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New Zealand Jobs, 1976 - 1996: A Demographic Accounting

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The University of Waikato
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TABLE OF CONTENTS

INTRODUCTION	4
1.1 Setting the Topic	4
1.2 Data Sources and Methodological Issues	5
DEMOGRAPHIC ACCOUNTING	6
2.1 Job Gains and Losses	6
2.2 By Industrial Sector	7
2.3 By Broad Age Group	9
JOB CHANGES RELATIVE TO DEMOGRAPHIC SUPPLY	11
3.1 Comparisons with Demographic Supply	11
3.2 By Age and Industrial Sector	13
DISCUSSION	14
4.1 Summary	14
4.2 Discussion	15
REFERENCES	16

LIST OF TABLES

Table 1: Job Gains and Losses in the Total Workforce, by Employment Status, All Groups Combined, 1976-1996 (Numbers)	6
Table 2: Job Gains and Losses in the Total Workforce, by Employment Status, by Gender, by Ethnic Group, 1986-1996 (Numbers)	7
Table 3: Job Gains and Losses in the Total Workforce, by Industrial Sector, All Groups Combined, 1976-1996 (Numbers)	8
Table 4: Job Gains and Losses in the Total Workforce, by Industrial Sector, by Gender, by Ethnic Group, 1986-1996 (Numbers)	8
Table 5: Job Gains and Losses in the Total Workforce, by Employment Status, by Broad Age Group, All Groups Combined, 1976-1996 (Numbers)	9
Table 6: Job Gains and Losses in the Total Workforce, by Broad Age Group, by Industrial Sector, by Ethnic Group, 1986-1996	10
Table 7: Job Gains and Losses From Year t to $t+n$ as a Percentage of the Working Age Population at Year t , by Employment Status, All Groups Combined, 1976-1996	11
Table 8: Job Gains and Losses From 1986 to 1996 as a Percentage of the Working Age Population in 1986 and Percent Change in the Working Age Population Over the Same Period, by Broad Age Group, by Ethnic Group, 1986-1996	12
Table 9: Percent Change of the Total Workforce and Percent Change of the Working Age Population from 1986 to 1996, by Industrial Sector, by Broad Age Group, by Ethnic Group European Maori Pacific Island Total	13

INTRODUCTION

1.1 Setting the Topic

Over the last decade or so New Zealand has been through an era of radical political, economic, social and demographic change. In part this has been driven by economic restructuring. But in part, this had been an acceleration of a long-term industrial transformation, which had been a part of New Zealand culture for some time (Thompson 1985). This has taken the form of a long-term shift of employment out of the secondary sector and into the tertiary sector industries. Moreover, in the post-war period there has been a gradual further decline in the proportion of jobs in the primary sectors despite continuous economic improvements of agricultural activities. This is demonstrated proportionately more in terms of its contribution to exports and to the distribution of Gross Domestic Production across sectors, than in high percentages of the labour force in the primary sector. In this and other ways, New Zealand has been subject to the structural changes experienced by other developed countries. The major difference has been the speed of the policy-driven restructuring over the last decade in New Zealand.

Internationally economic development has generally been accompanied by changes in the structure of employment, notably a shift from traditional to modern sector activities (Chenery and Syrquin 1975). The processes of structural change are the avenues by which resources are transferred between sectors in response to changing patterns of consumer demand and to differential rates of productivity growth (George and Joll, 1981). This pattern of industrial transformation is a trend that has occurred throughout all developed nations. First, there was the movement from the primary sector to the secondary sector during the industrial revolution. Secondly, during this continued shift out of the primary sector, there was also a shift share between manufacturing and the service sector (Pool and Bedford, 1996).

This movement between the secondary sector industries and the service sector has intensified over recent times. Downsizing and job losses within the secondary sector occurred on a large scale as New Zealand, in the mid 1980s, adopted one of "the most comprehensive free market reform programmes ever undertaken by an OECD country" (Shirley 1993; cited in Jackson, 1994: 23). During the period from 1984 to 1991, almost all sectors of the New Zealand economy underwent a programme of rapid economic liberalisation. As a result, there were large reductions in the numbers employed in both the public and private sectors. More importantly, the effects of the restructuring were distributed unevenly. Job losses and rising unemployment were disproportionately concentrated among various groups of the New Zealand labour market, with heavy burdens falling upon non-Europeans, the less educated, and the young (Morrison, 1991; Shirley, Easton, Briar and Chatterjee, 1990).

Changes in the tertiary sector were very complex, reflecting a mix of skill-level sub-sectoral and status effects. Shifts into the "quaternary" sectors (the skilled professional financial sector jobs) had very different effects than changes in the less skilled service jobs (Shirley 1995).

This study attempts to extend our understanding of the impacts of restructuring that was induced by policy shifts. To do so it introduces an important factor into the equation that is often ignored when analysing labour market issues, that of demographic supply. The emphasis in most labour market analyses is often on demand driven factors, with supply seen as an analytical factor narrowly defined in terms of changes in the size of the labour force (employed plus unemployed), rather than of all persons at workforce ages. While this rationale is acceptable for the conventional approach - an interest purely labour as a factor of production - it could be argued that the alternative is of critical significance not only for social policy, but also for more narrowly based economic analyses.

In the case of social policy, the problem is that disjunction between labour supply, as broadly defined, and demand is likely to have a major impact on the need for social welfare and services. In the case of economic analyses, the population at working ages can no longer be segmented analytically into those persons inside and outside the labour force. The reason is simple: that model, which still dominates sources such as the Household Labour Force Survey, ignores the fluidity between the labour force and the non-labour force engendered by the breakdown of gender segmentation (Davies and Jackson, 1993), and the rapid increase in contractual, casual and part-time workforces and the concomitant decreases in termed, "permanent" positions (Honey 1998).

The relationship between relative cohort size and labour market opportunities is a pivotal issue in determining the degree to which we can expect newly entering cohorts to experience difficulties in being absorbed into the labour market. Demographic supply is based on temporal changes in fertility which produce, at a macro level, differently sized cohorts which create population waves. This results in the temporal differences in the potential supply of labour as each cohort arrives at, or leaves the labour market. The arrival of particularly large cohorts can exert considerable pressure on the opportunity for employment.

It so happens, that the largest birth cohorts in New Zealand's history, born around 1970 (Pool, 1991), arrived at the workforce ages in the 1980s. Coinciding with that, the New Zealand economy underwent a programme of rapid economic and social restructuring. There appears to have been little or no appreciation, or concern, about the human capital effects of restructuring, so that, as a result of the demographic changes, the overall negative effects of the reforms were exacerbated. This is especially true in terms of Maori and Pacific Islanders who were over represented in the secondary sector industries that were affected the most by the restructuring.

1.2 Data Sources and Methodological Issues

The data used in this analysis were extracted from a custom designed computer database purchased by the Population Studies Centre of Waikato from Statistics New Zealand. The database covers information from the five yearly New Zealand Census of Population and Dwellings from 1976 to 1996 enabling descriptive analysis of labour force status by industry and occupation to be performed by age, gender and ethnicity.

This paper turns to some basic accounting methods to analyse increases and decreases in job numbers by industrial sector between 1976 and 1996. Analysis by gender, ethnicity and broad age groups will provide a more detailed picture of the major movements. Secondly, in order to assess whether there are gaps between employment and supply, these increases and decreases will be compared with data which indicate levels of "demographic supply". These data give, as it were, an "expected" figure for change in the numbers in each category. and this can be compared with the "observed" figures. Demographic supply is defined here as the percentage growth between the periods analysed in the population at working ages (15-64 years).

This analysis will be termed 'job gains and losses". It must be stressed, however, this chapter does not directly measure job gains and losses. This is particularly true for labour force entrants whose rates are affected by changes in the propensity to participate in the paid workforce, and this in turn, by changes in the proportion at those ages who are full-time students. That said, today only the most financially advantaged full-time students can finance their studies without also working at least part-time.

This paper also looks at the proportionate shifts between censuses in the number of workers by age, gender and ethnicity in a particular industry or broad sector. This analysis is strengthened by comparing the observed "gains and losses" which might have been expected through natural growth and attrition. What these data imply, therefore, is whether or not the labour market is dysfunctional in the way it can respond to a combination of gains and losses because of under- and over-supply of workers, plus the absorptive capacity of a given segment of the labour market.

2 DEMOGRAPHIC ACCOUNTING

2.1 Job Gains and Losses

The periods analysed in this report allow us to undertake a general review of the situation between 1976 and 1986 - that is, prior to the restructuring - and also between 1986 and 1996, the period since the initiation of the reforms. Table One illustrates that, in terms of numerical job gains and losses, there are distinct trends in the two periods.

Table 1: Job Gains and Losses in the Total Workforce, by Employment Status, All Groups Combined, 1976-1996 (Numbers)

Job Status	1976-1986	1986-1996	1976-1996
Full-time	137379	-87480	49899
Part-time	71769	114777	186546
Total	209148	27297	236445

Throughout the entire 20 year period, the total number of jobs gained exceeded 36,000, but with the earlier decade from 1976 to 1986 producing the majority of those gains. There was actually a net loss of employment of full-time jobs between 1986 to 1996 of 87,480 jobs in total. In contrast, during this same second decennium, there were substantial gains in part-time work that counteracted to a degree, the losses that occurred in full-time employment.

In terms of gender differentials, the distribution of the job losses between 1986 and 1996 disadvantaged males, rather than females as shown in Table Two. In fact, females actually experienced a gain in full-time jobs over the ten year period, which was the inverse trend to the substantial losses shown by their male counterparts. In addition to this, females' uptake of part-time work over the ten years was almost twice that of males.

Further disaggregation by ethnicity shows how the majority of the full-time losses occurred for European males who experienced a very significant loss of 103875 jobs. Maori and Pacific Island males also showed losses of full-time work after 1986, albeit on a lesser absolute scale. Although the numbers for Europeans seem overwhelming, and the losses incurred are significantly larger than for the Maori and Pacific Island populations, it must be remembered that the size of the European population is much larger and thus that relative change will be clearer than the initial analysis suggests, a point that will be discussed further in this paper. In terms of gender differentials, the disparity of females showing greater gains in both full-time and part-time employment than males over the ten year period, is clearly evident in all three ethnic groups analysed.

Table 2: Job Gains and Losses in the Total Workforce, by Employment Status, by Gender, by Ethnic Group, 1986-1996 (Numbers)

		Female	Male	Total
European	Full-time	-1383	-103875	-105258
	Part-time	52068	32271	84339
	Total	50685	-71604	-20919
Maori	Full-time	4605	-3357	1248
	Part-time	11793	4971	16764
	Total	16398	1614	18012
Pacific Island	Full-time	2037	-600	1437
	Part-time	2955	1812	4767
	Total	4992	1212	6204
All Groups	Full-time	12756	-100236	-87480
	Part-time	71799	42978	114777
	Total	84555	-57258	27297

2.2 By Industrial Sector

A breakdown of the job changes just described by industrial sectors is vital in determining which areas of employment have experienced the most change. It is clear from Table Three that the majority of the losses described earlier occurred in the secondary sector. This was mostly attributed to the dramatic losses of close to 96,000 workers in the secondary sector alone, occurring between 1986 and 1996.

Table 3: Job Gains and Losses in the Total Workforce, by Industrial Sector, All Groups Combined, 1976-1996 (Numbers)

Industrial Sector	1976-1986	1986-1996	1976-1996
Primary	29565	-9834	19731
Secondary	3591	-95991	-92400
Tertiary	175992	133122	309114
Total	209148	27297	236445

The only other job losses experienced were also between 1986 and 1996, which occurred in the primary sector. The large gains between 1976 and 1986 in the primary sector had, however, enabled an overall positive gain of jobs for the entire 20 year period. The same cannot be said for the secondary sector where the losses experienced between 1986 and 1996 overwhelmed the minimal gains experienced in the period prior to restructuring. The tertiary sector was the only industrial sector that showed positive gains in both periods analysed with a substantial increase of jobs between 1976 and 1996 of over 300,000.

Table Four provides both gender and ethnic differentials of these industrial changes between 1986 and 1996. All three ethnic groups analysed show considerable job losses in the secondary sector for both genders, although males experienced considerably greater losses than females. European males and European females show substantially larger losses than that of the Maori and Pacific Island populations.

All three ethnic groups showed tertiary sector job gains. The fact that female gains in the tertiary sector were greater than those experienced by males was an attribute shared by all three ethnic groups. The gender disparity of the European population was considerably more evident than the Maori and Pacific Island populations, with European females increasing 28 times more tertiary sector employment than European males over the ten year period. In contrast, Maori females and Pacific Island females showed greater gains than their male counterparts of a mere 1.8 times and 1.3 times respectively.

Table 4: Job Gains and Losses in the Total Workforce, by Industrial Sector, by Gender, by Ethnic Group, 1986-1996 (Numbers)

		Female	Male	Total
European	Primary	1719	-13422	-11703
	Secondary	-17316	-60555	-77871
	Tertiary	66282	2373	68655
	Sub-Total	50685	-71604	-20919
Maori	Primary	*900	144	1044
	Secondary	-4452	-9402	-13584
	Tertiary	19950	10872	30822
	Sub-Total	16398	1614	18012
Pacific Island	Primary	270	435	705
	Secondary	-1998	-4524	-6522
	Tertiary	6720	5301	12021
	Sub-Total	4992	1212	6204
All Groups	Primary	3042	-12876	-9834
	Secondary	-22311	-73680	-95991
	Tertiary	103824	29298	133122
	Sub-Total	84555	-57258	27297

2.3 By Broad Age Group

A major focus of this report is to investigate the experiences of different age groups, labour force entrants especially. As such, the analysis disaggregates further by broad age groups, 15-24 years (labour force entrants), 25-44 years and 45-64 years. Table Five summarises the job gains and losses by both employment status and broad age group between 1976 and 1996

The labour force entrants (15-24 years) showed the most concerning trends with significant full-time job losses between 1986 and 1996 of 134,556. The subsequent large gains in part-time work for that age group, however, reduced the number of total job losses to 75,747.

The largest gains over the 20 year period were shown by those aged 25-44 years with significant gains in both full-time and part-time work. The majority of the gains occurred between 1976 and 1986, whereas the increase in full-time work between 1986 and 1996 was slight. The age group that showed the largest gains after the 1986 census were those aged 45-64 with substantial gains in full-time work in comparison to those of younger ages.

Table 5: Job Gains and Losses in the Total Workforce, by Employment Status, by Broad Age Group, All Groups Combined, 1976-1996 (Numbers)

Broad Age Group	1976-1986	1986-1996	1976-1996
Full-time			
15-24	3753	-134556	-130803
25-44	133713	5010	138723
45-64	-87	42066	41979
Part-time			
15-24	14232	58809	73041
25-44	40296	35691	75987
45-64	17241	31131	48372
Total			
15-24	17986	-75747	-57762
25-44	174009	40701	214710
45-64	17154	73197	90351

In order to show the experiences of each broad age group in terms of changes in each industrial sector, job gains and losses between 1986 and 1996 were analysed as such in Table Six. These data also imply shift-shares between sectors. What is immediately obvious for all groups combined is the large loss experienced in all three sectors for labour force entrants. The secondary sector dominated those losses. The significant decrease that occurred in the tertiary sector for the labour force entrants is a trend that is the reverse of the gains experienced in that sector by those aged 25 to 64 years

In terms of ethnic differences, all three ethnic groups analysed show substantial losses for each broad age group in the secondary sector. A common factor is that the majority of those losses were experienced by the labour force entrants. For the tertiary sector, each age group of each ethnic group experienced positive gains with the exception of Europeans aged 15-24 who showed significant losses of 26874 jobs.

It is obvious that certain age groups, ethnic groups and genders experienced disproportionate job losses over the periods analysed in this report. It must be noted X that basic accounting can only provide a descriptive analysis of what has been observed. The fact that these groups showed such significant job losses could be largely due to "over-supply". That is, there was an over-supply in terms of the inadequate absorptive capacity of the job market of large groups of people. In the next section we take these demographic factors into consideration and make a comparative analysis of both job change and demographic change.

Table 6: Job Gains and Losses in the Total Workforce, by Broad Age Group, by Industrial Sector, by Ethnic Group, 1986-1996

		Female	Male	Total
European	Primary	-6099	-11436	5832
	Secondary	-40704	-28860	-11910
	Tertiary	-26874	34875	64194
	Sub-Total	-73677	-5421	58116
Maori	Primary	+708	1191	561
	Secondary	-9189	-3984	-1563
	Tertiary	3939	20091	7674
	Sub-Total	-5958	17298	6672
Pacific Island	Primary	111	426	168
	Secondary	-2637	-2325	-138
	Tertiary	4251	13098	3831
	Sub-Total	1725	11199	3861
All Groups	Primary	-6831	-9417	6750
	Secondary	-53238	-32910	-13251
	Tertiary	-15678	83028	76768
	Sub-Total	-75747	40701	73197

3 JOB CHANGE RELATIVE TO DEMOGRAPHIC SUPPLY

3.1 Comparisons with Demographic Supply

By comparing job gains and losses to changes in demographic supply, that is, with the growth in the working age population, it is possible to analyse how successful the labour market was in absorbing workers. This is because it takes into account changes in supply, which can vary as different sized birth cohorts enter the New Zealand labour market.

Table Seven summarises the change in jobs as a percentage of the working age population at the start of each period analysed. Overall, between 1976 and 1996, total job gains increased by 12.44 per cent. In comparison, the demographic supply over that same period increased at a greater rate of 18.91 per cent. The period of most interest is between 1986 and 1996 where total employment increased by a mere 1.28 per cent as opposed to an increase of 6.32 per cent in demographic supply. In addition, full-time work actually decreased by 4.11 per cent over the same period.

Table 7: Job gains and losses from year t to $t+n$ as a percentage of the working age population at year t , by employment status, all groups combined, 1976-1996

Job Status	1976-1986	1986-1996	1976-1996
Full-time	7.23	-4.11	2.62
Part-time	3.78	5.40	9.81
Total	11.00	1.28	12.44
Demographic Supply	11.85	6.32	18.91

Job Change = Growth in Jobs as a Percentage of the Working Age Population $\frac{E^t - E^{t-10}}{p^{t-10}} * 100$

Demographic Supply = Growth in the population aged 15-64 years $\frac{p^t - p^{t-10}}{p^{t-10}} * 100$

Table 8: Job gains and losses from 1986 to 1996 as a percentage of the working age population in 1986 and percent change in the working age population over the same period, by broad age group, by ethnic group, 1986-1996

		Job Change (a)	Demographic Change (b)	Difference (a) - (b)
European	15-24	-16.50	-23.52	7.02
	25-44	-0.70	1.55	-2.25
	45-64	10.94	10.11	0.83
	Total	-1.19	-2.24	3.43
Maori	15-24	-6.35	5.63	-11.98
	25-44	17.03	47.26	-30.23
	45-64	2.81	47.54	-44.73
	Total	7.58	30.89	-23.31
Pacific Island	15-24	-10.70	30.48	-41.18
	25-44	7.62	48.42	-40.80
	45-64	12.07	84.03	-71.96
	Total	8.60	47.91	-39.31
All groups	15-24	-13.75	-12.67	-1.08
	25-44	3.41	12.07	-8.66
	45-64	11.81	15.73	-3.92
	Total	1.28	6.32	-5.04

Job Change = Growth in Jobs as a Percentage of the Working Age Population $\frac{E^t - E^{t-10}}{p^{t-10}} * 100$

Demographic Supply = Growth in the population aged 15-64 years $\frac{p^t - p^{t-10}}{p^{t-10}} * 100$

Table Eight computes the difference between the actual growth in jobs (Job Change) by broad age group between 1986 and 1996 with the expected growth, which in this case is determined by the growth in demographic supply for each broad age group. It is important to capture this in terms of ethnic differences as some very interesting patterns emerge.

Table Eight clearly shows that the growth in jobs for all the Maori and Pacific Island broad age groups is considerably less than the growth in their respective populations. This excess of labour supply over job gains seems to be more prominent in those aged 25 years and over for these populations. The greatest disparity was the 84 per cent increase in demographic supply for Pacific Islanders aged 45-64 years which was inadequately matched by a mere 12 per cent increase in the number of jobs. In comparison the European population, despite the large number of job losses shown in the first section of this paper, showed more favourable trends with a greater growth in the job market than in demographic supply for those aged 15-24 years and 45-64 years. Although those aged 25-44 years showed less growth in jobs than growth in population, the overall difference was trivial in comparison to the large deficits shown by the Maori and Pacific Island populations.

3.2 By Age and Industrial Sector

Table Nine takes the analysis a step further by controlling for age, ethnic group and industrial sector. It compares percentage changes in total employment by industrial sector to percentage changes in demographic supply. It was clearly evident from the first section that the secondary sector dominated most of the losses incurred by each ethnic group. The present form of analysis supports this, showing considerable percent declines in the number of jobs in the secondary sector that were well below the strong growth in demographic supply. The latter, of course, could be a potential source of labour for any sector.

This is a trend that is shared by all the ethnic groups that were analysed. In terms of age however, there were some differences. Labour force entrants (15-24 years) clearly show the most concerning trends. Europeans experienced a decline in secondary sector jobs of close to 50 per cent, compared to a much lesser decline in their respective population, which decreased by 23 per cent. In comparison, as both the Maori and Pacific Island populations experienced strong increases in the size of their labour force entrant populations, the subsequent large declines in the secondary sector employment during the same period affected them very severely. The large declines of employment in the secondary sector of 47 per cent for Maori and 41 per cent for Pacific Islanders were significantly below the overall gains in the size of the labour force entrants age group, which were six per cent and 30 per cent respectively.

Table 9: Percent Change of the Total Workforce and Percent Change of the Working Age Population from 1986 to 1996, by Industrial Sector, by Broad Age Group, by Ethnic Group European Maori Pacific Island Total

		European	Maori	Pacific Island	Total
15-24	Primary	-22.58	-12.53	34.91	-20.33
	Secondary	-49.61	-47.04	-40.53	-48.65
	Tertiary	-14.72	16.87	65.57	-7.89
	Sub-Total	-25.26	-12.28	12.96	-21.49
	Demo Supply	-23.52	5.63	30.48	-12.67
25-44	Primary	-15.46	15.03	83.04	-11.54
	Secondary	-17.47	-14.23	-15.65	-15.90
	Tertiary	9.19	61.99	133.52	17.83
	Sub-Total	-0.88	25.31	44.48	4.60
	Demo Supply	1.55	47.26	48.42	12.07
45-64	Primary	14.21	18.26	130.23	14.70
	Secondary	-12.96	-16.33	-3.47	-12.60
	Tertiary	31.52	62.56	138.35	35.00
	Sub-Total	17.26	26.78	56.13	18.98
	Demo Supply	10.11	47.54	84.03	15.73
Total	Primary	-8.24	6.27	73.44	-6.07
	Secondary	-24.02	-25.59	-20.12	-23.46
	Tertiary	9.43	46.61	111.11	15.83
	Sub-Total	-1.68	12.79	37.00	1.86
	Demo Supply	-2.24	30.89	47.91	6.32

Job Change = Growth in Jobs as a Percentage of the Working Age Population $\frac{E^t - E^{t-10}}{P^{t-10}} * 100$

Demographic Supply = Growth in the population aged 15-64 years $\frac{P^t - P^{t-10}}{P^{t-10}} * 100$

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secondary sector of 47 per cent for Maori and 41 per cent for Pacific Islanders were significantly below the overall gains in the size of the labour force entrants age group, which were six per cent and 30 per cent respectively.

The older age groups also experienced percentage declines in secondary sector employment, albeit considerably less than those experienced by the labour force entrants. In contrast, however, the subsequent gains in the size of these populations over the period in question, are much higher than that of the 15-24 year olds. This was especially true for the Maori and Pacific Island populations who experienced substantial percentage increases in the size of their older working age populations (25-64 years).

In terms of the remaining industrial sectors, the tertiary sector showed considerable percentage increases in the number of jobs. In contrast to the experiences of the secondary sector, the increases in tertiary sector employment was well above the gains shown in demographic supply. This was an attribute that was shared by all broad age groups and ethnic groups analysed.

DISCUSSION

4.1 Summary

Through a long term industrial transformation going back decades, but accelerated by radical economic restructuring in the 1980s, New Zealand has experienced a movement of employment away from secondary sector employment and towards the tertiary sector. Considerable job losses have occurred in secondary sector industries both before and after the 1986 census. In turn, substantial gains have transpired within the tertiary sector industries. This report has shown that the period following the reforms initiated in the mid 1980s has shown an intensified movement of these changes that were already occurring, with the period after 1986 showing more extreme changes than had occurred in the decade prior to this.

The movement of employment out of the secondary sector and into the tertiary sector has been fluid for some groups and not so smooth for others. This is especially true for the period from 1986 to 1996 when certain age groups, ethnic groups and genders were affected more severely in terms of job losses, than were others. Analysis by numerical job gains and losses, although not ideal, gives an indication of which groups are the "winners" and which groups are the "losers" when examining employment change. European males experienced staggering losses in the secondary sector after 1986, with the majority of those losses occurring on a full-time basis. In terms of age, labour force entrants experienced substantial job losses, especially between 1986 and 1996. This occurred across all three industrial sectors with the largest losses occurring in the secondary sector. The simultaneous increases in the involvement of part-time work by this age group, especially in the tertiary sector (Honey, 1998; Shirley, 1995), lessened the impact of overall losses in total employment. In total, there were considerable losses experienced in the secondary sector across all ethnic groups, coupled with substantial gains in the tertiary sector. There were also significant gains in part-time work, especially

by those aged 15-24 years. The period when these changes occurred at their most extreme was between 1986 and 1996.

Numerically, the European population, especially males, experienced the most significant job losses. Maori and Pacific Islanders made very modest absolute gains, but it must be noted that because of the relative size of the cohorts reaching labour force entrance ages, these gains fell far below what could have been expected because of demographic supply. Comparing job gains and losses to changes in demographic supply presents a very different picture in terms of ethnic differentials. All three ethnic groups experienced considerable gains in their working age populations between 1976 and 1996. This was not matched however, by gains in employment. In contrast to the trends shown by the remaining ethnic groups, and in contrast to the numerical patterns shown earlier, the European population experienced favourable trends over the 20 year period with total employment gains being greater than increases in demographic supply. By age, the difference between Europeans and the remaining ethnic groups is more pronounced. For Maori and Pacific Islanders, those in the labour force entrance age groups experienced significantly low levels of job gains, including losses in the secondary sector. In terms of demographic supply for this age group, each ethnic group showed dramatic increases that were well above the gains shown in total, full-time and part-time employment.

4.2 Discussion

Perhaps the most salient of all labour market issues in New Zealand over the last couple of decades has been the employment problems of youth. At the 1991 census, the unemployment rate for those in their early 20s was around 17 per cent, and for teenagers (15-19 years), it was about 27 per cent. In comparison, for both Maori and Pacific Island teenagers, unemployment rates in 1991 were as high as 42 per cent of the labour force in that age group. Since these trends represent the highest measured levels of youth unemployment since the Great Depression, they have generated considerable concern and much debate.

By the use of some basic demographic accounting, this report has demonstrated the changes of employment in each major industrial sector over the last two decades. As changes to the industrial structure result in the contraction of some areas of employment and the expansion of others, various populations have been affected more severely than others have. Due to the vast ethnic differences that are present in terms of industrial employment, the effects of the contraction of employment, especially within the secondary sector industries, fell heavily on the Maori and Pacific Island populations.

It is clear from this report, that during the period between 1986 and 1996, there were heavy burdens placed upon the young, and on Maori and Pacific Islanders. Traditionally, this has been attributed to a downturn in labour demand and due to the frictional effects of New Zealand's economic restructuring. This report has captured an oft-forgotten factor that has also played a vital role in intensifying the trends, that of demographic supply. Past research (Honey, 1998) has shown that there were important demographic factors that were evident in exacerbating the negative effects of the restructuring conducted in

the mid 1980s. This report has supported that by demonstrating vast differences between the actual number of jobs gained and the expected numbers due to changes in demographic supply.

Both the Maori and Pacific Island populations experienced rapid increases in their working age populations during the period that this report covers. This was especially, true for those entering the labour force. But at the same time, New Zealand underwent a radical programme of restructuring and deregulation that had severe negative effects on the industries in which these groups were most represented. As a result, these populations suffered considerable job losses as well as an inadequate absorption of those entering the workforce. The decision to implement those rapid reforms seems to be performed with a total disregard for demographic factors. As a result, New Zealand now has a generation who carry a heavy burden and are still having trouble being absorbed into the workforce.

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