, 2009b).

The debate about employment often negates any discussion relating to the quality of employment (Easton, 1995). Economists have theorised that the labour force is segregated into at least two distinct markets (Easton, 1995). The primary labour market is characterised by job security, higher pay and better working conditions, while secondary labour market employees face job instability, lower wages and poorer working conditions (Dickens & Lang, 1988; Easton, 1995). There is thought to be very little mobility between these two markets (Hudson, 2007). However, a high number of youth often begin working in the secondary labour market as a form of supplementary income while they are studying toward secondary school or post-secondary school education (Easton, 1995). It is also a possibility that those who start in employment at a young age gain a number of skills and experiences that allows them to climb the career ladder, without simultaneously gaining post secondary-school qualifications (Easton, 1995). Dickens and Lang (1985) have previously identified gender and ethnicity as variables that allocate individuals to a particular labour market. This is supported by the fact that almost twice as many Māori work in semi-skilled to low-skilled occupations than in skilled and high-skilled occupations (DOL, 2007). On the other hand, non-Māori are more likely than Maori to be found in occupations with higher pay and job security, such as Legislators, administrators and managers; technicians and associate professionals; and professionals (DOL, 2009b).

A study by Maani (2002) used a 50% census sample from each year between 1986 and 1996 to determine ethnic disparities in the relationship between income and educational achievement. Results showed that Maori in urban and semi-urban areas fare better in terms of employment (Maani, 2002). Controlling for several characteristics, the author found that rural Māori were more disadvantaged than other groups. However, the number of rural Maori may be comparatively small as Māori have been considered "an urban people" (Kukutai, 2011, p.23) for decades now. Today, 85% of Māori live in areas defined as 'urban', which statistically includes populations from 1,000 through to over 30,000 (Kukutai, 2011). According to Kukutai (2011) a greater percentage of Māori (12.8%) than non-Māori (8.1%) live in 'minor urban' areas, statistically defined as those with populations between 1,000 and 9,999, while jobs and essential services are generally located in 'main urban' areas. Therefore, drawing a dichotomy simply between urban and rural areas may be misleading. Maani (2002) also found that Māori in general were less likely to be married, which for males, was associated with lower incomes. One of the significant findings in Maani's (2002) study was that once qualifications are controlled for, the occupational status gap between ethnicities is minute, particularly in 1996 (Maani, 2002). Therefore, it is a possibility that closing the 'education gap', defined as the differences in educational achievement between Maori and non-Maori students (Else, 1997), would consequently close the gap in income and employment between these two groups.

Despite constant reporting that Māori labour market outcomes are poorer than non-Māori, several studies have shown that much of the differences can be attributed to characteristics of the individual, such as age, education and parental status (Winkelmann & Winkelmann, 1997). If individual characteristics are able to explain the entire difference between Maori and non-Maori in terms of employment, the suggestion that Māori are disadvantaged in the labour market could prove erroneous (Winkelmann & Winkelmann, 1997). Winkelmann and Winkelmann (1997) estimated multinomal logit models to analyse the extent to which differences in employment between Māori and non-Māori can be explained by individual characteristics, including age, education, marital and parental status and urban/rural location. Their results showed that half of the differences in full-time employment between Māori and non-Māori males could be explained by individual characteristics. For women, most of the differences in full-time employment and a portion of the differences in part-time employment could be explained by individual characteristics. Very little difference found between Maori and non-Maori males in terms of part-time employment. Between the years of 1897 to 1996, qualification data for those aged over 15 years showed the gap between Maori women and non-Maori women to be narrowing faster than the gap between Maori and non-Māori men (Else, 1997).

Family size can determine the amount of resources available to care for each child. While Māori used to have more children than non-Māori this does not seem to be the case anymore (Else, 1997). However, Māori women usually have their children younger which may give them less time to pursue education and development that will help to establish them in the workforce. Māori children also are more likely than non-Māori to grow up in single parent families (Cunningham, Fitzgerald and Stevenson, 2005; Else, 1997). The summary of the same report also cited discrimination and poor attitudes toward schooling, particularly from males, if they have not been performing well as barriers to education. Winkelmann and Winkelmann (1997) questioned whether a "Māoriness" (p.47) factor would be a possible explanation for labour market disparities between Māori and non-Māori. This included Māori perceptions and attitudes toward education and employment as well as external perceptions of Māori through potential racial discrimination (Winkelmann & Winkelmann, 1997). However, there is little evidence to suggest that Māori youth do not value education (Else, 1997). Surveys conducted amongst high school students indicate that education is as desirable to Māori as it is to their non-Māori counterparts (Else, 1997).

'Māoriness' was also considered by Easton (1995) who related social characteristics as well as personal characteristics as possible causes of unemployment. Easton (1995) noted how friends and family who are employed and connected to the job market could act as rich sources of employment information. Therefore, if one's family and friends are unemployed, not in the labour force, or have poor quality jobs, finding positive job prospects may prove difficult. Similarly, if parents are unemployed, their ability to find jobs for their children is reduced (Easton, 1995). Cunningham et al. (2005) conducted telephone interviews on 100 Māori participants as a part of the project 'Pathways to Sustainable Employment' (PASE). Results showed that Māori were less likely to utilise formal career guidance services than non-Māori and relied instead on existing networks and relationships. Else's (1997) summary report identifies that while some research has been able to match Māori with non-Māori in terms of education and income, other research shows that even when no differences exist in terms of age, occupation and level of education, Māori are still more likely to be unemployed

than Pākehā (Else, 1997). This may be explained by poorer access for Māori to job information as described (Else, 1997; Easton, 1995). Other possible causes include racial discrimination, such as the reluctance to hire Māori over Pākehā, and the higher concentration of Māori in occupations and locations which are most affected by changes to the economy, consequently making Māori more vulnerable to unemployment (Else, 1997).

Māori participation and performance in education has been improving over the years. For example, in 1982 young Māori who left school, would usually do so after 3 years. In 1992, a large percentage (61%) left following four years of secondary school education. In addition, while many Māori youth still leave school without any secondary school qualifications (Robins, 1996), the number of these students has declined (DOL, 2009b). The year to 2009, possibly due to economic downturn, also saw an increase in 15-24 year old Māori participation in formal study. Youth educational performance in general has been improving across the board (DOL, 2009a). Over the 3 years to 2009, the number of students leaving school with NCEA Level 3, the highest attainable secondary school qualification, increased from 29.6% to 35.3% (DOL, 2009a). Similarly, the number of students leaving school with no qualifications decreased from 12.9% to 4.9%. However, Māori youth still make up a large share of those leaving secondary school without qualifications. The level of secondary-school qualifications achieved is indicative of those entering tertiary study and also suggests the skills the future workforce is likely to possess (DOL, 2009b).

Evidence has shown greater participation in tertiary education and greater completion rates in recent years (DOL, 2009a). Approximately one half of 18-19 year olds and one third of 20-24 year olds are studying toward tertiary qualifications (DOL, 2009a). Unfortunately, figures show a decrease in tertiary participation for Māori youth aged between 18-19 years compared to previous years. Māori youth also have lower completion rates in tertiary education and are less likely to pursue postgraduate study or take courses in sciences or engineering (DOL, 2009b). Overall, youth participation in industry training within the workplace has seen improvements. Youth between 15-19 years make up 11% of workers receiving industry training. Construction, engineering and motor engineering are the most common types of Modern Apprenticeships, of which there was an increase in youth participation of 15% between 2006 and 2007 (DOL, 2009a). The most popular apprenticeships for Māori are building and construction, and engineering (DOL, 2009b).

Research has shown that as one's level of qualifications increase, the probability of employment increases and the probability of unemployment decreases (Winkelmann & Winkelmann, 1997). One of the key findings in their study was the degree of difference in returns to education for Māori and non-Māori. In removing the restriction for independent variables to affect both groups identically, results showed that Māori benefited greater from further education. The downside of this is that Māori may be disproportionately penalised if they do not achieve at least a basic secondary school qualification. Data from the HLFS shows that the unemployment rate in 2009 for those with no qualifications was considerably higher than the total unemployment rate, which indicates that those who are better qualified have had better success at retaining employment during economic downturn (DOL, 2009c).

# Method

The analysis in this report utilizes survey data collected by Statistics New Zealand (SNZ) in the 2008 and 2010 New Zealand General Social Survey (NZGSS). The NZGSS, is a biennial survey that provides data on a number of social and economic outcomes for New Zealanders aged 15 years and over. One individual per household is randomly selected to answer a questionnaire. In this report, responses are divided into those who identified as Māori and all other ethnic groups are labelled as non-Māori. Responses from the two surveys were combined in order to gain a larger sample. This report looked mostly at youth data pertaining to those aged between 15 and 24 years of age. Where appropriate, data for those aged between 25 and 64 years have been used for comparison. Data pertaining to those over 64 years have been totally removed from this study.

Of those aged between 15 and 64 years there was a total of 13,360 participants (unweighted) over the two distributions of the survey in 2008 and 2010. Table 1 below shows the weighted number of participants in this study. Results from the NZGSS were weighted by Statistics NZ to represent the total number of households in New Zealand. These results were rescaled so that the number of cases remained at the achieved sample size. All percentages and counts used in this study have been calculated from weighted data unless otherwise specified. Percentages have been rounded to the nearest whole number, while means and standard deviations have been rounded to 2 decimal places.

Age	Non-Māori	Māori	Total
15 to 19 years	1270	331	1601
20 to 24 years	1284	264	1548
25 to 64 years	9999	1432	11431
Total	12553	2027	14580

 Table 1: Participants in NZGSS in 2008 and 2010 (weighted figures)

Table 1 shows the total number of participants using weighted data. Those classified as youth make up roughly 20% of the total sample. Due to the small number of cases relating to youth and youth in employment in particular (see Figure 1 below), youth have often been treated as one category, aged 15-24 in this report. Where possible, this age group has been further divided into those aged between 15-19 years and those between 20-24 years to determine the variations that exist within the youth population.





Of youth respondents in the NZGSS approximately 60% were employed at the time of taking the survey. Figure 1 shows that Non-Māori youth in this sample had a greater percentage of individuals who were employed (62%, n=1572) than Māori youth (52%, n=307), while Māori had greater percentages of youth who were unemployed (13%, n=76) or not currently engaged in the labour force (36%, n=213).

The following is a brief description of the variables considered in this report. It is necessary to note that some disparities exist in the questions asked between the 2008 and 2010 version of the NZGSS. Where these differences exist relating to variables observed in this report, they will be discussed below. The person's main occupation is the main dependent variable considered in this report. The NZGSS asks respondents to indicate their occupation according to specific categories, which differed between 2008 and 2010 (see table 2).

2008	2010	
Agriculture and Fishery workers	Managers	
Clerks	Professionals	
Elementary occupations (incl residual categories)	Technicians and trades workers	
Legislators, Administrators and Managers	Community and personal service workers	
Plant and machine operators and assemblers	Clerical and administrative workers	
Professionals	Sales workers	
Service and Sales workers	Machinery operators and drivers	
Technicians and Associate professionals	Labourers	
Trades workers	Residual categories	

For this report, main occupation was recoded into 5 categories:

- 1. Managers and professionals
- 2. Technicians and Trades
- 3. Clerks, Sales and Service workers
- 4. Agriculture and Fishery workers

#### 5. Machinery operators and Labourers

Employment type, considered the number of youth working full-time or part-time. Data pertaining to employment arrangement was collected in the NZGSS. Participants were asked to select from the following: "permanent", "fixed-term", "contractor", "seasonal", "temporary", "casual" or "other". With the assumption that a permanent employment arrangement offers the greatest amount of job stability, these arrangements were recoded for this report into simply "permanent" or "other".

Household income was used as an indicator of socioeconomic status. In the NZGSS, household income is calculated by combining the total gross annual incomes for all members in the household (SNZ, n.d.a). Respondents are asked to indicate their household income by selecting one of 16 income categories derived from the New Zealand Standard Classification of Income Bands 2009 (SNZ, n.d.a). In this report, establishing means for income was calculated by assigning the midpoint for the income band selected to each response.

Socio-demographic variables considered in this report include level of education, urban/rural location, social marital status and family characteristics. Education is measured in this report by assessing the highest level of qualification achieved. In the NZGSS, respondents select their highest level of qualification ranging from '0-no qualifications' to '10-Doctorate degree'. For the purposes of this report, the highest level of qualification achieved was recoded into 5 categories.

- 1. No qualifications
- 2. Certificate (Levels 1-4)
- 3. Diploma (Levels 5&6)
- 4. Bachelors degree and Level 7
- 5. Postgraduate & Doctorate (Levels 8-10)

Respondents identify urban and rural location by selecting one of four categories, main urban, secondary urban, minor urban and rural areas. For this report, this variable was recoded into main urban, other urban – consisting of both secondary and minor urban areas, and rural. Social marital status is examined in the NZGSS by indicating whether one is partnered or non-partnered. Family characteristics, in this report, are made up of a combination of two separate results from the NZGSS. Firstly, Family type by child dependency status asked respondents to indicate which of the following best describes their family type, "couple without children", "couple with at least one dependent child and possibly others", "couple with adult children and possibly others", "one parent with at least one dependent child and possibly others", "one parent with adult children only", or "not in family nucleus". As we are looking predominantly at data provided by those aged between 15-24 years, we would assume that where the respondent indicates 'adult children' they are likely to be referring to themselves. However, when referring to dependent children, which is defined by statistics nz (n.d.b) as someone who is under 18 years and not employed full-time, respondents could be referring to themselves if meeting the criteria, or they may have dependent children of their own. The NZGSS also asks respondents to indicate the number of people who raised them by selecting "one", "two", "more than 2 but less than 6", or "lots of people, or an institution. It was expected that the combined results from these two questions relating to family characteristics would give an indication of the family composition of the respondent.

An attempt to measure the effect of factors that have been attributed to Māori specific views also took place in this report. Results from three questions in the NZGSS, each using a 5-point likert scale response format were used to assess attitudes about knowledge, skills and abilities, education and discrimination. Participants were asked, "How do you feel about your knowledge, skills and abilities?" and were to select between "very satisfied", "satisfied" "neither satisfied nor dissatisfied", "dissatisfied" or "very dissatisfied". Secondly, participants were asked to indicate the extent to which the following answers matched their feelings about education: "education is very important", "education is neither important nor unimportant", "education is unimportant", "education is neither important nor unimportant", "education is which the following statement: "Local employers treat everyone fairly, regardless of what group they are from". Answers ranged from "strongly agree", "agree", "neither agree nor disagree", "disagree", "disagree".

Each of these variables described where assessed using cross-tabulations, analysis of variance (ANOVA) or multiple classification analysis (MCA). Cross-tabulations were used to identify whether any disparities exist between Māori and non-Māori youth in terms of occupation, personal income, employment type, family characteristics, urban/rural location and education. MCA's were used to examine the effect of predictor variables on several dependent variables. The dependent variables used in this analysis were occupation, personal income and highest qualification achieved. The statistical significance of each variable was determined by an ANOVA table, which for this report included only variables with values below 0.05.

# Results

This study aimed to identify occupations and conditions in which Māori youth work as an indicator of where Māori might stand in the labour market in the near future. In addition, ANOVA's and MCA's were conducted to identify whether socioeconomic or demographic variables may explain the proportion of variance relating to occupation, personal income and education as dependent variables.



Non-Maori Maori

Figure 2: Main occupation of Māori and non-Māori youth

Figure 2 shows the occupational status of Māori and non-Māori youth. There is a statistically significant association between ethnicity and occupation (p=0.00), although the strength of the relationship is relatively weak (eta=0.12). Both Māori and non-Māori youth seem to be relatively evenly spread across the occupational groups, with the exception of Managers and Professionals, which constitutes only 9% (n=25) of Māori youth. The highest concentration of Māori youth is in Labourer or Machinery operator occupations (29%, n=83).



Figure 3: Mean personal income for Māori and non-Māori in 2008 and 2010

In the NZGSS, respondents are asked to indicate their amount of personal income before tax in the 12 months prior to the survey by selecting an income range. The 16 income categories are derived from the New Zealand Standard Classification of Income Bands 2009 (SNZ, n.d.a). To calculate the mean for Māori and non-Māori youth the midpoint for each category was assigned to each response. It is important to note that income as referred to in this question does refer to wages, but also includes other sources of income, such as through student allowances, work and income benefits or interest on investments. Using this method the mean personal income for Māori youth at both the 15-19 and 20-24 age categories is slightly higher incomes than those of non-Māori. The mean personal income for Māori aged 15-19 years worked out as \$4,890 ( $\sigma$ =10.63), while the mean for non-Māori in the same age category was \$3,940 ( $\sigma$ =9.95). For the older youth category, the mean personal income for Māori was \$22,300 ( $\sigma$ =13.54) compared with \$21,200 ( $\sigma$ =16.49) for non-Māori. However, this trend reverses for the older population, with the mean personal income for non-Māori aged 15.40 ( $\sigma$ =41.34) than that of Māori (\$39,270,  $\sigma$ =31.64).



*Figure 4*: Percentage of full-time and part-time workers by age category

A significant association between working full-time or part-time and age was found (p=0.00, eta=0.27). Figure 4 shows that as age increases the percentage of individuals who report working part-time decreases. Approximately 63% of all workers aged between 15-19 years work part-time. Between the ages of 20-24 years this percentage drops to 25% of this age group in part-time employment. The percentage of full-time and part-time workers of both Māori and non-Māori youth in this sample was very similar, with approximately 60% of youth in part-time employment and the remainder in full-time employment. Youth employment arrangements were also considered. With the assumption that a permanent employment arrangement offers the greatest amount of job stability, employment arrangements were recoded into simply "permanent" or "other", which reflected arrangements such as fixed-term, contractors, and seasonal and casual workers. Using this method, minimal differences were found between Māori and non-Māori youth and no significant associations were found. Māori and non-Māori youth had 66% (n=193) and 63% (n=969) respectively, who reported having a permanent employment arrangement.



Figure 5. Number of people who raised Māori and non-Māori youth.

Figure 5 shows that Māori had a higher percentage than non-Māori of being raised either by one person, or by more than three people or an institution. Of non-Māori, 82% (n=2097) reported being raised by two people, compared with 60% of Māori youth (n=353). The chi square test showed a weak significant association between ethnicity and the number of people involved in raising children (p=0.00, eta=0.14). Data also showed that Māori youth are engaged in romantic relationships from a younger age as 9% of Māori aged between 15-19 years report having a partner, compared with 4% of non-Māori. For the older youth age bracket, Māori still have a higher percentage of partnered individuals (39%, n= 103) than non-Māori (25%, n=324). Considering youth as one age category, 22% of Māori youth reported having a partner, while 15% of non-Māori in the same age group reported having a partner. Again, a weak significant association (p=0.00, eta=0.08) was found between ethnicity and being in a relationship.



Figure 6: Mean household income for Māori and non-Māori in 2008 and 2010

Similar to the measure for personal income, household income is reported in income bands rather than an actual income. Household income is calculated by combining the total gross annual incomes for all members in the household (SNZ, n.d.a). Figure 6 shows that non-Māori have much higher household incomes than non-Māori across all three age categories. Household incomes of non-Māori steadily decrease as individuals get older, with a mean of \$99,128 for 15-19 year olds, \$98,515 for 20-24 year olds and \$96,123 for those aged 25 to 64 years. For Māori, household income increases from \$83,059 for the 15-19 age group to \$87,920 for those aged between 20-24, then decreases to \$83,852 for those aged over 25 years.



Figure 7: Urban/rural location of Māori and non-Māori youth.

Figure 7 shows that the majority of youth in this sample live in urban centres characterised as those with populations over 30,000 (SNZ, 2006). 'Other urban' consists of minor urban areas and secondary urban areas, which have combined populations of between 1,000 and 29,999, (SNZ, 2006). Of non-Māori youth 79% (n=2006) live in urban areas compared to 74% of Māori. Both Māori and non-Māori are also similar in that 9% (n=55) and 10% (n=245) respectively, of their youth population reside in rural areas. Rural areas are defined by SNZ (2006) as including rural centres and district territories and any area not specifically labelled as 'urban'. Analysing youth as two distinct age categories we find that of those aged between 15 and 19, a greater percentage of Māori live in urban (78%, n=255) and other urban areas (16%, n=53) than non-Māori (75% and 13% respectively), while non-Māori have a slightly greater percentage of their population living in rural areas (12%, n=154) compared with Māori 6%, n=19). For those aged between 20-24 years, a greater percentage of the non-Māori population reside in urban areas (14%, n=26) compared with non-Māori (7%, n=91).



Figure 8. Highest level of qualification achieved by Māori and non-Māori youth.

Figure 8 shows that Māori have a considerably higher percentage of youth who have not yet achieved any qualifications (37%) compared to non-Māori (18%). Both Māori and non-Māori youth in this sample have a large percentage of individuals who have as yet, achieved the maximum of up to a Level 4 qualification at 59% (n=351) and 64% (n=1641) respectively. Figure 8 shows that non-Māori have a greater percentage than Māori of achievement at all levels of qualifications.

The first MCA conducted in this report examined the effects of age, ethnicity, urban/rural location and highest qualification achieved with occupation as the dependent variable. Each of these variables was found to be statistically significant, each with a p value of 0.00. The strongest effects were from age (eta=0.29) and highest qualification (eta=0.32). These remained relatively similar when controlled for other factors (beta=0.21 and 0.22) respectively. If the occupational categories were considered in a hierarchy with '1' representing Professionals and Managers at the top end of the scale and '9' representing machinery operators and labourers, the data from this analysis shows that those who live in rural locations ( $\bar{x}$ =5.30), hold no qualifications ( $\bar{x}$ =5.67), are of Māori ethnicity ( $\bar{x}$ =5.15) and are between the ages of 15-19 ( $\bar{x}$ =5.40) are more likely to have jobs at the lower end of the scale. On the other hand, those with bachelors or level 7 degrees ( $\bar{x}$ =2.74) or postgraduate degrees ( $\bar{x}$ =3.56) are more likely to have jobs at the middle and upper end of the scale. The 'proportion of variance' explained by these variables is given by the square of the multiple correlation coefficient which was 0.15, which is a weak to moderate association.

The effects of family and participant background on occupation were assessed in a separate analysis. Household income, family characteristics, social marital status, and the number of people who raised participants were looked at in conjunction with age and ethnicity. For youth, a significant, yet relatively weak associations were found for each of the predictor variables on occupation, as well as the weak to moderate combined effect of these variables on occupation ( $r^2 = 0.17$ ). The strongest association with occupation amongst these variables was for age (eta=0.29, beta=0.20). It seems that the older youth category aged 20-24 ( $\bar{x}$ =4.00) are likely to hold better jobs than those aged 15-

19 years ( $\bar{x}$ =5.09). In terms of ethnicity, non-Māori in this sample hold slightly better jobs on average ( $\bar{x}$ =4.43) than Māori ( $\bar{x}$ =5.07) when adjusted for other factors.

To assess variables associated with Māori specific views in relation to occupation, the impact of attitudes and discrimination were assessed in an MCA. Ethnicity and age were variables considered along with the results from the following questions, "How do you feel about your knowledge, skills and abilities?" and "Which of the answers matches your feelings about education?" Participants were also asked the extent to which they agreed or disagreed with the following statement: "Local employers treat everyone fairly, regardless of what group they are from". Of these variables, ethnicity (eta=0.11), age (0.28) and attitudes about knowledge skills and abilities (eta=0.08) were the only variables found to be statistically significant (p=0.00). Although the association was weak, this MCA shows that even when controlled for other factors those who are very dissatisfied ( $\bar{x}$ =3.62) or satisfied ( $\bar{x}$ =4.41) with their current knowledge, skills and abilities are likely to have better jobs than those who are very satisfied ( $\bar{x}$ =5.09) than non-Māori ( $\bar{x}$ =4.42). In line with previous analysis in this report, those aged between 15-19 years were more likely to have jobs at the lower end of the spectrum even when controlled for other factors ( $\bar{x}$ =5.36). The total combined effect of these variables was again weak to moderate ( $r^2 = 0.12$ ).

The effects on personal income of living in an urban/rural location as well as the highest qualification achieved were considered in conjunction with age and ethnicity. All variables except for urban/rural location where found to be statistically significant. As might be expected, the strongest associations were found for age (beta=0.38) and occupation (beta=0.31). The relationship for highest level of qualification weakened considerably when adjusted for other factors (eta=0.22, beta=0.06). Data from this analysis shows that those aged 20-24 years ( $\bar{x}$ =24.37) earn twice as much as those aged between 15-19 years ( $\bar{x}$ =12.00) on average, when adjusted for other factors. Results showed that Māori youth had a slightly higher annual income (\$21,840) than non-Māori youth (\$19,280). Controlling for other factors, those aged between 15 and 24 years working as Tradespeople or Technicians had the highest annual income at \$25,860. Managers and Professionals followed this at \$24,950. Those working in agriculture and fishing, or as machinery operators or labourers had the lowest annual incomes at \$13,430 and \$15,620 respectively, when controlling for other factors. The total combined effect of these variables was  $r^2=0.32$ . In a separate analysis, similar associations were found for variables relating to household income and family characteristics in relation to personal income. In this analysis, age (eta=0.37), household income (eta=0.31), and being partnered (eta=0.27) seem to have the strongest affect on the level of personal income received. When controlled for other factors, 20-24 year olds ( $\overline{x}$ =18.69) earn just under 3 times as much as those aged between 15-19 years (x=6.87). Again, disparities between Māori and non-Māori youth were very small with Maori youth receiving a slightly higher annual income on average at \$13,150 and \$12,540 respectively. Interestingly, those who reported having partners (\$22,270) earn double the annual income of their non-partnered counterparts (\$10,790). Those with household incomes over \$70,000 also had the higher personal annual incomes than those with lower household incomes. There was a stronger overall impact of these household and family related variables on personal income  $(r^2=0.42).$ 

Finally, variables that were thought to contribute to the highest level of qualification achieved were assessed. Ethnicity, age, household income and questions about family characteristics were considered. In addition, the highest level of secondary school qualification was looked at to see if it had any impact on the highest qualification achieved overall. Each of these variables was found to have significant associations with level of qualification achieved. Weak associations were found for how many people raised you (eta=0.12), household income (eta=0.14) and being Māori (eta=0.16). Stronger associations were found for family type by child dependency status (eta=0.33), age (eta=0.40) and level of secondary school qualification achieved (eta=0.68). However, each of these associations weaken when adjusted for other factors, the overall combined effect of these variables is illustrated by r<sup>2</sup>=0.51. In considering level of qualifications, the higher the number the higher the level of education ranging from '0' which is no qualifications to '10' representing those with doctorate degrees. As might be expected, those aged 20-24 years ( $\bar{x}$ =2.09) have achieved higher qualifications on average than those aged 15-19 years ( $\overline{x}$ =1.29), when adjusted for other factors. In this youth sample, those who had not received a secondary school qualification, had the lowest levels of qualifications overall ( $\bar{x}$ =0.46). Interestingly those who reported household incomes of between \$5,000 and \$10,000 and \$10,000 and \$15,000 had some of the lowest gualifications at  $\overline{x}$ =1.22 and  $\overline{x}$ =1.10 respectively, while those who reported lower household incomes of \$1,00-\$5,000 or no household income had some of the highest qualifications on average ( $\overline{x}$ =2.44 and  $\overline{x}$ =2.28). Those raised by two people ( $\overline{x}$ =1.70) seem to be at a greater advantage in terms of education than those raised by just one person ( $\bar{x}$ =1.63), between 3 and 5 people ( $\bar{x}$ =1.64) or those raised by several people or an institution ( $\overline{x}$ =1.45).

#### Discussion

Results of the analysis show that the greatest percentages of Māori youth in this sample are working as labourers and machinery operators (29%, n=83) or in positions in Agriculture and Fishing (24%, n=69). On the contrary, fewer percentages of Māori youth were employed as Managers or in professional occupations (9%, n=25). The fact that youth often possess lower qualifications and less experience than older workers means they are often concentrated in less-skilled occupations and industries (DOL, 2009a). Interestingly, the data in this report showed a relatively even spread for both Māori and non-Māori across the five occupational groups. The largest disparities between Māori and non-Māori in terms of occupation, were that Māori had 10 percentage points more than non-Māori working as labourers or machinery operators, and 10 percentage points less individuals working in management or professional positions.

Personal income in this report includes wages or salary as well as benefits received from work and income, investment interests and other sources (SNZ, n.d.a). According to results produced from an MCA on personal income, occupation had a moderate (beta=0.31) impact on personal income. Results showed that the lowest average personal incomes were associated with those working in agriculture and fishing (\$13,430), or as machinery operators or labourers (\$15,620). On the contrary, the highest incomes were associated with the top 2 categories in our recoded list of occupations (though not in that order), with those working as tradespeople or technicians earning \$25,860 on average and managers or professionals earning \$24,950 on average. Despite a higher proportion of Māori youth represented in the lower paid occupational groups and underrepresentation in the

higher paid occupational groups, managers and professionals in particular, Māori youth seem to have slightly higher incomes on average than that of non-Māori. The mean income for Māori is \$950 higher per annum than non-Māori for those aged between 15 and 19 years, and just over \$1,000 higher for those aged between 20-24 years. We see a reversal of this trend for those aged 25 years and over, with non-Māori on average earning considerably higher than Māori at \$47,921 ( $\sigma$ =41.34) and \$39,275 ( $\sigma$ =31.64) respectively.

The predominance of Maori in occupations with poorer conditions and lower job security in comparison with non-Maori gives some evidence to dual labour market theory. For the youth in this sample at least, there is a greater percentage of Māori youth employed as labourers and plant machinery operators than non-Māori and a lower percentage employed as managers or professionals. However, in terms of income, Māori youth receive relatively equal annual personal incomes to that of non-Māori. Type of employment arrangement was coded into 'permanent' or 'other' under the assumption that permanent employment arrangements offer greater stability than other arrangements such as contract, seasonal or casual work. However, no significant association was found between ethnicity and employment arrangement. Nor was any significant association found between ethnicity and the likelihood of being engaged in full-time or part-time employment. As discussed in the literature, youth may be exempt from the typical assumptions of dual labour market theory, particularly that of little mobility between the markets. While full-time employment is generally considered the most reliable measure of success in the labour market (Winkelmann & Winkelmann, 1997), this cannot be an indicator of success for youth. If individuals are engaged in study between the ages of 15 and 24 it is likely that they will be involved in jobs with higher probability of part-time work, or employment arrangements other than permanent full-time work. Therefore, in the case of youth in particular, their current stations of employment cannot be said to be determinative of their future in general.

A distinguishing feature of youth work is often the degree to which a significant portion is engaged in part-time employment (DOL, 2009a). The predominance of youth in part-time work can also help to discern the 15-19 year age category from those aged between 20 and 24 (DOL, 2009a). The analysis conducted in this report reflects this notion with a higher percentage of the 15-19 year old group (63%) engaged in part-time work than those of the older youth category (25%). This is similar to previously reported figures that show 62% of youth engaged in part-time work (DOL, 2009a). This is possibly due to the fact that 15-19 year olds often work part-time to supplement study, while often still living in the parental home (DOL, 2009a). Analysis of the type of work conducted by Māori and non-Māori youth aged between 15 and 24 years shows little variation between the percentages of individuals working in either full-time or part-time employment. Approximately 60% of both Māori and non-Māori youth are engaged in part-time employment with the remaining 40% of those who are employed, working full-time.

The results of this report do show that family characteristics between Māori and non-Māori can differ significantly. A higher percentage of Māori individuals reported being raised either by an individual alone or by more than two people or an institution. On the contrary, non-Māori (82%, n=2097) had a greater percentage of individuals who reported being raised by two people than Māori youth (60%, n=353). Due to the nature of the question in the NZGSS, it is important to note

that being raised by one individual, may very well refer to being raised by a solo parent, however, this is not necessarily the case. Similarly, being raised by two individuals does not confirm that these were two married or de-facto parents. However, this does give us an indication of the type of households youth in this sample were raised within. In addition, MCA tests revealed statistically significant correlations for this variable with both occupation and education. Results suggest that those who were raised by two people seem to have an advantage, in terms of occupations and education, particularly over those raised by one person.

Analysis of social relationships of Māori and non-Māori youth showed that Māori are more likely to engage in relationships at a young age, with Māori retaining a higher percentage of partnered individuals in both the 15-19 and 20-24 year age brackets. This replicates findings by Cunningham et al. (2005) that found Maori were more likely to be partnered, and in receipt of a student loan or benefit. In this report, being partnered had a moderate significant affect on the amount of personal income received. Those who report having partners (\$22,270) earn double the annual income of those who do not have partners (\$10,790). This is comparable to findings that show that not being married was associated with lower incomes for Māori males (Maani, 2002). The fact that Māori youth have a higher number of partnered individuals may contribute to the slightly higher annual income for Māori youth over non-Māori. Should these partnered individuals be receiving government benefits or student loans, this may help to explain the higher income bands than those who are not partnered. In terms of being located in either urban or rural locations, Māori and non-Maori youth were very similar. Of non-Maori youth 79% (n=2006) live in urban areas compared to 74% of Māori. Māori and non-Māori youth also have similar percentages residing in rural areas, with 9% (n=55) and 10% (n=245) respectively. This supports Kukutai's (2011) statement regarding Maori people now predominantly being located in urban areas. In addition, MCA results reveal significant associations for urban/rural location and occupation, although no significance was found with income. These results show that those in main urban areas tend to have better jobs than those in rural areas, even when controlled for other characteristics. This supports Maani's (2002) study which found rural Māori to be at a greater disadvantage in terms of employment than urban Māori. This is likely due to be due to the fact that 'main urban areas' are often the main hubs for jobs and essential services (Kukutai, 2011), making location a barrier to particular forms of occupation.

One of the largest variations found in this report between Māori and non-Māori youth was that Māori had two times the percentage of non-Māori who had not yet achieved a qualification (37% and 18% respectively). Non-Māori youth were more likely than Māori to hold qualifications at all levels. Disparities between Māori and non-Māori in terms of achieving qualifications between levels 1 and 10 ranged from 3 to 6 percentage points. Therefore, the largest differences between Māori and non-Māori youth in terms of level of qualification were in terms of whether one had actually achieved a qualification or not. MCA results revealed that youth who had not received a secondary school qualification, had the lowest levels of qualifications overall ( $\bar{x}$ =0.46). This supports previous literature which suggests that not obtaining secondary school qualifications can serve as a significant barrier to further education (McKinley & Hoskins, 2011). McKinley and Hoskins (2011) identified that disparities between the numbers of Māori and non-Māori entering tertiary study reduce considerably when only accounting for those who achieved university entrance qualifications.

The recession New Zealand entered in 2008 caused a reduction in employment in a number of industries and occupations (DOL, 2009c). Comparing 2008 with 2009, Māori lost approximately 5,100 (2%) of jobs while non-Māori employment decreased by only 400 jobs (DOL, 2009). This is likely an indication of the greater job stability provided by the industries and occupations in which non-Māori work, while the lower-skilled industries and occupations in which Māori work are disproportiantely affected by economic crisis. It is predicted that the future will bring an emphasis and demand for "knowledge work" (DOL, 2009, p.46) which requires greater application of cognitive skills, such as reasoning and problem-solving and effective communication. In 2009, Māori workers made up only 9% of workers in the 'knowledge economy' (DOL, 2009b). However, the youthfulness of Māori has potential for future economy, particularly due to ageing workforce (Kukutai, 2011). Māori youth need to ensure they are gaining the qualifications necessary, in the areas that are conducive to securing careers in the knowledge economy (DOL, 2009b). Aligning training with employment industries and occupation that are forecast for future growth will put Māori in a better standing to make significant contributions to New Zealand's economic future (DOL, 2009b).

'Net replacement demand' is used to measure the percentage of workers that need to be replaced each year, possibly due to retirement or migration (DOL, 2009c). The highest net demand and positive forecast for employment includes physicists, chemists & related professionals, legislators and secondary teaching professionals. This means that greater supply is needed to keep employment stable in the future for these occupations (DOL, 2009c). Increasing demand in health and community services, property and business services and education could indicate future skill shortages in important positions within these industries. (DOL, 2009c). According to the Department of Labour (2011), the service sector is predicted to provide the majority of new jobs over the next 10 years. Contributing factors to growth in this industry include, an ageing population driving demand for healthcare workers, and continual growth of home-based age care services (DOL, 2009c; 2011). Strong growth is also predicted in private sector services, which includes wholesale and retail trade, business and financial services and communication services.

In terms of occupation, the strongest growth in employment has been forecasted for managers, professionals and technicians and associate professionals (DOL, 2011). Therefore, higher qualifications and more skilled workers will be required to fill these positions. Over the next 10 years, demand for those with degrees is expected to grow by 1.8% on average each year. The demand for higher-level vocational qualifications is expected to be even greater at an increase of 6% per year (DOL, 2011). This demand for higher-level vocational qualifications is forecast across a number of occupations. While there has been an increase in individuals completing these qualifications this has not translated into the workplace, due to migration to Australia and retirement of the ageing population who hold these qualifications (DOL, 2011).

In sum, the results of this report seem to reveal very little disparities in labour market outcomes between Māori and non-Māori when looking specifically at youth aged between 15-24 years. This supports previous research that found pathways to employment were generally similar for Māori and non-Māori (Cunningham et al., 2005). Although, it is important to note that the definition of young people used by Cunningham et al. (2005) referred to those aged 15-34 years. Possible explanations of these similarities may include the fact that this age is a transition period, and that

actions and decisions made during this time subsequently influence the likelihood of future success (DOL, 2009a). For example, individuals who spend their time studying or engaging in training during this age range, may not be in the labour force, or may be considered unemployed if looking for work. They may also be employed part-time in lower paid, part-time roles to give them extra assistance with their studies. As a result, these individuals will enter the workforce at a later stage with greater skills and greater likelihood of receiving employment in a meaningful role, with higher pay and increased job security. On the contrary, those who are not engaged in employment, training or study at this time, will also be reported as out of the labour force, possibly unemployed or engaged in part-time, lower paid roles. However, for these individuals, the future may not hold much more than their current situations provide.

Another possible cause for the minor differences between Māori and non-Māori youth in this sample may be an overall narrowing of the disparities between Maori and non-Maori. Data from the Household Labour Force Survey suggests that the labour force participation rate for Māori has been increasing faster than that of non-Māori, despite still being slightly lower (DOL, 2009b). Similarly, statistics suggest that the number of youth leaving school without qualifications has declined faster for Māori than that of non-Māori (DOL, 2009b). However, McKinley and Hoskins (2011) suggest that while Māori pass rates are increasing, so are the pass rates for other ethnicities. This is also acknowledged by DOL (2009b), who suggest that gaps still exist between Māori and non-Māori in educational achievement. Fewer Māori males than non-Māori are achieving at NCEA level 3, and the underperformance of Maori males in comparison with Maori females in education is evident at all levels of education (DOL, 2009b). These statistics alone challenge the likelihood that the overall gap in labour market outcomes that would be evident in later life stages between Maori and non-Maori is narrowing. Transition from school to employment is a much more difficult process for today's generations due to the diverse and complex pathways into employment (Leggatt-Cook, 2008). However, encouraging greater engagement and achievement in education, will broaden the opportunities for Maori youth to find paid employment, a key variable to ensuring social and economic well-being (Leggatt-Cook 2005, as cited in Legatt-Cook, 2008).

# LIMITATIONS

The NZGSS benefits from a large sample size and participant responses on a wide range of social indicators. However, the focus for this report on Māori youth, particularly those who were employed at the time of the surveys, reduced the participant size considerably. For this reason, analysis of youth in two distinct age groups was not always possible or beneficial. In addition, despite the NZGSS offering a range of social indicators, only a small portion of these related to employment outcomes, or were considered as variables that would be useful in this report. Using additional data sources to provide richer employment information may have provided more in-depth information about Māori youth labour market outcomes.

The focus of this research was on youth who were in employment as an indicator of where Māori would stand in the labour market in the near future. While this report did consider education insofar as its effect on the current occupational status of Māori youth, this research did not delve into the figures relating to those currently in education or training and how this would impact on the future

of Māori in the workforce. Secondary research revealed that following the recession, greater numbers of youth enrolled in further education, which is likely to result in a greater the number of skilled individuals entering the workforce in future (DOL, 2009a; 2009c). Therefore, additional analysis of these figures would provide a more accurate picture of the future of the Māori workforce.

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