

# The future of work within households: Understanding household-level changes in the distribution of hours of paid work<sup>1</sup>

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## Abstract

In New Zealand, the weekly paid hours worked by individuals have generally not been considered in the context of hours of paid work of other adults who may live in that household. The aim of this project is to fill this research gap. Census data from 1986 through to 2001 is used in the study.

Key findings are:

- 1) that there has been a decline in the hours worked by very young people reflecting increases in both participation in tertiary education and part time work amongst this group;
- 2) there has been an increasing employment rate of older people, but with some decrease in the average hours worked, particularly amongst those over 70, as the size of the employed group expands;
- 3) while average hours of work have, overall, declined slightly for employed individuals, there has been some polarisation of hours with, in most age groups, growth in both short hours and long hours;
- 4) when the proportion of all individuals working 50 or more hours per week is considered, there was strong overall growth from 1986 through to 1996 then a plateauing through to 2001;
- 5) while there was a plateauing, or even decline, in the proportion of men working long hours in most age groups since 1996, in the 55-64 age group there was growth throughout the whole time period;
- 6) for women aged 45-54 and 55-64 there was strong growth in the proportion working 50 or more hours throughout the whole 1986 to 2001 period, with some slowing of growth for those aged 25-34 in the five years between 1996 to 2001;
- 7) New Zealand stands out internationally in terms of the proportion of workers putting in long hours;
- 8) the polarisation of hours also shows up amongst sole parents and those in single adult households;
- 9) growth in long hours of paid work tends to show up stronger in couple data than in individual data;

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<sup>1</sup> An earlier version of this paper was placed on Department of Labour website in November 2004. This contained incorrect information regarding the proportion of individual partnered mothers and fathers with a preschool child who worked 50 or more hours per week. The data contained in that paper in fact measured the proportion that worked more than 50 hours. This particularly understated the proportion of fathers working long hours as many record working exactly 50 hours. This paper contains the corrected data and was placed on the website in February 2005. Overall analysis and conclusions have not been affected by the corrections.

- 10) the proportion of couples who worked 100 or more hours of combined work increased throughout the whole 15 year period from 1986 to 2001;
- 11) the strongest growth in couples working long hours was where the female partner was aged 45-54 or 55-64;
- 12) while the longer total hours of work in couple households is primarily due to increases in women's employment rates, changing hours of work for individuals have also influenced the shifts;
- 13) qualifications are of some importance in hours of work both at the individual and household level – in 2001, well qualified individuals and couples were marginally more likely to have worked the longest hours but were far less likely to have worked short hours;
- 14) the presence, and age, of dependent children is a very important influence on women's working hours, and primarily due to this, on total working hours within couples;
- 15) also reflecting this, the growth in long hours in couples has been strongest amongst those couples with no dependent children;
- 16) on average, women, both as individuals and, when partnered, tend to work shorter hours than men;
- 17) however, women have been increasing their share of paid working hours in couples;
- 18) couples working the longest weekly hours generally tend to have the yearly highest incomes;
- 19) while international comparisons need to be treated with caution, in terms of average hours worked by couples, New Zealand couples appear to be at the high end of the hours spectrum when such comparisons are made;
- 20) feelings of "overwork" for some groups of New Zealanders are based on real changes that have taken place in the working hours of many individuals and households;
- 21) yet, much of this growth in working hours appears to be driven by factors other than sheer economic necessity;
- 22) at the same time, changes in workplace "norms" may be leading to expectations of longer hours even amongst those who appear to have strong negotiating ability in workplaces; and;
- 23) the research shows that the household unit of analysis can be just as important as the individual when analysing changes in hours of paid work.

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## **Executive summary**

### **1.1 Background**

International research indicates that, over the very long term, the average hours spent by employed individuals in paid work have reduced. Yet, in the last decade, concerns about overwork have re-emerged in New Zealand and other industrialised countries.

In contrast to the worries about “overwork”, there have also been times when “underwork”, particularly in the form of involuntary unemployment, has been a major concern in industrialised nations. For example, in New Zealand the depression of the 1930s and the more recent restructuring of the economy in the late 1980s through to the early 1990s led to many people being unemployed.

Although in most OECD countries the average working week is around 40 hours, this figure disguises much diversity in labour market activity. One segment of the population works very long hours while another has a short working week. Recent New Zealand research has also identified this pattern.

International comparative data suggest that New Zealand has one of the highest proportion of workers putting in long hours of paid work (50 or more hours per week). However, part-time work is also common in New Zealand.

Research in the US, UK and Australia on the working hours of both individuals and households suggests that while average hours of work have not changed much for employed individuals, there has been a polarisation of hours, with a growth in both short hours and long hours. It also suggests that “overwork” tends to show up stronger in couple data than in individual data. This research indicates that couple-level data is also important when studying changing hours of work.

In New Zealand, the hours worked by individuals are generally not considered in the context of hours of work of other adults who may live in that household.

Three specific objectives of this research were: 1) to understand medium-term changes in the distribution of paid work hours within prime working-aged households, particularly those raising children; 2) to understand medium-term changes in the distribution of paid work hours within older households; and, 3) to understand the gender dimensions of these changes within both prime-aged and older households

### **1.2 Data source**

The research uses data from the 1986, 1991, 1996 and 2001 New Zealand Censuses of Population and Dwelling. The five yearly census provides a record of labour force status and usual weekly hours of paid work.

Three family/household units of analysis are used. These are couple families, sole parent families and adults living on their own. In terms of couple families and sole parents, these family units can be living in households containing other adults and children.

Census data provide a snapshot of usual working hours. They give no idea of how long people remain in particular work patterns.

### **1.3 Results**

The main comparisons made in this report are between 1986 and 2001. In most, but not all, situations a comparison between 1986 and 2001 does represent a broad pattern of change. In addition, both 1986 and 2001 represent similar periods of economic activity, and also are similar points in time in terms of rates of unemployment. In contrast, the 1991 census represents a high point in unemployment.

#### *Employed individuals*

Changes in hours of paid work need to be considered against a backdrop of changes in employment rates for women and men. Between 1986 and 2001, there was an overall decline in employment rates for men and an increase for women. However, when age is considered, while there was a decline in employment rates for men in the broad 15-54 age group, there was an increase in older age groups. For women, the only decline in employment was in the 15-24 age group. Growth in employment was particularly strong for women in the 55-64 age group.

Shifts in hours of work also need to be considered in the context of changing demographics and major educational qualification improvements, particularly among women. The population is aging, and demographic data show that, for both men and women, there have been declines in the proportion of people in the 15-24 age group, but major increases in the broad 35-54 age group. There has also been a growth in the number of older people. In addition, between 1986 and 2001, there was a strong increase in the number of women relative to men in the 25-64 age group.

Overall, across society average hours of paid work for those employed declined slightly in the 15 years between 1986 and 2001. For employed men, average hours reduced from 46 hours per week to 45.6 hours. For employed women, the reduction was from 35.2 to 34.4 hours. However, there were some more significant declines in average hours worked amongst some age groups, notably those 15-24 and those 85 and older. The strongest increase in average working hours of the employed was amongst women aged 45-54, with an increase of just over two hours per week.

When hours worked are calculated across the whole population (whether they were working or not) overall hours of work for men declined from just over 32 to just over 28 per week. For women, there was a small increase from 16 and a half hours to just over 17.

However, averages disguise changes in the distribution of hours of paid work. For men, in almost all age groups between 1986 and 2001, there was a growth in the proportion working under 20 hours per week as well as an increase in the proportion working 50 or more hours. In 2001, 35.1 percent of men worked 50 hours or more per week.

For women, there was a slightly different pattern of changes between 1986 and 2001. In some age groups (25-34 and 45-54) there was a decline in the proportion working less than 20 hours per week. As with men, in the 15-25 age group there was very strong growth in the proportion of employed women working short hours. In contrast, in most age groups there was an increase in the proportion of women working 50 or more hours per week. However, even by 2001, far less women than men worked 50 or more hours per week. Overall, in 2001 13.4 percent of women worked these hours.

When just considering long hours of work (50 or more per week) for the total population aged 15 and older, there was strong overall growth from 1986 through to 1991. This growth continued through to the 1996 census. However, over the next five-year period there was a plateauing of the proportion of individuals working these long hours. This lack of overall growth between 1996 and 2001 reflects a slight decline in the proportion of men working long hours while, at the same time, there was slight growth in the proportion of women working long hours in this period.

When age, gender and timing of the changes are considered, while there was a plateauing, or even decline, in the proportion of men working long hours in most age groups post 1996, in the 55-64 and 65-74 age groups the proportion of men working these hours nevertheless increased throughout the whole 1986 to 2001 time period. For women, the pattern by age was more mixed over the four census time periods. However, there was strong growth in working long hours throughout the whole period amongst those aged 45-54 and the 55-64 age group.

When education and hours of work for prime working-aged men were considered, there was little difference (and little change) in average hours by groups in each level of formal education between 1986 and 2001. There was also little difference in the growth and proportion working long hours by education. Although there was growth in the proportion working under 20 hours per week amongst all educational groups, such short hours of work was more common in 2001 amongst men with no formal qualifications.

A stronger pattern in relation to education emerged for prime working-aged women. The average hours for well-educated women increased the most between 1986 and 2001, but with a slight decline in average hours for those with no qualifications. This pattern of higher education being associated with longer hours of work shows up when long hours and short hours were specifically considered.

When yearly personal income from all sources was considered, the data show that, in both 1986 and 2001, for prime working aged men and women there was a strong relationship between decile of income and weekly working hours. However, this relationship became stronger between 1986 and 2001. In 2001, those individuals working the longest hours generally also had the highest income.

Parents with young children represent an important subgroup of the population. In the past, among couples this has been the lifecycle stage where fathers are most likely to work long hours and mothers, if they were employed, to work relatively short hours. While the changes in average hours worked between 1986 and 2001 were not dramatic, there was some slight increase in average hours worked by both partnered fathers and mothers aged 25-44 with a pre-school child. In 2001, on average,

partnered fathers worked around 48 hours per week, and mothers 27 hours per week. These particular data do not take into account hours worked by partners.

The data do not support a growing polarisation of hours of work amongst partnered mothers with a child under five. Instead, there emerges a decline in the proportion of partnered mothers working short hours (under 20). There was also a slight increase, from a very low base, in the proportion of partnered fathers working under 20 hours per week. When long hours (50 or more) are considered, there was a strong increase in the proportion of partnered fathers working these hours, but a decline in the proportion of mothers working these hours. However, demographic and employment changes resulted in a higher absolute number of partnered mothers working 50 or more hours per week in 2001 than in 1986.

Education and income are also important when considering working hours of partnered parents with a preschool child. Mothers and fathers working the longest hours tend to have the highest levels of education. The partnered fathers most likely to work short hours are those with no formal qualifications.

The data show that while there still remain strong gender-based differences in the work patterns of partnered mothers and fathers, over time mothers' patterns of work have been changing to become closer to that of fathers. This is evidenced primarily in employment rates but also in the decline in the proportion of mothers working short hours.

### *Employed single parents*

The proportion of childrearing parents who lived as single-parent households increased between 1986 and 2001. When considering changes in hours worked for sole parents, it needs to be kept in mind that sole parents' employment rates have increasing in New Zealand. However, the data also show that employment rates for sole parents are still much lower than for partnered parents. Employment rates for sole fathers (a numerically much smaller group than sole mothers) are also much higher than for sole mothers.

As with trends for total individual adults, in the main childrearing ages there was some polarisation of hours, with an increasing proportion of employed sole parents working either short hours or long hours. For example, amongst sole mothers aged 25-34 there was a nearly 10-percentage point rise in the proportion working under 20 hours per week and a similar decline in the proportion working between 40 and 50 hours. In most age groups, there was also a small rise in the proportion of sole mothers working 50 or more hours per week.

Also like the pattern for partnered parents, employed sole fathers were far more likely to work long hours than sole mothers. The increase in the proportion of sole fathers working 50 or more hours per week between 1986 and 2001 was also greater than for sole mothers.

The data would suggest that the feeling of "overwork" experienced by some sole parents couples is based primarily on an increase in employment rates of sole parents, but, also, that a small group are working longer hours.



### *Employed single adults*

In recent decades there has been a strong growth in the proportion of individuals living alone. Until the mid 50s age group there are more men than women living in single adult households, but this then reverses. Given the growing importance of this household arrangement, changes in hours of work for this group are significant for overall trends in working time.

In most age groups of people living on their own, there has been a reduction in the proportion working “standard” hours. In the broad 15 to 64 age group, the strongest growth was in those working long hours.

Significantly more single men in prime working/childrearing age groups work long hours than partnered fathers in these age groups. Equally, single women are far more likely to work long hours than partnered women with young children.

### *Employed couples*

Changes in hours of work need to be set against changes in employment rates for couples. In the age range 15-54 (based on the woman’s age) there was a decline in the proportion of couples where one or both worked (that is an increase in the proportion of “work poor” couples), but an increase in such working couples in the 55-84 age groups (that is, a decline in “work poor” couples). The increase in working couples was particularly strong in the 55-64 age group. The increase in the proportion of couples where at least one partner works in the older age groups is not surprising given increasing employment rates for both older men and women.

Reflecting these changes in employment patterns, and changes in hours for individuals, overall total average combined hours for employed couples (where one or both worked) aged 25-84 increased. The strongest growth was for couples where the female partner was aged 25-34 or 45-64. For couples aged 25-34, average combined weekly hours worked increased from 65 in 1986 to just over 70 in 2001. For couples aged 55-64, the increase was from 53 hours per week to 62. Across all age groups, the national average hours worked by couples lifted by 4.6 hours between 1986 and 2001

Other key trends in couples’ working hours include: 1) in all age groups there has been a decline in the 40-45 hour peak of combined hours. This primarily reflects the decrease in the number of couples where there was just one full-time worker: 2) in the 25-24, and 55 through to 84 age groups there has been an increase in the 80-85 hour peak. This primarily reflects the increasing numbers of couples in these age groups where both work 40 hour weeks: and 3) in the groups within the broad 25-54 age span, the 80-85 hours of combined work peak is now larger than the 40-45 hour peak.

The polarisation of hours seen for individuals is also evident amongst couples. In all age groups, there has been a growth in the proportion of couples where combined work hours were under 30 per week and also for those whose hours were 100 or more per week. In 1986, 8.6 percent of all couples worked 100 or more hours per week. By 2001, this had increased to 13.5 percent.

There has also been some growth in all age groups where both partners work 50 or more hours per week. This latter finding is not surprising given the overall increase in the proportion of people in most age groups working 50 or more hours per week.

In terms of timing of the growth in long hours of work for couples, while after strong growth in previous time periods there was little change overall in the proportion of individuals working long hours between 1996 and 2001, the proportion of couples working combined long hours of work (100 or more hours per week) continued to increase over this time period. There was growth in long combined hours worked in each five-year period between 1986 and 2001.

When long hours and the age of the female partner were considered, the growth in combined long working hours for couples took place in each five year period between censuses for those aged 25-34, 45-54 and 55-64. However, there was little growth in the 35-44 age group and some decline amongst the 25-24 age group between 1996 and 2001.

Although there were relatively few couples where both worked 50 or more hours per week, when women's hours are considered men were more likely to work long hours if their partner also worked long hours. Men were less likely to work long hours if their partner was not in paid work. This suggests that while some couples will be working hours that compliment each other (that is one works short hours, one works long), others tend to work similar hours.

In both 1986 and 2001, it was the well-qualified couples that tended to work the longest average hours of combined work. In addition, while there was an increase in average hours worked in all educational combinations, the slowest growth was amongst couples with no formal qualifications. This suggests that couples who appeared to have the strongest negotiating position in labour market arrangements tended to choose to work the longest hours. However, it is possible that there was also increasing pressure to work longer hours in occupations requiring a high level of formal qualifications.

When couple deciles of yearly income (from all sources) are considered, the data show an overall gradient in average total weekly hours worked by couples relative to income. The couples with the highest combined income tended to put in the longest combined hours. In 2001, among couples aged 25-59 those in the top 10 percent of income worked, on average, just over 81 hours per week. Those in the bottom 10 percent worked 55 hours. This supports the idea that long hours of paid work among couples are often based on choice rather than purely economic need. However, this does not rule out that there might be a group of couples working long hours due to economic necessity.

The increase in total hours of work for many couples relates primarily to a change in employment rates for women rather than to any dramatic increase in working hours for individuals in couples. However, increases in hours amongst some individuals will have flowed through to longer working hours for some couples.

The data would suggest that the feeling of "overwork" experienced by many couples is based on an actual increase in total hours worked by these couples. But given the

polarisation in hours worked between 1986 and 2001, it is likely that there are also more couples that are feeling some sense of “underwork”.

Finally, while such comparisons are fraught with methodological problems, when compared with other advanced industrial countries New Zealand appears to be at the high end of average hours worked for couples.

### *Employed couples with children*

Like the distribution for total prime working aged couples, there is some evidence of a slight increase in both the proportion of employed childrearing couples working a short number of combined hours and those working longer hours. For example, for couples with a child under one year of age, 2.6 percent worked under 30 hours of combined work in 1986, but this had increased to 4.4 percent in 2001. Likewise, in 1986, 10.4 percent of these couples worked 80 or more hours per week, but this rose to 16.8 percent in 2001. As the age of the youngest child increases, the overall distribution of hours shifts towards longer combined hours. For example, in 2001 41 percent of couples with a child 5-15 worked 80 or more hours of combined work per week.

For couples with young children, the strongest growth has been in both the 50 to under 80 and the 80 to under 100 hour categories. This reflects an increase in the number of couples where both partners work 40 or more hour week, and some growth in the number of couples where one works full time and one part time but their total hours still exceed 50.

Differences in the distribution of total hours worked by couples in 2001 by age of the couple and whether they have dependent children were also explored. In the younger age groups of parents, there is a marked difference in the distributions, with couples without children far more likely to work longer hours. This difference reduces substantially as the parents move into older age groups. This primarily reflects that the children are generally also older in these older parental age groups.

While there was little difference in average working hours in 1986 by the education level of childrearing couples, by 2001 average hours in well-educated couples were the longest. In 1986, although the differences were very small, it was poorly educated childrearing couples that had the highest proportion working long hours. By 2001, there was little difference in the proportion working long hours by qualification level. Again, the data indicate that while a group of poorly educated childrearing couples may be forced to work long hours due to economic necessity, the largest increase in hours has come about within higher educated couples.

While, when individual data was considered, fathers with no qualifications were the most likely to very work long hours (more than 50 hours per week), when a childrearing couple context was considered this effect appears to be moderated by the mothers’ work patterns. This suggests that some poorly qualified fathers may be working long hours to make up for their partners non-employment or low hours of work. This might be the result of ideology, lack of affordable childcare or a range of other factors.

Again, the data suggests that the feeling of “overwork” experienced by many couples with young children is based on an actual increase in total hours worked by these couples.

### *Women’s share of paid working hours in employed couples*

The increasing employment of partnered women, as well as the higher proportion working long hours, has led to women in couples working a higher proportion of hours. There was also an overall shift in the distribution of hours worked by women relative to men in prime working age couples. The largest change between 1986 and 2001 was in the group where women contributed between 0 and less than 10 percent of the total hours worked. The proportion of women in this group declined from just under a third to a fifth. These data include those couples where one partner, usually the woman, was not in paid work. As an alternative measure, in 1986, just under 20 percent of women in prime working aged couples contributed half or more of the hours worked. By 2001, this had risen to 28 percent.

When a comparison is made with a selection of industrialised countries, the proportion of New Zealand prime-working aged couples where both partners were in paid work is high compared with countries such as Canada, Germany, Italy, the Netherlands and UK, lower than Finland and Sweden, but about the same level as the US.

### *Overall findings*

Not surprisingly, many of the trends in hours of paid work found in Australia, the UK, and US can be seen in New Zealand. Some of the key universal trends are: 1) while average hours of work have not changed much for individuals, there has been a polarisation of hours characterised by a growth in both short hours and long hours; 2) while across society, the growth in the proportion of individuals who work long hours had slowed, growth is still occurring within particular groups; 3) “overwork” tends to show up more strongly in couple data than in individual data – this includes couples raising children; 4) the growth in the proportion of couples working long combined hours has not slowed 3) the longer total hours of work in couple households is primarily due to increases in women’s employment rates; 4) qualifications are of some importance for hours of work both at the individual and household level; 5) the presence, and age, of dependent children is also a very important influence on total working hours within couples; 6) on average, women tend to work shorter hours than men; 7) women have been increasing their share of paid working hours in couples; 8) generally, individuals and couples working the longest hours have the highest levels of education and yearly incomes; 9) feelings of “overwork” are based on real changes that have taken place in working hours of many households; and 10) much of this growth in working hours appears to be the result of factors other than simply economic necessity alone.

## **1.4 Recommendations**

In reportage from the Household Labour Force Survey, Statistics New Zealand now regularly provides data on trends with regards to all-work and no-work households. It would be useful if Statistics New Zealand, or the Department of Labour, from time to time also published data on total working time of a range of household types. This would be in line with the practice of the Australian Bureau of Statistics.

Household patterns of work also need to be given greater consideration in work/life balance discussions. Such discussions need to include the relative hours worked by women and men within couple households.

While averages have their place when analysing changes in working hour changes for both individuals and households, only relying on average data can disguise more complex changes underlying the averages.

## Introduction

International research indicates that, over the very long term, the average hours spent by individuals in paid work have reduced (Bosch and Lehndorff 2001). Yet, in the last decade, concerns about overwork in New Zealand have re-emerged (e.g. Department of Labour 2004, New Zealand Council of Trade Unions 2002). This parallels concerns being expressed in many other countries (e.g. in the U.S. Schor 1991, in the U.K. Equal Opportunities Commission 2003 and in Australia, by the Australian Council of Trade Unions - ACTU 2003). While some of the worries are new, many are not. New Zealand, like various other industrialised countries, has a long history of debates about working hours. For example, in New Zealand, the carpenter Samuel Parnell is credited with successfully fighting for the establishment of a locally based, eight-hour working day in Wellington in 1840 (Jobs Letter 2003). In the latter part of the 1800s, the international labour movement promoted the eight-hour day, but it was not until the 1940s that the first Labour Government introduced the 8-hour day and 40-hour week as standard conditions for most workers in New Zealand (ibid).<sup>2</sup> However, in recent decades changes in labour legislation and, in parallel with this, a reduction in union membership have contributed of paid working hours increasingly becoming the subject of negotiation between individual employees and employers. In addition, changes in other areas of legislation, such as the deregulation of shop trading hours, have provided opportunities for transformations in working hours.

Prompting some of the discussions of hours of work has been the very large increase in the participation of women, particularly partnered mothers, in paid work. While this is a trend that has been occurring since the 1950s, in recent years much of the expansion has been amongst mothers of young children. Discussions about the possible effects of women working on children at times include consideration of working hours (for a review of recent studies see Varuhas et al 2003). While a spell of part-time work while children are young has long been an accepted part of a women's life cycle in New Zealand, various factors, including changes in attitudes, increases in level of female education, declining real incomes of some men, the provision of job protection through parental leave legislation and the greater availability of subsidised childcare, has lead to a group of women having few breaks in full time work through their prime working, and childbearing, ages. Particularly in the US, this has led to the growth of a research and advocacy interest on how women and, more recently, men "juggle" their work and family responsibilities.

Yet, concerns about long working hours in New Zealand are much wider than how "overwork" by mothers might affect their children. *The Social Report 2003* (Ministry of Social Development, 2003) identified a group who were working 50 hours or longer, a group considered to be working long hours. The report notes:

The proportion of the population working long hours is a proxy indicator that provides information on work/life balance. People working long hours may have less time available for other aspects of their lives, such as leisure or time with family members.

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<sup>2</sup> While women were at the time a relatively small part of the formal economy at the time, the *1873 Employment of Females Act* restricted the hours they could be required to work to no more than eight hours between 9am and 6pm.

Various other concerns have been expressed about the possible effects of “overwork”. These include health and safety issues, for example for long distance truck drivers, and whether long hours of paid work “crowd out” valuable unpaid community work (e.g. Dawson et al 2001, Golden and Jorgensen 2002, Pocock 2001, White and Beswick 2003).

In contrast to the worry about “overwork”, over the long term there have also been times when “underwork”, particularly in the form of involuntary unemployment, has emerged as a major concern for many New Zealanders. For example, the depression of the 1930s and the more recent restructuring of the economy in the late 1980s through to the early 1990s led to many people being either unemployed or underemployed (Singley and Callister 2004). At times of high unemployment, concerns are often expressed that paid work may, in fact, be disappearing. In the early 1990s (when concepts of overwork were also re-emerging) some US and European analysts were expressing concern about the possible disappearance of work and the increasing insecurity of many of those who remain in paid work. For instance, in Britain, Hewitt (1993: 1) argued that the “48 hours for 48 weeks for 48 years” model of paid work has been disappearing while in the US, Rifkin (1994) discussed the “end of work” for some groups. At the end of the decade, Forrester (1999), a French writer, presented a scenario of major continuing loss of work within the market sector of developed economies. In the same period, Thomson (1999) was widely quoted in the popular media in regards to the apparent disappearance of work amongst those aged 45 and over. While in the early part of the 21<sup>st</sup> century unemployment is at a relatively low level in many industrialised countries, concerns about underwork amongst particular population groups, such as Maori, those with little education and sole parents in New Zealand, remain.

Underwork is also now being considered in light of the aging population in industrialised economies. Relatively low employment rates among older age groups alongside a growth in the size of this group suggests there is likely to be a decline in the number of workers relative to those in retirement. Research is now focusing on ways to maximize the employment potential of older people (Davey and Cornwall, 2003).

Over time, the research on both overwork and underwork has become more sophisticated. For instance, age, and connected with this lifecycle stage, are progressively more likely to be considered in studies (McGrattan and Rogerson, 1998). Second, preferences for working hours are increasingly being researched (e.g. Böheim and Taylor 2004, Reynolds 2003). This preference research indicates that for a number of workers there is a mismatch between actual and preferred hours. Some workers want longer hours, while other want to work fewer hours. Finally, there is a growing recognition that many workers are not acting solely as individuals; they are often making decisions based on the work patterns of other members of their households (e.g. Clarkberg and Moen 2001, Jacobs and Gerson 2001)

While household contexts are sometimes considered in New Zealand discussions of working hours, such as whether sole or partnered mothers with young children are working long hours, generally the hours worked by individuals are not considered in the context of hours of work of other adults who may live in that household. The aim of this project is to fill this gap in the research in New Zealand. Particular attention is

placed on the changing patterns of paid work of men and women in both the labour force as a whole and within households. Three specific objectives were:

- a. To understand medium-term changes in the distribution of hours of paid work within prime working-aged households, particularly those raising children.
- b. To understand medium-term changes in the distribution of hours of paid work within older households.
- c. To understand the gender dimensions of changes of hours of work within both prime-aged and older households.

A final objective was to gain some understanding of how long households stay in a particular work arrangement. This involved an exploratory use of a linked household dataset created from the Household Labour Force Survey.<sup>3</sup> The results from this research are presented in a separate paper (Callister and Singley forthcoming).

## **Why a household perspective is important**

Much useful information can be obtained from analysing the work patterns of individuals. For example, Stier and Lewin-Epstein (2003) note that although in most OECD countries the average working week is around 40 hours, this average figure disguises much diversity in labour market activity. In particular, the authors highlight a recent trend toward a polarisation in hours of work: One segment of the population works very long hours while another has a short working week (Golden and Figart 2000, Jacobs and Gerson 2001, OECD 1998). Recent New Zealand research has also identified this pattern (Grimmond 2003).

Yet, particularly within prime working ages, a high proportion of individual adults live with other adults in households. In addition, a significant number of these households contain dependent children. Several inter-related changes in both the distribution and demographics of paid work place increasing importance on understanding household-based employment patterns. For instance, research in a number of countries has demonstrated that there has been a growth in both “work-poor” (no job) and “work-rich” (all adults have a job) households amongst those in prime working ages. This type of measure provides a crude indication that there has been a concentration of paid employment at the household level across several OECD countries, including New Zealand, Australia and the UK (Gregg and Wadsworth 2002, OECD 1998, Singley and Callister 2004). The concentration of work in particular households is linked to changes in men and women’s employment patterns and to shifts in household structure favouring one-adult households (Singley and Callister 2004). US research indicates that when households are the unit of analysis, increases in participation rates by partnered women have lead to quite dramatic increases in the total working hours of couple families (Matz and Pitt-Catsoupes 2003):

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<sup>3</sup> This database was constructed as part of the FRST project “Work and family life in New Zealand and outcomes for children”.



...an important part of the puzzle in what's happening to work hours can be resolved if you take the family as a unit of analysis as opposed to the individual worker. Time trends for the individual worker have been remarkably steady ... (w)hat has changed much more dramatically is the demographic unit. Many more people are part of dual-earner couples today, as compared with 30 years ago. Dual-earner couples tend to have work weeks around 80 hours per week as opposed to male breadwinner couples who typically have 45 hours of paid work per week. When you have fewer 45 hour couples and more 80-hour couples, families are spending more time in paid employment than used to be the case.<sup>4</sup>

These are the dual-earner couples that are the focus of much work/balance research in the US. There is a growing international literature on possible challenges associated with long working hours within households (e.g. in the UK, Stewart and Swaffield, 1997, in the US, Clarkberg and Moen 2001). In both single-parent households and dual-earner childrearing households, long hours of paid work have the potential to lead to an imbalance between work and family time. It may lead to parents being stressed and / or not being able to spend sufficient time with their children.

At the other end of the spectrum are the work-poor households. In relation to prime working-aged households, recent New Zealand research has focussed on the social policy implications of the growth of work-poor households, especially those raising children (Singley and Callister 2004). However, there is also awareness in the international literature that there are issues of involuntary underwork within some so-called "work-rich" household with such underwork often associated with low individual and household earnings. The classification of households as being work-rich has been relatively crude. In this system of measurement a person is either in paid work or out of it, with no consideration given to changing hours of work within households. Indeed, international research on the changing distribution of hours of paid work within households indicates that within work-rich households there has also been a polarisation of hours worked. For example, Australian research by Burbidge and Sheehan (2001) indicates that some "work-rich" households are working relatively short hours, while at the other extreme there are some households that over recent decades have increased their overall paid workload.

In couple households there is a further issue that is important when considering hours of paid work, unpaid work and earnings. That is the gender division of labour. The literature on the polarisation of paid work has identified a strong decline in traditional "mixed work" couples. These were the couples where the male was in paid work, almost always working full-time, and their female partner not in paid work usually looking after children. Although there has been some small growth in so called "role reversal" couples, where the woman is the sole paid worker, this has not matched the decline in the traditional mixed work couples (Callister 1994).

## **Making decisions about paid work within a household setting**

There are two main levels to discussions of household decision making in relation to employment and hours worked. The first revolves around issues of whether a couple

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<sup>4</sup> There is an ongoing debate as to whether increasing hours of paid work in households is leading to a reduced time investment in children (e.g. Bianchi 2000).

forms (or remains intact). The second is in relation to bargaining about working hours within couple households.<sup>5</sup>

Early economic theories on the workings of the marriage market have a strong focus on individual utility maximisation and processes of rational decision-making. The Becker model of partner selection stresses comparative advantage, with men generally seen as having a comparative advantage in paid work, and women an advantage in unpaid work (Becker 1981). Under this model women would, therefore, tend to seek partners who signal, often through their level of education, the ability to earn a good income. This would generally suggest, before they were formed, the expectation within opposite sex couples, and particularly couples raising children, was that women were more likely than men to either have spells of not being in the labour force or to work part time.

Set alongside theories of comparative advantage are also theories of individuals seeking out some similar characteristics in potential partners (Callister 1998). Such characteristics include education and commitment to career. Those with high levels of education often seek partners with similar levels of education. Thus, those with generally the highest levels of bargaining power in the marriage market, also have some degree of bargaining power in the labour market. Those with the least bargaining power in the labour market may even find it difficult to attract a partner (Callister 2000).

Once couples form there has tended to be an assumption in the economics literature that the family acted as if it were maximising a family based utility function. However, individuals within households often do have differing preferences and this means that bargaining is likely to play an important role in household decision-making about such issues as the household division of paid and unpaid work. Yet, family members depend on each other materially and because they have interdependent utility functions they take each other's interests into account in their decision-making.

There is an expanding theoretical and empirical literature on household bargaining (e.g. Browning *et al* 1994, Dasgupta 1999, Lundberg and Pollak 1994 1996). While not citing this bargaining literature, Gregg and Wadsworth (1994) point out that the work decisions of household members are influenced by the decisions being made by other potential workers in that household. Specifically in relation to older couples, research undertaken in the U.S. shows that retirement decisions in couple households are often strongly influenced by the characteristics of both partners and the options available to both of them (Coile 2003, Han and Moen 2001, Henretta *et al* 1993, Lundberg *et al* 2003, Moen and Swisher 2003).

The basis for bargaining within couples can change over time reflecting changes both in the characteristics of individuals and social norms. For example, the "wife at home" model (or working short hours of work) has often been seen as advantageous for advancing the careers of men. Hakim (2000) has put forward the theory that a significant group of women have a preference for short hours or no hours. If living in

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<sup>5</sup> Bargaining while also take place within extended family households. In addition some bargaining will be taking place across households, for example over childcare responsibilities in holidays by separated parents.

couples, in general this then requires their partner to work full-time, with the possibility of working long hours. Hakim hypothesises that most men are work focussed. This would suggest that, when negotiations take place, most men would be bargaining with a woman wanting to work less than full time, and most women bargaining with a man wanting to work full time. This indicates the existence, often, of complimentary roles rather than similar orientations towards paid work. However, other researchers challenge this view.

While for some high earning men, there may still be some advantages in having a wife at home caring for the children, organising dinner parties or, if they are an academic, having someone editing their work, for middle-income men there may now be some advantages in having a partner in paid work. For example, Kalmijn (1994) suggests that a wife's participation in paid work may assist the husband's access to networks that might help his career, her income might enable him to invest in additional human capital, and may also reduce his need to look at short term, initially higher paying, jobs but instead focus on long-term career objectives.

In a time use study in Sweden, Sandqvist (1997) found that in two-parent families where the mothers worked full time, the fathers were working longer hours than if the mother was working part time. She speculated that spouses tend to have similar orientations towards paid work rather than complementing each other. However, she could not tell from the data whether it was through "choice" or economic necessity. In the UK, Böheim and Taylor (2001) also provide evidence suggesting that interdependencies exist in family labour supply preferences. They found that married men and women were more likely to be "over employed" if their spouse was also "over employed".

Finally, there is some potential for intra-household bargaining to be taking place in relation to employment. For example, a separated couple who share custody of a child may be endeavouring to develop work schedules and working hours that allow them to share care.

### **Why might there be a polarisation of hours worked by individuals and households?**

While changes in working hours are characterised in this section as "polarisation", another way of looking at patterns of work is that, historically, choice of hours was constrained around a narrow band of 40 hours per week. In a society with more diversity in lifestyles and more individual choice, a considerable variation in hours worked could be expected.

A range of theories have been put forward as to why there might be a growth in both long and short hours of paid work amongst individuals and households. Some theories focus on questions of labour supply, others on labour demand. On the supply side, working hours are seen as reflecting workers' preferences rather than being determined by employers (or, in some situations, unions). When not constrained by standard contracts, it would seem that workers should actively choose how much time to allocate to market work relative to other activities.

A set of theories about work choices has been put forward by Hakim (2000) in relation to women. Hakim suggests that there are, in fact, three relatively distinct groups of women in industrialised countries. One group is “home-centred.” These are women who prefer not to be in paid work. The second, and assumed to be the largest group, take an “adaptive” strategy. These women want to work, but are not totally committed to their work career. Often these women will work part time. The third are a “work-centred” group. This last group is highly committed to paid work and have a large investment in qualifications/training for employment. These women will often not have children (Sceats 2003). In a less developed part of her theory, Hakim suggests that men may be able to be divided into the same three groups, but with most falling into the work-centred category. One aspect of preferences that Hakim does not discuss in any detail is that the work decisions made by women often cannot be made in isolation. For example, a woman making a home-centred decision generally needs a partner who is work centred. Changes in the size of each group, brought about by changing social norms or perhaps changes in social policy, are likely to affect working hours.

Hakim’s theories have been challenged by a number of researchers. For example, Stier and Lewin-Epstein (2003) cite a number of studies that found many women who work part time would actually prefer either to work full time or to increase their hours of work. Official employment surveys in New Zealand also suggest a significant number of workers, particularly those working short hours, would like to increase their hours of work. This is supported by an international survey that included a New Zealand component (ibid). The data from this survey suggest that many workers’ preferences for working hours are constrained. These constraints can come from a variety of sources. It may be that employers only offer part-time jobs or, perhaps, it could be due to a shortage of affordable, quality childcare. While there is often the view that women will want to work part time when they have young children, Varuhas et al (2003) note that different people have dissimilar preferences for balancing work with the needs of family life. There is, therefore, no single or universal level of work/family balance that will satisfy all workers.

Choices to work part-time, particularly amongst women, can often be explained by a desire, or need, to care for children. But other voluntary reasons for working part time include a need to combine work with studying, or that a person has a strong interest in some out-of-work activity. A period of part-time work will often mark a lifecycle transition, for example between finishing education and starting a career; between full-time childrearing and full-time work; or between full-time work and retirement.

Declining hours of work for particular individuals might also indicate that they have a backward, rather than the more commonly assumed forward sloping labour supply curve. If their hourly earnings rise, perhaps due to skill shortages, they may opt for fewer hours if they have a set target income.

Finally, a trend to shorter hours can represent a demand-side response to changes in the economy and/or labour legislation. In the US, part-time jobs often do not attract a range of non-wage benefits, such as health care or retirement subsidies. Therefore, such work can result in lower costs to employers. In countries such as New Zealand part-time work can also result in lower costs to employers. For example, an employee may only be required to work peak hours during a day, such as bank tellers covering

the lunch period. International research indicates that part-time workers are less likely to receive on-the-job training and other benefits than full-time workers (e.g. Department of Trade and Industry 2004).

There is also a wide range of theories as to why a significant number of workers might be increasing their hours of paid work. Again, there are both supply side and demand side theories.

In the US, Schor (1998) has argued that long hours have been driven by a culture of consumption. Competitive materialism constantly requires additional financial resources, which many Americans try to meet by increasing the number of hours they work for pay. Taking a slightly different angle, George (2000) suggests that much of the overwork in the United States is due to a desire for “over consumption”. He points out subtle differences between a “work and spend” theory based on rising material expectations (spending driven by higher incomes) and a “spend and work” concept (work hours driven by increasing consumption goals). On balance, he argues that the latter mechanism is the strongest in United States’ culture and that very effective marketing and advertising industries help drive this.

Hochschild (1997), on the other hand, focused her explanation on the conflicting time demands produced by the workplace and the family in relation to the changing perceptions of the rewards offered by each. Based on a small-scale study she argues that many workers, especially women, experience time pressures and insensitive demands from their families and, as a response, seek refuge at work, where they find support and recognition from coworkers and enhanced career opportunities. Thus, the observed long working hours experienced mainly by the highly-educated, white-collar professionals may signify their preferences for paid work activities.

While some US research focuses on over consumption, other research notes that for some people on low hourly wages long hours of work are a requisite to earning an adequate income (Rones et al 2001). In terms of increasing total hours for couples, there is much international evidence to suggest that many couples need two incomes to maintain their target standard of living (e.g. Harkness et al 1996).<sup>6</sup> When women or other family members move into paid work to maintain family income this is often described as the “added worker” effect. Rankin (1993) notes that this is where workforce participation is determined more by total disposable household incomes than by wage rates. In times of falling real incomes, family members not in the workforce seek employment as a means of preserving their families’ living standards. The need for an additional income to meet existing commitments can mean that additional workers show a low sensitivity to wages offered. Added workers will tend to take the low paid, part-time jobs that primary income earners will try and avoid.

Yet, a group of women are increasing their participation in paid work due to their investment in skills and desire to create a well-earning career. In fact, Juhn and Murphy (1995) found that, in 1940, the highest labour market participation by wives was in families where the male was in the bottom quintile of income but, by 1990, the highest rates were amongst wives with men in the middle quintile of income

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<sup>6</sup> This is presumably a moving target that rises over time relative to some “average” standard of living. However, if their target is relative to some upper income group and there is an increase in income inequality, this then further increases the perceived need for additional income.

Bell and Freeman (2001) suggest that there are particular incentives to work long hours in countries with a high level of wage inequality, such as the United States, Britain and New Zealand. Working hard is potentially rewarded through career advancement, while a lack of perceived effort can attract a major earnings penalty. In addition, particularly in countries like the US, low income can result in living in geographic areas with high crime and poor schooling increasing the incentives to work hard. In addition, most individuals have “forward sloping” labour supply curves. That is, if pay rates go up they will supply more labour (Contensou and Vranceanu 2000).

Another potential driver behind increasing hours is the changing occupational mix in the economy. In New Zealand, the longest hours worked are by people in agricultural occupations (including forestry and fishing), managers, professionals and plant and machinery operators (Callister 2000). This is a pattern seen in other countries as well (e.g. Kodz 2003). While the proportion of people employed in agricultural occupations has been decreasing and is now relatively small in industrialised countries, over the long term there has been strong growth in the proportion of workers in managerial and professional occupations. This includes both men and women (Callister 2000). There has also been a strong expansion of sales and service occupations, jobs that often have short hours. While the occupational shifts have tended to increase the proportion of people working long hours, the changes also tend to lead to a group working short hours.

Working hard may also provide a higher level of job security. Hours of paid work may therefore increase in times of high unemployment or other periods of job insecurity. Equally, hours of work might increase in times of economic expansion and skills shortages. For example, Hays New Zealand (2004) reported in August 2004 that 52 percent of New Zealand companies had increased their overtime levels in the previous year. This was a period when unemployment levels were very low.

The housing market potentially also provides incentives to work longer hours. In a time of rapidly rising property prices, owning a house can become unaffordable for first homeowners on standard hours of paid work. Initial home ownership might become more dependent on longer hours of work for individuals and couples.

Some labour market policies could also affect hours worked. For example, policies that place restrictions on hiring and firing decisions might mean that employers are more likely to offer more overtime in times of economic expansion and cut hours of work in a downturn instead of hiring and firing people. If hours of paid work are calculated for those actually employed, it is possible to have a situation of declining employment alongside increasing hours for those employed.

Changes in the level of self-employment may have an influence on working hours. The self-employed work more diverse hours, including a group who work very hours. This latter group includes farmers and those who are self-employed with employees. In New Zealand, after a long period of decline in recent decades self-employment has again been increasing.

Long hours could also come about through individuals working a number of jobs. Wooden and Loundes (2001) found that in Australia a small proportion, about 7 percent, of the long-hours workers were only working these hours because they had more than one job. They note that this could be the result of either a strong preference for additional working time (and income) or the inability to secure a full-time job. However, the researchers argue that it is important to recognise this work pattern is not the direct result of requirements imposed by individual employers.

There have been a number of studies to assess whether many of those working long hours would prefer to reduce their hours of work. These studies indicate that while there is a group wanting shorter hours, many people are nevertheless happy working long hours. Overseas studies also suggest that work/life conflict is more likely to produce a desire for fewer hours when employees are well off economically (Reynolds 2003, Stier and Lewin-Epstein 2003). One study found that members of dual earner households without children and male breadwinners without children were most likely to desire fewer hours. Another found that those whose standard of living is better secured—that is, persons with higher education, those residing in households with a high level of income, and the older age groups—would prefer to reduce their workload, with the opposite being true for the less educated with low family earnings. There is some evidence that well off people have the most choices in alternative uses of time and are most likely to complain about a “time crunch” because they want to “have it all” (Hamermesh and Lee 2003).

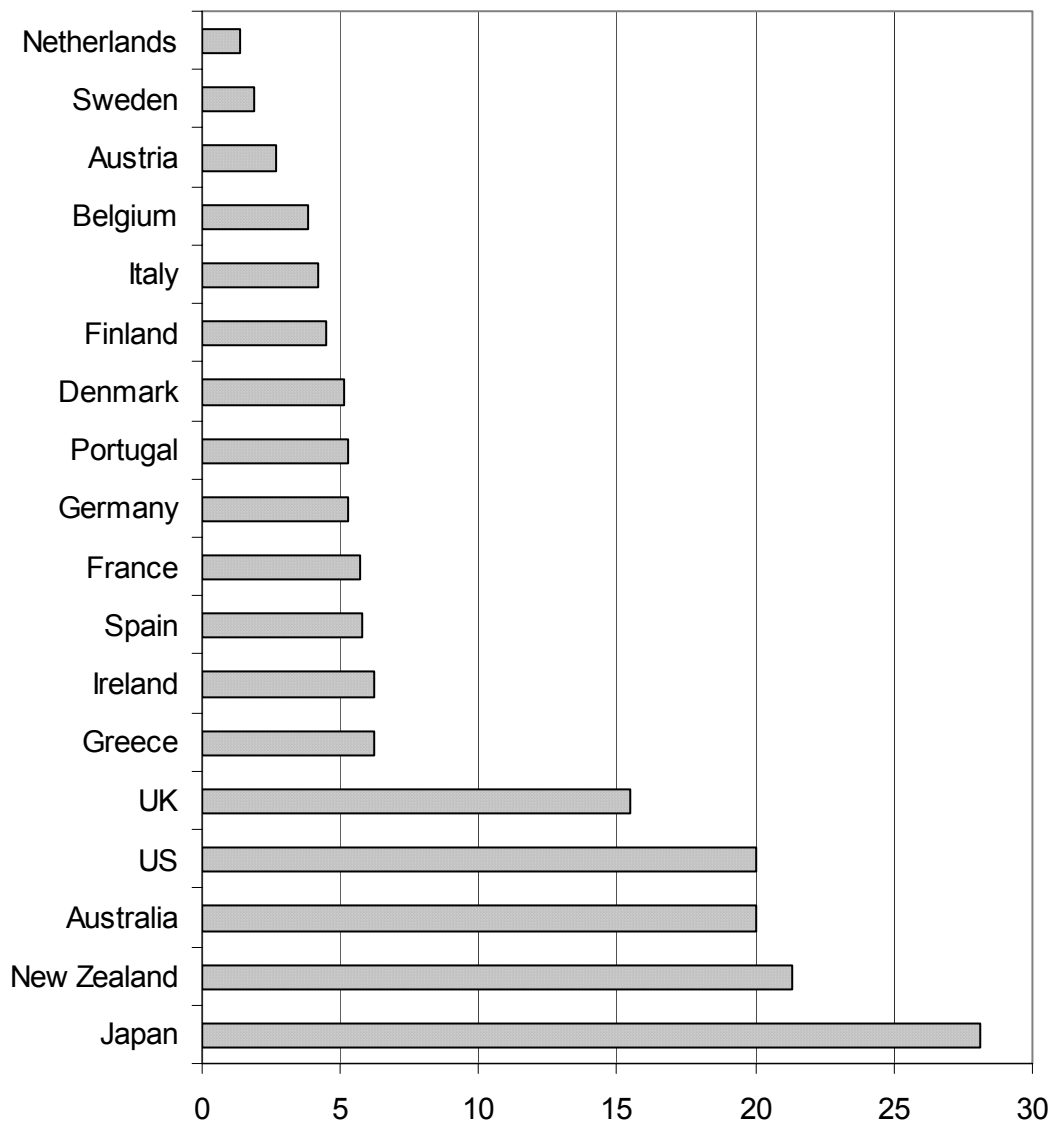
In Australia, Wooden and Loundes (2001) found that the majority (59 percent) of long hour employees (49 or more hours per week) were “happy” with such arrangements. Also in Australia, Drago and Tseng (2003) used data from the first wave of the Household, Income and Labour Dynamics in Australia (HILDA) Survey to analyse usual and preferred working time arrangements across a variety of family types. They found that many “short-hour” individuals wanted longer hours of employment, while many “long-hour” individuals would prefer shorter hours. They found that the group working long hours and desiring shorter hours tends to be larger. In addition, they report that for men and women in a variety of family circumstances, the average employee desires fewer hours. The major exception was lone employed mothers, who, on average, would prefer longer hours (around 2 hours per week) than those for which they were currently employed.

Finally, while this study focuses on weekly hours of paid work it is worth keeping in mind other measures, such as yearly hours or lifetime hours. As an example, calculations by the European Union show that lifetime hours can be important (Moss and Devon 1999). These data show expected years in employment for women between 25 and 64 by EU member state in 1995. Despite having relatively low hours of weekly work, Sweden came out the highest, with women working on average 32.5 years. The next highest was Norway at 28.9 years, followed by the United Kingdom at 26.2 years. The lowest is Spain at 13.7. These type of data are important because while cross-sectional data show that groups may have time out of work (for example, mothers in Sweden generally take a year out of work around the birth of their children) or work part-time at certain times in their careers or lifecycles, this does not mean that their overall lifetime working hours are short.

## Key changes in working hours identified in New Zealand, US and Australian studies

Figure 1 shows the proportion of employees working 50 or more hours per week in a selection of OECD countries. It suggests that New Zealand has one of the highest proportion of workers putting in long hours of paid work.

**Figure 1: Proportion of employees working 50 or more hours per week in selected OECD countries, 2000**



*Notes:* (1) Dependent employees in non-agricultural sectors; (2) 50 hours and more per week are reported for all countries except the US and Japan where the measure is 49 hours and more; (3) For the US, 1998 data are used. US data are not strictly comparable due to the changes in survey methods.

Source: Messenger (2004)



In New Zealand, Household Labour Force data, using a measure of usual hours of paid work work, and based on median hours, show that between 1986 and 2001 male hours stayed steady at around 41 per week, while median female hours decreased slightly from 35 to 34. However, the data also showed some shift away from a standard 40 hour week for both women and men (Grimmond 2003). In addition, the data indicated, again for both women and men, a downward trend in the proportion working under 40 hours per week, and an upward trend in those working more than 40 hours. Grimmond notes that although 40 percent of employment growth in the last 15 years came from people working over 40 hours per week, this group contributed to 66 percent of the increase in total hours worked in the economy. Grimmond also undertook some preliminary analysis to determine if workers were putting in longer hours to compensate for a lack of increases in wages. He concludes that the increases in hours worked appear to have been largely voluntary and have not been a response to a lack of wage growth. He also notes that the variation in hours worked by occupation appear to be stronger than variations over time.

HLFS data indicate a small increase in the proportion of individuals working long hours. In 2002, 21 percent of employed persons reported they usually worked 50 or more hours a week. The proportion of employed people working long hours increased from 17 percent in 1986 to 21 percent in 1994 and has since remained at 21-22 percent (Ministry of Social Development 2003). The MSD study shows that the increase in working long hours was most pronounced among older workers, particularly older men. The proportion of employed men aged 45-64 who usually work 50 or more hours a week increased from 25 percent in 1986 to 34 percent in 2002. They further note that employed men in this age group have become the most likely group to work long hours. This group have displaced men aged 25-44 years as the group most likely to work 50 or more hours per week. Earlier research using census data showed some polarisation in hours for both men and women between 1986 and 1996 (Callister 2000).

There has been little research in New Zealand on working hours on a household basis. Even the research on sole parents' patterns of paid work tends to simply classify working hours into part-time and full-time work. However, an initial exploration, using census data, of changes in working hours among New Zealand couples aged 25-59 (based on the woman's age) indicated some polarisation in hours had occurred between 1986 and 1996 (Callister 2000).

In the US, McGrattan and Rogerson (1998) used census data to examine changes in hours worked since 1950. The researchers used two measures: 1) average hours for those employed; and 2) average hours for the total working aged population. The second measure takes into account changes in employment rates. On the first measure there was a decline in hours between 1950 and 1970, but then little change through to 1990. On the latter measure, there was little change across the whole period. When gender was taken into account, the average hours per male declined (from just over 33 to just under 29) but for women they increased significantly (from 11 to just over 19). This primarily reflected the increasing employment rates of women rather than increasing hours for those employed. The research also identified significant changes in average hours worked per person when age was the main variable. There were increases in the 15-54 age group (reflecting changes in employment rates of women, particularly mothers), but declines amongst older people.

Costa (2000) has also examined changes in working hours in the US. She found that daily hours of work for men in the top half of the wage distribution increased between 1973 and 1991 by between 0.3 and 0.5 hours per day. Women followed a similar pattern of change. At the bottom of the income distribution, daily hours declined by over one-half hour for men and women in the lowest wage decile.

Despite no major changes in daily or weekly hours worked among employed individuals, feeling of “overwork” have emerged for individuals living in families in the US.<sup>7</sup> This has prompted researchers to examine couples’ total hours of work.

Jacobs and Gerson (2001) used 1970 and 1997 household labour force surveys (CPS) to investigate the distribution of working hours across dual-earner couples and single parents. Their research shows that it has been the shift from male-breadwinner to dual earner and single parent households rather than growth in working hours per se that has led to concerns about work balance issues. In an analysis of trends in joint hours of paid work for non-farm married couples between 1970-1997 aged 18-64, it was found that, in 1970, 3.1 percent worked 100 or more hours per week, but this had risen to 8.6 percent in 1997. Wives’ hours in dual-income couples had not changed all that much, rising from 34 to just over 36 per week, while their husbands rose by just one hour from 44 to 45 per week. Jacobs and Gerson argue that researchers and policy makers need to focus more on work patterns in a family context rather than on individuals alone.

Moen and Sweet (2003) also argue that household patterns of work need to be considered more in work/family debates. This includes examining the relative hours worked by women and men within households. They suggest that much of the rise in “dual career” couples has been due to growth in what they call the “neotraditional” family. This is one where both heterosexual parents participate in the labour market and in household and child care tasks, but the division of labour is highly unequal, with the man performing a disproportionate amount of paid work and the woman undertaking most unpaid work for the family. This suggests that alongside an examination of changing hours of work for couples, there should be an investigation of the changing contribution of men and women to hours of paid work. Ideally, hours of unpaid work could be examined alongside this, but such detailed data is not available in the census.<sup>8</sup>

Wooden (2001) has explored the polarisation of working hours amongst individuals in Australia. He reports that the percentage of employees recording more than 45 hours per week rose from 23 in 1970 to just over 28 in 1999, while those reporting less than 30 hours rose from just over 10 percent to 25 percent across the same time period.

Also in Australia, Burbidge and Sheehan (2001) have examined changes in hours worked by couples. This shows a polarisation of total hours worked. For example, in 1986, 11 percent of couples with dependent children worked under 20 hours per week but this had risen to 14 percent in 1996. At the other end of the spectrum, 5.5 percent

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<sup>7</sup> Perceptions of overwork by women can be affected by whom they compare with. Certainly many put in longer hours of paid work when they look at what they are doing relative to their own mothers.

<sup>8</sup> There are some census data available on unpaid work but it is only in broad categories of hours.

of these childrearing couples worked 90 or more hours in 1986, but this had risen to just under 9 percent in 1996.

When changes in hours worked for couples with children by the husband's qualification were investigated, it was found that this polarisation had occurred at all qualification levels. However, the growth in 90 or more hours was strongest where the husband held a bachelor or postgraduate qualifications. In contrast, the short hours (under 20 hours of joint work) growth was strongest where they had no post-school qualifications. The data also showed that long hours of paid work were more common amongst couples without children.

In a later study of working hours within families, the Australian Bureau of Statistics report that the increased participation of women in paid employment during the 1980s and 1990s contributed to an increase in the number of hours worked within many families (ABS 2003). The proportion of couple families with both partners employed increased from 40 percent in 1985 to 52 percent in 2002. However, at the broad level, the effect of these trends on average family working hours has been fairly limited. This is because the increase in women's employment, much of which is part-time, was offset to some extent by declines in male full-time employment.

The ABS shows that the average combined hours worked per week by all employed family members (including dependent and non-dependent children) increased from 1992 to the mid-1990s, and then fluctuated during the second half of the 1990s and the early 2000s. As with trends in individual working hours, these movements were broadly consistent with changes in economic conditions over this period. In June 2002, couple families without dependents spent an average of 62 hours per week in paid employment, almost 2 hours more than in 1992. For couple families with dependents, average working hours increased by about half an hour overall, to 58 hours per week in 2002. However, for sole parents, there was an overall decrease of one hour in average working hours during the period, down to 29 hours per week in 2002.

In summary, the New Zealand, Australian and US studies indicate that:

- Average hours of work have not changed much for individuals, but there has been a polarisation of hours amongst individual and couples with growth in both short hours and long hours.
- "Overwork" tends to show up stronger in couple data than in individual data
- The longer total hours of work in couple households is primarily due to increases in women's employment rates.
- Qualifications are important with regard to hours of work, both at the individual and household level.
- Age of adults and, if present, of children is also important.
- On average, women tend to work shorter hours than men. In couples, many dual-job, childrearing couples consist of a male in full-time work and the female working part time.
- Women, nevertheless, have been increasing their share of paid working hours in couples.

## Data and methods

The research uses data from the 1986, 1991, 1996 and 2001 New Zealand Censuses of Population and Dwelling. The five yearly census provides a record of labour force status and usual weekly hours of paid work with individual hours recorded (rather than being recorded in, say, five-hour blocks).<sup>9</sup>

While the census asks for usual weekly hours, for some respondents there is likely to be some confusion between actual hours worked in the previous week and usual hours. While some individuals are likely to overestimate their hours, it is also likely that some will underestimate their usual hours of paid work. Examples include those undertaking an illegal activity. It is also likely that some people include aspects of unpaid work in their totals. For some, this could be a political statement in that the respondents feel that unpaid work “counts for nothing”. In addition, some people may not have usual hours, working different hours from week to week.

There have also been some changes in coding by Statistics New Zealand over time, which have some impact on comparative data. The upper limits for 1986 and 1996 were 97 hours or more. In 1991, this figure was 98 hours. In the 2001 census, the upper limit was the full 168 hours in a week. In calculating average hours, the upper limit coded by Statistics New Zealand is used as the value of that limit. Given the very small numbers working over 97 hours per week, these changes will have had little impact on the average data over time.

In the 2001 census, the hours worked question was changed with the bracket "for pay or profit or unpaid in a family business/farm" added. This caused a much higher response to 'other hours' worked e.g. in 1996 there were 448 responses, but, in 2001, 13,578 responses. Statistics New Zealand notes that some additional non-paid work activities may be included in the 2001 data.

Finally, total work hours are used in this research. That is, hours in all jobs are added together. For example, a person might work relatively short hours in two part-time jobs but total hours could be long, or a person could have a normal full-time job and then “moonlight”, thus working very long hours.

The individual data can be linked at a household level for those living within multi-adult or single adult families. Three family/household units of analysis are used. These are couple families, sole parents and adults living on their own (i.e. single adult households). In terms of the couple families and sole parents, these family units may be living in households containing other adults and children. These other household members, even if they are related – such as a grandparent or an adult sister- are not considered in this research. In addition, the work patterns of non-related adults in a household, for example single adults in a flatting situation, are not examined in this research.

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<sup>9</sup> Although research does show at the higher end of hours of paid work respondents do tend to cluster their responses around five and ten hourly blocks of time (Callister 2000).

Age, both of adults and of dependent children, is an important variable in this research. Addressing age for individuals, and individuals living alone or in sole parent households is straightforward. Defining couples by age creates a conceptual challenge. In this study, couples are defined by the age of the female partner. In the majority of couples, the male partner will be older than the female. Census data show that the age gap has declined over time and, related to this trend, the average “gap” is smaller amongst younger than older couples. Given that the gap is larger in older couples, using the female partners age may create more problems when analysing the couples’ patterns of work in the older age groups (65+) than for younger couples, as in this older age group a significant number of the male partners will fall outside the age group of the female. In exploring the patterns of work for couples and single adults raising children, the age of youngest child is considered. Although the number of children in a family or household is likely to have an influence on working hours, this variable is not considered in order to reduce the complexity of the analysis.

While much of the report focuses on the actual distribution of hours of paid work, in some sections average hours are also calculated.<sup>10</sup> For individuals, average hours could be calculated in two ways 1) average hours for all individuals including those not working; 2) average hours for only those in paid work (and only those who recorded actual hours). The first measure shows the effect of changes in employment rates and so some of these data are included in the study. However, most data is only for those employed.

When calculating average hours of both couples and single adults (either living alone or a sole parent) only those families or individuals who were linked into paid work were included. However, this means that, for couples, the calculation does include couples where one partner is not in paid work. Except for one figure, no other attempt was made to re-calculate the averages for couples to include those couples where neither partner was in paid work.

While in some of the graphs and tables the full span of hours worked are shown, usually the data presented focuses on long and/or short hours of paid work. There are some different cut-off points used by international researchers in terms of short and long hours. For individuals in Australia, the US and the UK, 48 or more hours per week are often considered to be long hours (Callister 2004a). For this research, 50 or more hours per week is used. This is the cutoff point used by the Ministry of Social Development in its *Social Indicators Report* (Ministry of Social Development 2003) For short hours of work, under 20 hours per week of paid work is used. This used to be the cutoff point for part-time work in New Zealand before it was moved to 30 hours.

Where couples are concerned, again there are some variations in the cutoff point used in the international literature. In Australia, Burbidge and Sheehan (2001) have used 90 or more hours of combined work as an indicator of long hours, and under 20 hours of joint work as an indicator of short hours. In the US, Jacobs and Gerson (2001) have used 100 hours of combined work as an indicator of long hours. In this New Zealand research, under 30 hours of combined work is used as an indicator of short hours. For

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<sup>10</sup> Average or median hours could have been used. For some of the data, both measures were calculated and the differences were not that great. It was decided therefore to only report the average data.

long hours, a variety of measures are used. These are: 80 or more hours of combined work per week, 100 or more hours, and some data on where both work 50 or more.

Ethnicity is only considered in this study when considering average hours worked for families with young children. There are a number of reasons for not making ethnicity a key variable. First, questions about ethnicity have changed between censuses. With regard to individuals, there is the issue of how to code those respondents who record more than one ethnic group. These problems are exacerbated when couples and sole parents are considered. For example, one partner in a couple may record both Maori and European ethnic groups, while the other partner may record both Samoan and Chinese ethnicity. Such complexity makes it impossible to place families and households in single ethnic categories.

In the ethnic-based calculations of average hours of paid work for families with young children the following decisions were made. First, only 2001 data was used. Second, the analysis is restricted to families with a child under five. Third, the ethnicity is that of the youngest child.

The following ethnic groups were used based on total counts. This means there is an overlap between the groups:

- Maori
- Pacific Peoples
- Asian
- New Zealand European
- Other

However, in order to better understand ethnic differences, the following groups were also used. These are subsets of the above groups:

- Maori/New Zealand European
- Sole Maori
- Sole New Zealand European

In the analysis, some calculations are undertaken to determine changes in hours of work by both individuals and households by deciles of income. Income data in the census includes income from all sources, i.e, not only income earned from employment. In addition, it is based on yearly income, while the measure of hours of work is based on usual weekly hours which, in fact, may change over a year.

The effect of education is also examined in relation to changes in hours of work. This measures highest formal level of education.

While data was analysed for each of the years 1986, 1991, 1996 and 2001, it soon became apparent that, unlike employment rates, changes in work hours were often slow and incremental between each census. There were some instances where changes from 1986 were the strongest just to 1996. However, in most situations a comparison between 1986 and 2001 represents a broad pattern of overall change. In addition, 1986 and 2001 represent similar periods of economic growth and unemployment rates. In this time period, the 1991 census represents a low point in employment.

Given these factors, in most of the tables and graphs only 1986 and 2001 data are shown. However, some data is included for both individuals and couples for all years to illustrate timing of changes.

Occupation is an important variable in working hours with, as discussed earlier, people in agricultural, managerial, professional and plant and machinery operation occupations over-represented amongst those working long hours, and clerical and elementary workers over-represented amongst those working short hours (Callister 2000). However, in this study occupation is not considered for three reasons. First, there have been significant changes in occupational classifications between 1986 and 2001. Second, occupational changes and educational changes are very closely linked. In particular, the growth of managerial and professional occupations has been associated with a dramatic increase in tertiary education in New Zealand. Many professional jobs require specific tertiary credentials. There has also been a decline in the number of elementary occupations, thus reducing the demand for workers with no formal qualifications. Third, when couples are considered, the possible occupational combinations start to become very complex.<sup>11</sup> For example, data from the 1996 census shows that amongst prime-aged couples where both partners worked full-time, no particular occupational combination dominated (Callister 2000). The largest single combination, 6.3 percent, were couples where both partners were managers; 6.1 percent were both in agricultural occupations; 5.2 percent the male was a manager and the female a clerical worker; 5.1 percent the male a trades worker and the female a clerical worker; and 4.9 percent where both partners were professionals. Other combinations were progressively smaller.

While all age groups over 15 years are considered in this report, particular attention is given to those people under 65 years of age. A separate more detailed report on the changing hours of work for older people has been prepared for the Retirement Commission (Callister 2004b). This complements a report by Statistics New Zealand (2004) on older workers, in which some data on couples' patterns of work were included.

Finally, Statistics New Zealand staff carried out all the programming to produce the tables for this project.

## **Changes in working hours for individuals**

### **1.5 Changes in employment rates**

The four censuses between 1986 and 2001 track some major changes in the labour market. Although there had been a long-term decline in male employment rates, particularly among older age groups (Chapple 1994), there were still relatively high employment rates for men in their prime working ages at the start of this period. For

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<sup>11</sup> When both gender and occupation are considered, census data show that matching by occupation is higher than would be randomly expected. Using 1996 data, it was the highest in the armed forces, but this was a very small group. Having both partners working in agriculture was 6.1 times higher than would be expected through random sorting, both managers 4.9 times, and both professional 4.6 times. In contrast, some occupational mixes are very unlikely. For example, professional women were far less likely than random sorting would suggest to be partnered by men in plant and machinery or elementary occupations.

women, employment was on a long-term growth path at the starting period of this analysis. The subsequent restructuring of the economy post the 1986 census resulted in high levels of unemployment for both men and women in the early 1990s. However, the periods 1991 to 1996, and 1996 to 2001 were characterised by strong job growth, particularly for those in older age groups. Tables 1 and 2 show employment rates for men and women at both the start and end of the period studied. They show an overall decline in employment rates for men and an increase for women. However, when age is considered, there was a decline in employment rates for men in the 15-54 age group, but an increase in older age groups. For women, the only decline was in the 15-24 age group. Growth in employment was particularly strong for women in the 55-64 age category.

**Table 1: Employment rates for men in each age group in 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
1986	67.7	91.6	94.2	92.7	63.9	13.9	4.5	2.8	73.5
2001	57.8	82.6	85.9	85.8	71.1	23.4	8.5	4.8	68.6
Δ 86-01	-9.9	-9.0	-8.3	-6.9	7.2	9.5	4.0	2.1	-4.8

**Table 2: Employment rates for women in each age group in 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
1986	56.9	57.3	69.8	64.9	28.3	4.1	0.8	0.5	48.3
2001	52.6	65.7	72.2	76.9	52.9	11.1	3.0	1.8	55.2
Δ 86-01	-4.3	8.5	2.4	11.9	24.6	7.0	2.2	1.3	6.9

## 1.6 Average hours for those in paid work

Tables 3 and 4 show changes in average hours worked by those individuals in paid work. Overall, across society, average hours of paid work changed very little over the whole period. However, there were some significant changes (declines) in average hours worked amongst some age groups, notably those 15-24 and those 85 and older (although there have been major fluctuations in this age group).<sup>12</sup>

The strongest increase in average working hours of the employed was amongst women aged 45-54, with an increase of just over two hours per week. While the averages in the prime-working age groups do not support the idea that, across society, there has been a dramatic increase (or decrease) in average working hours, they do suggest that there has been some slight upward movement in hours worked for some groups. The total national average hours are affected by changes in both the hours worked in each age group and the numbers working in each age group. Variations in the numbers employed in each age group reflect changes in both employment rates and demographics. Demographic data (see Appendix A) show that for both men and women there have been declines in the number of people in the 15-24 age group, but major increases in the broad 35-54 age range. There has also been a growth in the

<sup>12</sup> However, it needs to be kept in mind that the numbers working in the older age group shown in Tables 1 and 2 are small.



number of older people. In addition, between 1986 and 2001, there was a strong increase in the number of women relative to men in the 25-64 age group.

**Table 3: Average hours worked per week for employed men in each age group, 1986 to 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
1986	43.0	47.1	48.3	47.2	44.1	35.3	32.1	39.1	46.0
1991	40.9	47.0	48.5	47.9	43.8	34.7	33.7	36.8	45.9
1996	37.3	47.2	48.9	48.8	44.7	31.3	26.4	29.7	45.5
2001	36.6	46.9	48.5	48.8	45.7	34.4	29.6	35.1	45.6
$\Delta$ 86-01	-6.5	-0.2	0.1	1.6	1.7	-0.9	-2.5	-4.0	-0.4

**Table 4: Average hours worked per week for employed women in each age group, 1986 to 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total
1986	38.3	34.5	33.9	34.8	32.6	26.4	27.1	36.1	35.2
1991	35.5	35.2	34.7	35.6	32.4	26.6	27.7	28.3	34.9
1996	31.0	35.3	33.9	36.1	32.2	21.9	20.1	16.9	33.8
2001	29.7	36.3	34.3	36.9	33.5	24.8	24.3	25.9	34.4
$\Delta$ 86-01	-8.6	1.8	0.4	2.2	0.9	-1.6	-2.8	-10.2	-0.8

When hours worked are calculated across the whole population (whether they were working or not), the changes in employment rates have a strong influence on average hours. Between 1986 and 2001, overall hours of work for men declined from just over 32 per week to just over 28. For women, there was a small increase from 16 and a half hours to just over 17.

### 1.7 Changes in average hours worked for employed partnered parents with young children

Parents with young children represent an important subgroup of the population. Within couples, this had previously been the lifecycle stage where fathers were most likely to work long hours and mothers, if they were employed, relatively short hours. Table 5 shows changes in average hours worked by partnered employed mothers and fathers in the main age groups for couples raising young children (sole parents are discussed in a subsequent section). While the changes in hours worked between 1986 and 2001 were not dramatic, there was some slight increase in average hours worked. These data need to be interpreted against a backdrop of changes in the number of employed partnered mothers and fathers. In 1986, there were just under 45,000 employed partnered mothers aged 25-44 with a child under five. This had increased to nearly 64,000 in 2001. In contrast, the number of employed partnered fathers aged 25-44 with a child under five declined from 116,000 to 100,000. These trends reflect changes in both the demographics and employment rates of childrearing mothers and fathers.

**Table 5: Average hours worked by employed partnered mothers and fathers aged 25-44 with a child under five, 1986 and 2001**

		1986	2001	$\Delta$ 86-01
Mothers	25-34	25.3	26.9	1.6
	35-44	26.6	27.4	0.8
Fathers	25-34	47.1	47.5	0.4
	35-44	47.5	48.2	0.7

## 1.8 A polarisation of hours for employed individuals?

### *Overall polarisation*

Averages can disguise changes in the distribution of paid work hours. Tables 6 and 7 illustrate this. Although in some situations 2001 data do not represent the point of greatest change, in almost all age groups there was a growth between 1986 and 2001 in the proportion of men working under 20 hours per week as well as an increase in the proportion working 50 or more hours (Table 6). The two exceptions were those aged 15-24 and those aged 85 and older. In both these groups there were slight declines in the proportion working long hours. In the 15-24 age group there was particularly strong growth in the proportion working short hours. The changes in the proportion working short or long hours were stronger than the changes in average hours. This emphasises the problems when only relying on average data.

**Table 6: Percentage of employed men in each age group working under 20 hours or 50 and over each week, 1986 to 2001**

		1986	1991	1996	2001	$\Delta$ 86-01
15-24	Under 20 hours	6.4	11.9	22.9	24.2	17.8
	50 hours or more	18.3	17.9	19.2	18.1	-0.2
25-34	Under 20 hours	1.9	2.2	3.9	4.0	2.1
	50 hours or more	30.9	32.1	35.5	33.8	2.9
35-44	Under 20 hours	1.6	2.0	3.5	3.3	1.6
	50 hours or more	36.5	39.0	43.0	40.6	4.1
45-54	Under 20 hours	1.9	2.3	3.7	3.4	1.5
	50 hours or more	32.3	37.1	43.6	43.0	10.7
55-64	Under 20 hours	4.3	6.5	8.3	6.6	2.3
	50 hours or more	23.9	28.0	34.0	36.2	12.3
65-74	Under 20 hours	21.1	22.8	32.2	26.0	5.0
	50 hours or more	20.0	21.0	18.9	22.1	2.2
75-84	Under 20 hours	26.9	25.3	40.9	34.3	7.4
	50 hours or more	15.6	20.7	12.9	16.6	1.0
85+	Under 20 hours	18.0	16.7	37.3	27.5	9.5
	50 hours or more	21.3	22.9	20.9	21.1	-0.2
Total	Under 20 hours	3.4	4.7	8.3	7.8	4.4
	50 hours or more	28.7	31.6	35.6	35.1	6.4

For women, there was a slightly different pattern of changes between 1986 and 2001. In some aged groups (25-34 and 45-54) there was a decline in the proportion working less than 20 hours per week. As with men, in the 15-25 age group there was very strong growth in the proportion of employed women working short hours. When Tables 6 and 7 are compared, this reflects the traditional pattern whereby women are more likely to work short hours and men long hours.

**Table 7: Percentage of employed women in each age group working under 20 hours or 50 and over each week, 1986 to 2001**

		1986	1991	1996	2001	Δ 86-01
15-24	Under 20 hours	10.2	18.0	32.4	35.7	25.5
	50 hours or more	6.1	6.5	8.1	7.4	1.2
25-34	Under 20 hours	19.8	18.8	19.8	17.4	-2.3
	50 hours or more	9.3	10.8	12.8	13.5	4.2
35-44	Under 20 hours	19.3	18.5	21.4	20.0	0.7
	50 hours or more	10.3	12.4	13.8	13.5	3.3
45-54	Under 20 hours	16.7	15.8	16.5	14.7	-2.0
	50 hours or more	10.1	12.6	16.0	17.0	6.9
55-64	Under 20 hours	21.9	24.2	25.7	22.9	0.9
	50 hours or more	8.4	10.7	12.8	14.5	6.1
65-74	Under 20 hours	40.7	42.8	54.3	46.8	6.1
	50 hours or more	9.0	11.8	8.9	10.4	1.4
75-84	Under 20 hours	41.3	39.0	60.1	50.5	9.2
	50 hours or more	11.2	12.8	8.5	12.1	0.9
85+	Under 20 hours	29.6	27.8	58.5	44.4	14.8
	50 hours or more	14.8	0.0	9.8	13.0	-1.9
Total	Under 20 hours	16.9	18.6	22.9	21.5	4.6
	50 hours or more	8.8	10.7	12.8	13.4	4.6

The timing of the changes in long hours can be seen more easily when illustrated graphically. Figure 2 shows changes in the proportion of all workers who worked 50 or more hours per week by gender and total trends. It illustrates strong overall growth from 1986 through to 1996 followed by a plateauing effect. This lack of growth between 1996 and 2001 reflects a small decline in the proportion of men working these hours, as there was slight growth in the proportion of women working such hours in this period. However, the graph also illustrates that trends in men's working hours dominate overall patterns.

**Figure 2: Proportion of total employed men and women aged 15 and older working 50 or more hours per week, 1986 to 2001**

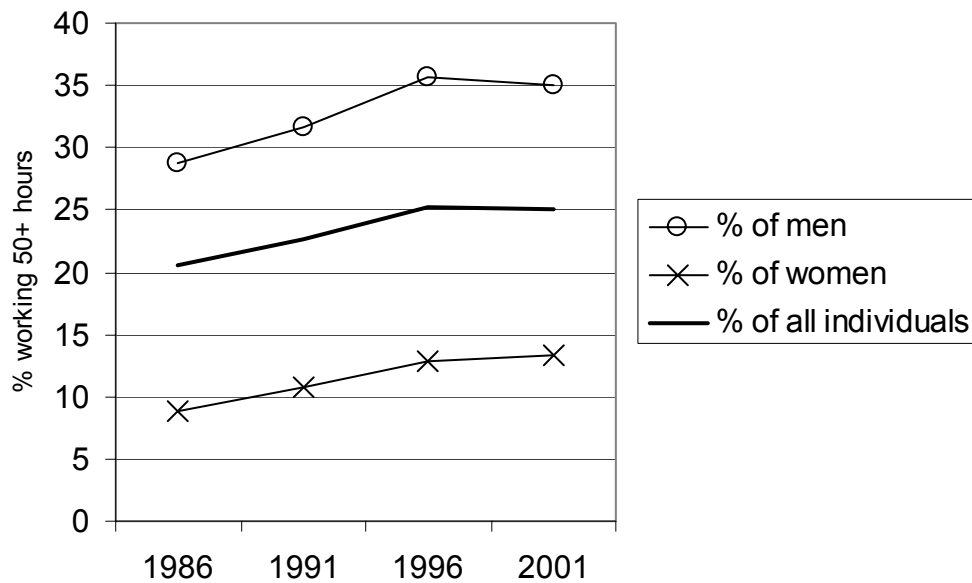
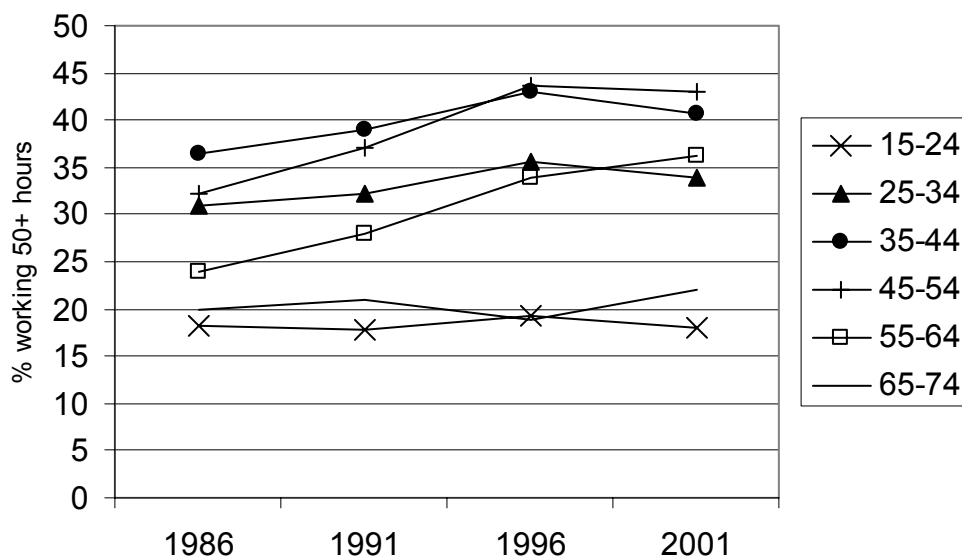


Figure 3 shows a more detailed breakdown of trends for men aged 15-74. While it shows a plateauing, or even decline, in most age groups post 1996, in the 55-64 age group there was growth in the proportion of men working long hours throughout the whole time period.

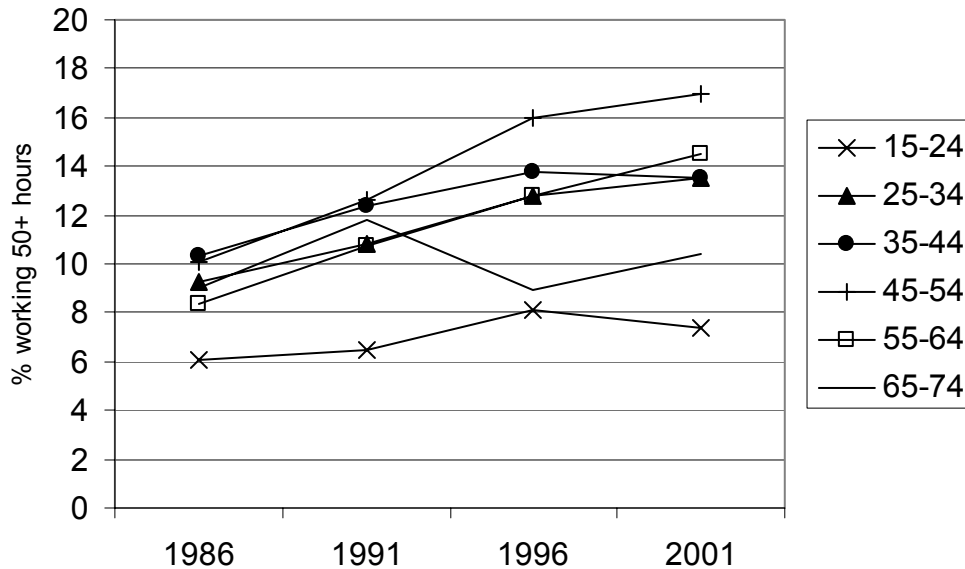
**Figure 3: Proportion of employed men working 50 or more hours per week in main age groups, 1986 to 2001**



For the proportion of women working long hours, patterns by age are more mixed (Figure 4). However, there was strong growth throughout the whole period for the 45-54 and 55-64 age groups, and a slowing of growth for those aged between 25-34.

While not tested in the research, some of these women will be among the increased proportion of women working in senior managerial and professional occupations.

**Figure 4: Proportion of employed women working 50 or more hours per week in main age groups, 1986 to 2001**



***A polarisation of hours for employed partnered mothers and fathers with children under five?***

The possible polarisation of working hours among partnered mothers and fathers with young children is of particular interest given concerns about both the impact of “overwork” on family life, and low incomes that tend to be associated with “underwork”. Tables 8 and 9 again restrict the analysis to partnered mothers and fathers aged 25-44 with a child under five years of age. While recognising that these men and women live in couples, these particular data take no account of their partners’ employment status or hours of work. The tables help assess whether there has been a polarisation of working hours of partnered mothers and fathers with young children. While for mothers the data do not support a growing polarisation of hours of work as seen amongst the wider population, they do for fathers. There emerges a strong decline in the proportion of mothers working short hours (under 20) and a slight increase, from a very low base, in the proportion of fathers working under 20 hours. When long hours (50 or more) are considered, there was a strong increase in the proportion of partnered fathers working these hours. However, the increase was primarily for those recording exactly 50 hours rather than more than 50 hours. For partnered mothers, the increase in employment rates was not equally matched by an increase in the proportion working long hours. Nevertheless, due to both demographic and employment changes in the broad 25-44 age group, there were numerically slightly more partnered mothers with a preschool child working 50 or more hours per week in 2001 than in 1986. The increase was from nearly 3,978 in 1986 to just over 5,586 in 2001.

The data also show that while there are strong gender based differences in work patterns, when short hours are considered over time mothers' patterns of paid work have been changing to become closer to that of fathers. Yet, the proportion of fathers working long hours showed a strong increase lifting the gap between mothers and fathers in this area.

**Table 8: Proportion of employed partnered mothers and fathers with a child under five working under 20 hours per week**

	1986	2001	$\Delta$ 86-01
Mothers 25-34	45.8	37.5	-8.3
35-44	41.9	36.6	-5.3
Fathers 25-34	1.6	2.8	1.2
35-44	1.4	2.7	1.3

**Table 9: Proportion of employed partnered mothers and fathers with a child under five working 50 or more hours per week**

	1986	2001	$\Delta$ 86-01
Mothers 25-34	9.0	7.9	-1.1
35-44	10.2	9.8	-0.4
Fathers 25-34	34.3	37.0	4.3
35-44	37.0	43.0	6.0

## 1.9 Changes in hours of work for employed individuals by education and income

### *Changes in hours for prime aged individuals by education and income*

In order to simplify the analysis, this section narrows the investigation to those in the prime working ages of 25-59 years. Individuals in this age group are likely to have completed formal education, and income is most likely to be obtained from paid work.

For men, Table 10 indicates little difference (and little change) in average hours by highest level of formal education. There was also little difference in the growth and proportion working long hours by education. While there was growth amongst all educational groups in the proportion working under 20 hours per week, such work is more common amongst men with no formal qualifications.



**Table 10: Average hours, short or long hours in each highest qualification group for men aged 25-59, 1986 and 2001**

Highest quals	Average hours			% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01	1986	2001	Δ 86-01
Degree or higher	38.3	38.5	0.2	1.2	3.2	2.0	22.8	26.4	3.6
Other tertiary	38.1	38.4	0.3	1.3	2.8	1.5	22.0	25.2	3.1
School	38.3	38.3	0.0	1.6	3.5	1.9	23.4	25.4	1.9
No quals	38.1	38.1	0.0	2.8	4.9	2.0	23.3	25.7	2.4

A stronger pattern in relation to education emerges for women (Table 11). The average hours for well-educated women increased the most over 1986 to 2001, while there was a slight decline in average hours for women with no qualifications. This pattern also shows up when long hours or short hours are considered. In 2001, women with no qualifications were substantially more likely to be working under 20 hours per week, while women with a degree or higher were far more likely to be working 50 or more hours per week. Given that well educated women, if living in a couple, are likely to have well-educated partners, these individual data give a first hint as to what might be happening to combined hours for couples.

**Table 11: Average hours, short and long hours in each highest qualification group for women aged 25-59, 1986 and 2001**

Highest quals	Average hours			% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01	1986	2001	Δ 86-01
Degree or higher	34.3	35.4	1.1	15.3	12.4	-2.8	10.2	14.9	4.7
Other tertiary	33.3	33.9	0.6	19.2	17.6	-1.7	7.7	10.3	2.5
School	33.2	33.5	0.2	18.7	18.1	-0.6	6.8	7.7	0.9
No qual	33.1	32.9	-0.2	19.3	21.1	1.8	6.6	7.3	0.7

Tables 12 and 13 show that for men and women, in both 1986 and 2001, there was a strong relationship between decile of personal yearly income and weekly working hours (decile 1 represents the lowest 10 percent of income, decile 10 the highest). However, this relationship became stronger between 1986 and 2001. In 2001, those working the longest hours had, on average, the highest income. This supports the findings from previous New Zealand research (e.g. Grimmond 2003). However, both tables show that there was also a small increase in the proportion of individuals working short hours who were in the upper deciles of personal income.

**Table 12: Average hours, short or long hours in each decile of income for employed men aged 25-59, 1986 and 2001**

Decile of income	Mean hours			% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01	1986	2001	Δ 86-01
1	48.6	39.6	-9.0	5.4	18.8	13.4	35.1	21.7	-13.4
2	45.1	43.7	-1.4	2.9	6.2	3.3	19.7	20.1	0.4
3	44.8	45.2	0.4	2.2	3.2	1.0	17.0	18.8	1.8
4	44.8	46.4	1.6	1.9	2.2	0.3	16.9	20.2	3.2
5	45.2	47.1	1.8	1.8	1.6	-0.2	18.4	21.7	3.3
6	45.5	47.5	1.9	1.2	1.5	0.3	19.4	22.9	3.5
7	45.6	48.2	2.6	1.3	1.3	0.0	19.8	24.9	5.1
8	46.3	49.5	3.2	0.9	1.1	0.2	22.2	29.1	6.9
9	46.9	50.3	3.4	0.7	1.0	0.3	23.8	31.9	8.1
10	50.1	53.2	3.1	0.6	1.1	0.4	33.6	42.5	8.9

**Table 13: Average hours, short or long hours in each decile of income for employed women aged 25-59, 1986 and 2001**

Decile	Mean hours			% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01	1986	2001	Δ 86-01
1	21.6	22.0	0.4	58.4	55.9	-2.5	7.7	6.7	-1.0
2	22.5	24.8	2.4	51.7	41.1	-10.6	5.4	5.6	0.2
3	26.4	28.1	1.7	30.1	28.1	-2.0	5.5	5.9	0.3
4	31.4	31.9	0.5	16.4	17.8	1.5	5.6	6.2	0.7
5	34.3	35.2	0.9	12.2	10.7	-1.5	5.8	6.4	0.6
6	36.6	37.8	1.2	8.5	7.1	-1.4	6.1	7.2	1.1
7	38.4	39.6	1.2	5.2	5.3	0.0	6.4	7.9	1.4
8	39.2	40.1	0.9	3.5	4.9	1.4	6.0	8.5	2.5
9	40.1	42.9	2.7	2.8	3.9	1.1	7.8	14.3	6.6
10	41.8	45.6	3.8	3.7	5.1	1.4	13.3	24.7	11.4

**Changes in hours by education— Employed partnered men and women with children under five**

Broad changes in hours worked by partnered mothers and fathers with a child under 5 were presented in Tables 5, 8 and 9. Tables 14 and 15 explore changes in working hours by level of highest education. Age is considered also in this analysis by restricting the age of parents to the 25-34 age range (data showing the number of parents by education level in the 25-34 age group can be found in Appendix A).<sup>13</sup> Underlying the changes in hours are strong shifts in the proportion of qualified working parents. For example, in 1986, 7.5 percent of partnered working mothers aged 25-34 with a child under five had a degree or higher qualification. By 2001, this had doubled to 15.3 percent. At the other extreme, the proportion of working mothers with no formal qualification more than halved from 25 percent to 10.8 percent.

<sup>13</sup> Data for parents aged 35-44 are available from the author.

Table 14 shows that, in 2001, the group of partnered fathers most likely to work short hours were those with no formal qualifications. In contrast, the fathers most likely to work long hours were those with degrees or higher educational qualifications. When a more detailed analysis was carried out, it was found that many of the well-educated fathers recorded exactly 50 hours of paid work, and it was poorly-educated fathers who were slightly more likely to work more than 50 hours.

**Table 14: Changes in hours of partnered employed fathers aged 25-34 with a child under five in each highest level of education group, 1986 and 2001**

Highest quals	% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01
Degree or higher	0.9	2.5	1.6	36.3	40.2	3.9
Other tertiary	0.9	2.1	1.2	34.3	38.8	4.5
School	1.4	2.8	1.4	36.2	38.0	1.8
No qual	2.9	4.1	1.2	32.0	38.5	6.5

The changes by education were also strong for employed partnered mothers (Table 15) While educated mothers (any qualification) were the most likely to be working short hours in 1986, the least likely to work short hours in 2001 were mothers with degrees or higher qualifications. This was also the only group of mothers where the proportion working 50 or more hours per week increased. Due to declines in the proportion working long hours in other educational groups, well-educated mothers were, in 2001, the most likely to work long hours. Yet, overall, regardless of qualifications, few partnered mothers with a child under five worked long hours.

**Table 15: Changes in hours of partnered employed mothers aged 25-34 with a child under five in each highest level of education group, 1986 and 2001**

Highest quals	% under 20 hours per week			% 50 or more hours per week		
	1986	2001	Δ 86-01	1986	2001	Δ 86-01
Degree or higher	47.7	33.7	-14.0	8.8	11.5	2.7
Other tertiary	49.6	39.1	-10.5	9.2	7.7	-1.5
School	46.3	37.6	-8.7	9.7	7.0	-2.7
No qual	39.5	38.1	-1.4	7.9	7.7	-0.2

The trends for those older parents with a child under five were broadly similar. However, in this older age group a slightly higher proportion of both mothers and fathers were likely to work longer hours. There are many possible explanations for this. One contributing factor is that workers in this age group will be more likely to be in senior positions in workplaces and this may result in an increase in the proportion working longer hours.

## 1.10 Changes in hours of work for employed single parents

A number of studies have identified increasing employment rates for sole parents in New Zealand (e.g. Goodger 2001, Singley and Callister 2004). These data also show that employment rates for sole fathers (a numerically much smaller group than sole mothers) are much higher than for sole mothers. In addition, the data show that employment rates for sole parents are much lower than for partnered parents.

Table 16 shows the percentage point change in the proportion of male single parents working four main blocks of weekly hours of paid work. Like trends for total individual adults in these age groups, the table shows some polarisation of hours with an increasing proportion working either short hours or long hours.

**Table 16: Percentage point change in hours of work for employed male single parents with a child under five in main age groups, 1986 to 2001**

	15-24	25-34	35-44	45-54
<20	7.6	4.0	5.3	7.7
20<40	1.9	-0.5	-6.6	2.0
40<50	-13.3	-5.2	-4.5	-13.8
50+	3.8	1.6	5.7	4.1

Table 17 shows the actual proportion of sole fathers working particular groups of hours in 2001. It shows that the largest proportion of sole fathers with a preschool child still worked within the standard 40 to 49 hour group. However, the proportion working either short or long hours is still quite significant. Older fathers were more likely to work long hours.

**Table 17: Proportion of employed sole fathers with a child under 5 years working in each group of hours in main age groups, 2001 data only**

	15-24	25-34	35-44	45-54
<20	11.5	8.3	8.6	9.4
20<40	11.5	10.9	9.9	14.1
40<50	59.8	53.9	50.5	50.0
50+	17.2	26.9	31.0	26.6
Total	100.0	100.0	100.0	100.0

Table 18 shows the percentage point change between 1986 and 2001 for female single parents with a preschool child. Again, there is the reduction in the number working between 40 and 50 hours. The strongest percentage point growth was amongst those working under 20 hours, particularly amongst the younger mothers. This is in line with general trends in this age group.

**Table 18: Percentage point change in hours of work for employed female single parents with a child under five in main age groups, 1986 to 2001**

	15-24	25-34	35-44	45-54
<20	20.9	9.5	9.4	13.4
20<40	2.3	1.1	5.6	7.5
40<50	-23.6	-9.9	-17.3	-22.3
50+	0.4	-0.6	2.3	1.5

Table 19 shows that hours worked by sole mothers are also influenced by the age of the mother. This will, in part, be influenced by the age of the child, with more children nearer to being five years old in older age groups of mothers. In addition, in 2001 far more sole mothers worked under 20 hours per week than did fathers.

**Table 19: Proportion of employed sole mothers with a child under 5 years working in each group of hours in main age groups, 2001 data only**

	15-24	25-34	35-44	45-54
<20	46.9	38.7	34.8	28.1
20<40	29.4	30.9	33.1	30.2
40<50	19.7	24.3	22.8	33.3
50+	3.9	6.1	9.3	8.3
Total	100.0	100.0	100.0	100.0

As discussed earlier, there are major methodological challenges in defining the ethnicity of a family. Therefore, these brief comments are based on the ethnicity of the child. The data are based on total counts, so the ethnic groups overlap.

The data on sole parents and ethnicity suggest that, on average, mothers of Asian children work the longest hours per week at 32 and mothers of European children the lowest at 25. The full table of ethnic data can be found in Appendix D, which also has data for the main two ethnic groups, such as Maori/European.

### **1.11 Changes in hours for employed single adult households**

In recent decades there has been strong growth in the proportion of people living on their own. Until the mid-50s age group there are more men than women living in single adult households, but this then reverses. Given the growing size of this household arrangement, changes in hours of work are important not only for this group but for overall trends in working time.

Table 20 shows percentage point changes in hours worked by male single adult households. Again, in most age groups, there has been a reduction in the proportion working “standard” hours. In the broad 15 to 64 age range, the strongest growth was in those working 50 or more hours per week.

**Table 20: Percentage point change in hours of work for employed male single adult households in each age group, 1986 to 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84
<20	4.7	1.7	1.7	2.6	3.5	5.8	8.0
20<40	0.3	-3.7	-2.8	-0.8	-0.5	-2.9	3.2
40<50	-13.0	-2.6	-2.9	-12.1	-13.4	-1.4	-8.6
50+	8.0	4.7	4.0	10.3	10.5	-1.5	-2.6

Table 21 shows that, despite a reduction in the proportion of single males who worked 40 to under 50 hours per week, in most age groups this was still the most popular working hour arrangement.

**Table 21: Proportion of employed male single adult households in each group of hours in each age group, 2001 data only**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84
<20	7.3	4.2	4.1	5.8	9.2	27.6	32.3
20<40	9.6	9.2	10.9	12.7	16.5	27.8	32.3
40<50	47.1	51.3	50.8	46.8	44.0	24.5	18.6
50+	36.0	35.3	34.2	34.7	30.2	20.1	16.8

Table 22 again shows a familiar pattern, that of a reduction in the proportion of single women working “standard” hours, and some growth in the proportion working either short or long hours.

**Table 22: Percentage point change in hours of work for employed female single adult households in each age group, 1986 to 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84
<20	11.5	3.9	4.1	4.3	4.3	5.7	3.5
20<40	2.9	-7.1	-7.2	-5.4	-5.3	-3.9	-3.1
40<50	-18.5	-3.0	-5.0	-6.6	-5.4	-3.3	-1.8
50+	4.1	6.2	8.1	7.7	6.5	1.5	1.4

Like the single men, despite some shift away from standard hours, for single women in the younger age groups the 40 to under 50 hours per week category is still the most common working hour arrangement. However, in most age groups a significant proportion of single women work long hours.

**Table 23: Proportion of employed female single adult households in each group of hours in each age group, 2001 data only**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84
<20	14.8	6.5	7.4	11.2	21.7	51.4	58.0
20<40	23.7	19.1	22.7	28.7	32.8	29.4	24.1
40<50	47.0	54.7	49.3	41.9	32.1	11.9	10.3
50+	14.5	19.7	20.6	18.2	13.5	7.3	7.5

## Changes in hours of work for employed couples

### 1.12 Changes in employment rates for couples

Using HLFS data from a starting point of 1986, Singley and Callister (2004) identified a growth in work-poor, prime-working-aged couples from 1986 through to 1993. There was then a decline through to 2002, arriving back to near the starting point level. When using census data for just 1986 and 2001, the peak of non-employment for prime working aged couples is therefore removed. In addition, the following analysis extends the age range of couples. As discussed earlier in the paper, the age groups used are the age of the female partner. Table 24 shows that in the age range 15-54 there was a decline in the proportion of couples where one or both worked (that is an increase in the proportion of work-poor couples), but an increase in such couples in the 55-84 age groups (that is a decline in work-poor couples). The increase was particularly strong in the 55-64 age group. The increase in the proportion of couples where at least one partner works in the older age groups reflects increasing employment rates for individual older men and women. However, overall, the census data support the HLFS data in that when all age groups are combined there was little change in employment rates for couples between 1986 and 2001. The changes in hours worked by employed couples in each age group need to be viewed against these changing employment rates.

**Table 24: Changes in employment rates for couples (one or both employed) by age of couple, 1986 to 2001.**

Age of Female	1986	2001
15-24	95.4	87.5
25-34	97.5	93.6
35-44	98.0	94.4
45-54	93.1	92.6
55-64	54.7	69.5
65-74	14.8	21.0
75-84	5.1	6.5
85 and Over	7.0	4.2
Total	81.7	80.1

### 1.13 Overall changes in total working hours for employed couples

#### *Average hours*

Table 25 shows changes in total average hours worked by couples in 1986 through to 2001. Included are average hours for 1991 and 1996. These additional data show that in most age groups there was not a marked variation in the trend in the intermediate years. Table 25 shows that average combined hours worked for couples in the broad 25-84 age range increased, with the strongest growth in couples where the female partner was aged 25-34, 45-54, or 55-64 years.

As with changes for individuals, the changes in overall total average hours worked for couples reflect changes both in employment rates in each age group for men and women and in underlying demographics. However, for couples there are two important aspects to the demographic change. The first is simply the numbers.

Between 1986 and 2001 there was a major decline in the number of couples aged 15-34, but increases in all the other age groups (see Appendix A). The strongest growth was in the 45-54 age group, followed by the 35-44 age group. In 2001 these two were also the largest groups numerically. As shown in Table 25, these were the two groups to work the longest average hours, so demographic change has played a strong role in lifting the overall national average hours worked by couples by 4.6 hours.

**Table 25: Average combined hours worked per week for couples with at least one partner in paid work in couple age group, 1986 to 2001**

Age of female	1986	1991	1996	2001	Δ 86-01
15-24	69.7	69.6	70.8	68.7	-1.0
25-34	64.7	66.1	69.2	70.4	5.7
35-44	70.5	71.4	72.1	72.4	1.9
45-54	67.5	69.3	73.1	76.0	8.6
55-64	52.7	53.0	56.5	62.1	9.4
65-74	37.2	38.1	33.6	38.9	1.8
75-84	33.7	36.2	29.8	34.1	0.4
85 and over	54.8	45.3	32.4	34.5	-20.4
Total	65.8	67.1	69.1	70.4	4.6

While international comparisons are fraught with methodological problems, New Zealand appears to be at the high end of combined average hours worked for prime-aged couples (see Appendix G).

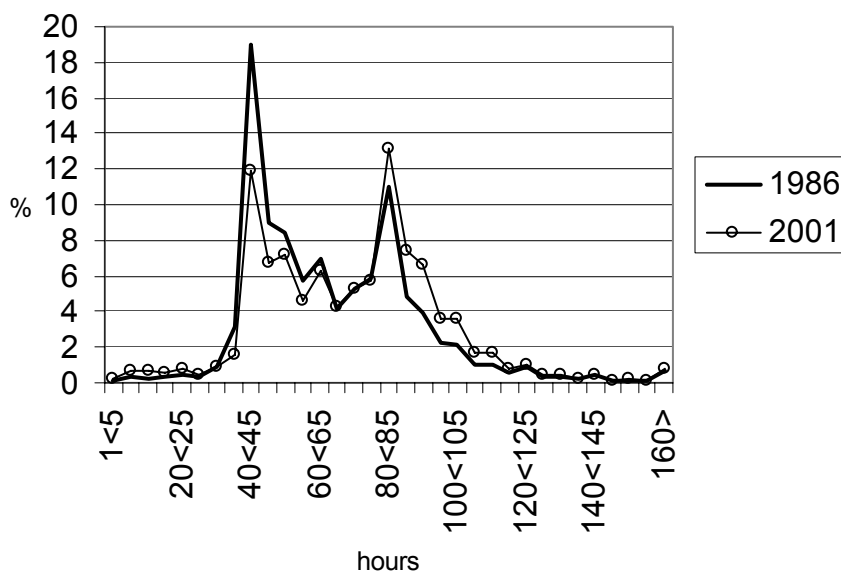
#### *Changing distribution of total hours worked*

The changing distribution of hours of work can be illustrated in graphs that show changes in each age group. As an illustration, the following two graphs (Figures 5 & 6) show changes amongst younger prime age workers (female aged 25-34) and amongst older workers (female aged 65-74). Graphs for other age groups can be found in Appendix C. Key trends include:

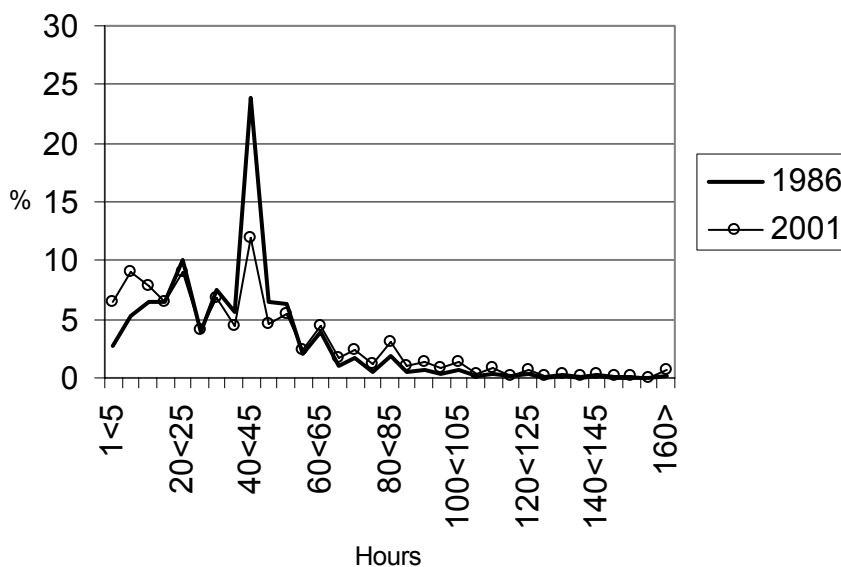


- In all age groups, there was a decline in the 40-45 hour peak of combined hours. This primarily reflects the decline in couples where there was just one full-time worker.
- In the 25-24, and 55 through to 84 age groups there has been an increase in the 80-85 hour peak. This mainly reflected the increasing numbers of couples in these age groups where both worked 40 hour weeks.
- In the groups within the broad 25-54 age span, the 80-85 hours of combined work peak in 2001 was larger than the 40-45 hour peak.

**Figure 5: Distribution of total paid hours worked per week for employed couples aged 25-34, 1986 and 2001**



**Figure 6: Distribution of total paid hours worked per week for employed couples aged 65-74, 1986 and 2001**



*A possible polarisation of combined hours within employed couples?*

Table 26 shows the polarisation of hours that took place for individuals is also evident amongst couples. In all age groups there was growth in the proportion of couples where combined work hours were under 30 per week and also for those whose hours were 100 or more per week. There was some growth in all age groups where both partners worked 50 or more hours per week. This latter finding is not surprising given the overall increase in the proportion of people in most age groups working 50 or more hours per week.

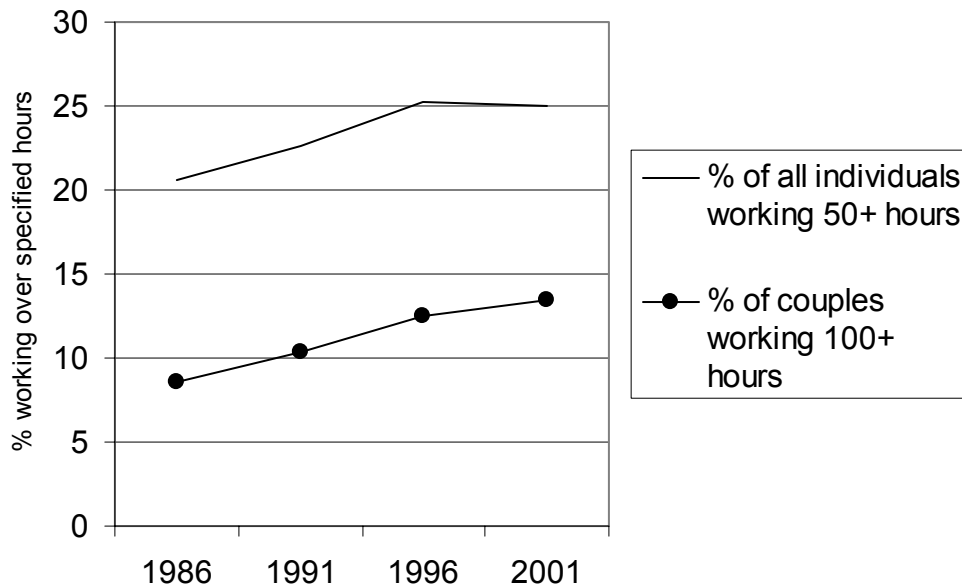
**Table 26: Proportion of employed couples with short or long combined hours of paid work in each couple age group, 1986 and 2001**

		% under 30 hours	% 80 hours or more	% 100 or more	% both 40 or more	% both 50 hours or more
15-24	1986	1.8	46.0	7.9	37.2	2.4
	2001	6.1	45.4	9.2	37.0	2.9
	Δ 86-01	4.3	-0.6	1.3	-0.2	0.5
25-34	1986	1.8	29.9	7.9	21.1	3.6
	2001	3.3	42.4	11.6	33.0	5.1
	Δ 86-01	1.5	12.5	3.8	11.9	1.4
35-44	1986	1.4	36.5	10.9	25.2	5.4
	2001	3.2	41.0	13.8	28.2	6.5
	Δ 86-01	1.8	4.4	2.9	3.0	1.1
45-54	1986	3.0	33.6	9.1	24.7	5.0
	2001	4.1	48.3	17.7	35.0	9.3
	Δ 86-01	1.2	14.6	8.5	10.3	4.3
55-64	1986	12.4	16.9	4.6	12.6	2.7
	2001	13.7	30.1	11.7	21.1	6.5
	Δ 86-01	1.3	13.2	7.1	8.5	3.8
65-74	1986	35.1	5.7	2.2	3.7	1.4
	2001	42.9	11.6	5.4	7.6	3.2
	Δ 86-01	7.8	5.9	3.3	3.9	1.8

Figure 7 focuses on long hours of work and shows the time of changes over the whole period for both the total group of individuals aged 15 and over and couples in this broad age group. It illustrates that while, for individuals, there was little change in the proportion working long hours between 1996 and 2001, the proportion of couples

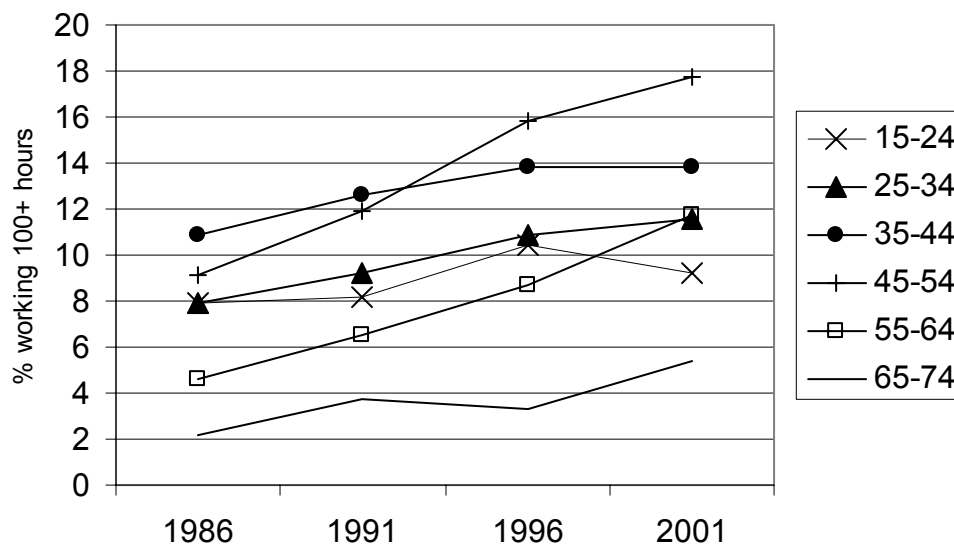
working combined long hours of work (100 or more hours per week) continued to increase. Figure 7 shows a growth in combined hours of couples between each census.

**Figure 7: Proportion of total employed individuals aged 15 and over working 50 or more hours per week, and proportion of total employed couples working 100 or more hours of combined work, 1986 to 2001**



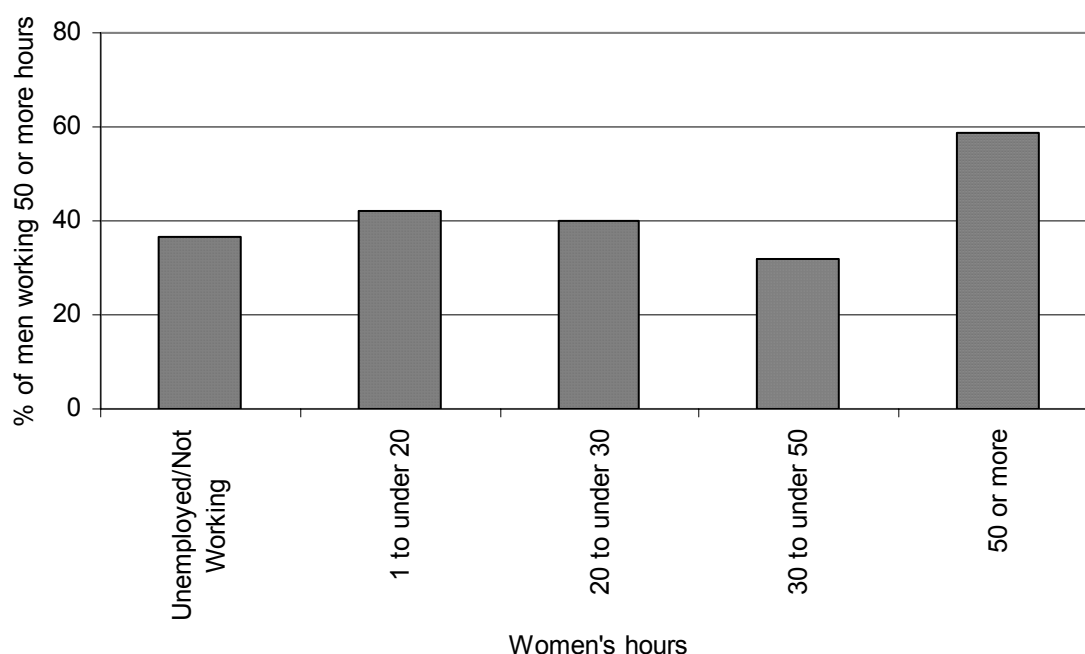
When long hours and the age of the female partner is considered, Figure 8 shows that growth in combined working hours for couples took place in each five year period between censuses for those aged 25-34, 45-54 and 55-64 years. However, there was little growth in the 35-44 age group and some decline in the 25-24 age group.

**Figure 8: Proportion of employed couples working 100 or more hours of combined work per week by age of female partner, 1986 to 2001**

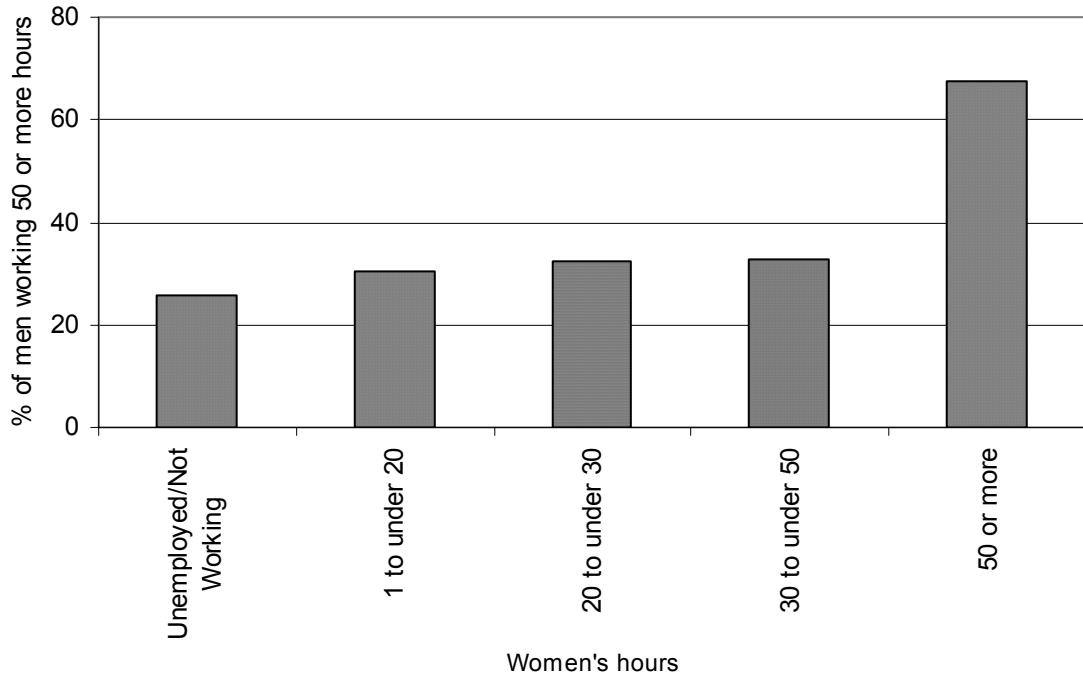


Although there are relatively few couples where both work 50 or more hours per week, when women's hours were considered, in 2001 men were more likely to work long hours if their partner also worked these hours. This is illustrated by Figures 9 and 10. These show couples where the woman was aged 25-34 or 55-64. The data suggest that while some couples will be working hours that complement each other (that is one works short hours, one works long) others tend to work similar hours. In terms of non-work, New Zealand research has already shown that, in couples, if the male partner is not in paid work then there is a greater chance his partner will also not be in work (Callister 2000). This current research shows that in terms of long hours if the female works 50 or more hours per week, there is a greater chance the male will also work these long hours. Yet, when a comparison is made with 1986, it was found that a higher proportion of men worked 50 or more hours per week when their female partners worked 50 or more hours. In both age groups, the figure was around 70 percent. While the proportion of couples where both work 50 or more hours a week has increased, so too has the diversity of working hours amongst those partners of men working 50 or more hours per week. Again, this reflects an increase in the employment of partnered women in this age group with most of them working shorter than 50 hours per week.

**Figure 9: Percentage of men in employed couples aged 25-34 working 50 or more hours per week in each working hour category of their partner, 2001**

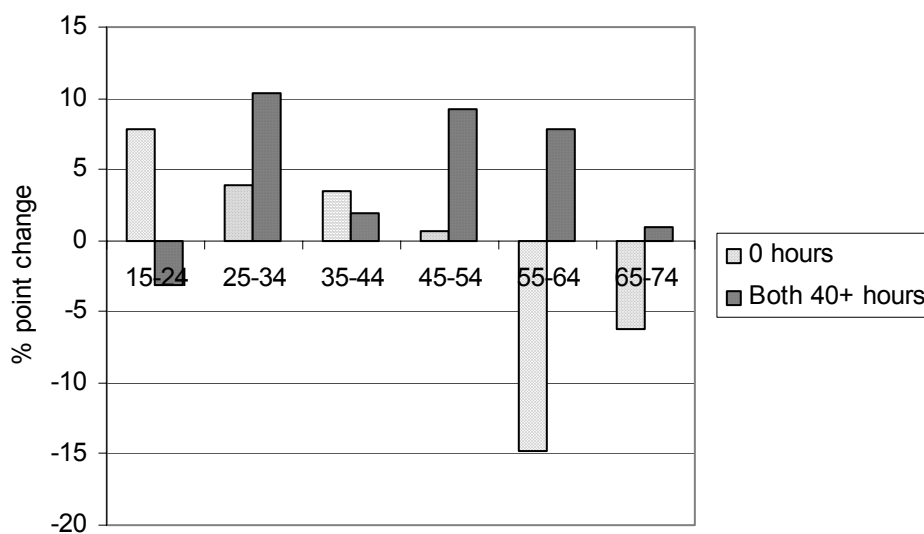


**Figure 10: Percentage of men in employed couples aged 55-64 working 50 or more hours per week in each working hour category of their partner, 2001**



Finally, Figure 11 shows trends between 1986 and 2001 for the more extreme form of polarisation, that is the growth of “work-poor” couples (neither has jobs) and the growth of “work-rich” couples. While previous research has defined a couple as being “work-rich” if both partners are in paid work (Singley and Callister 2004), this graph uses a finer, and potentially more accurate, measure of both working 40 or more hours per week. Figure 11 shows a trend toward polarisation in the 25-54 age group, but not in other age groups. In the older age groups, there was a strong decline in the proportion of couples where neither partner was in paid work.

**Figure 11: Percentage point change in those couples not in paid work and both working 40 hours per week in each couple age group, 1986 to 2001**



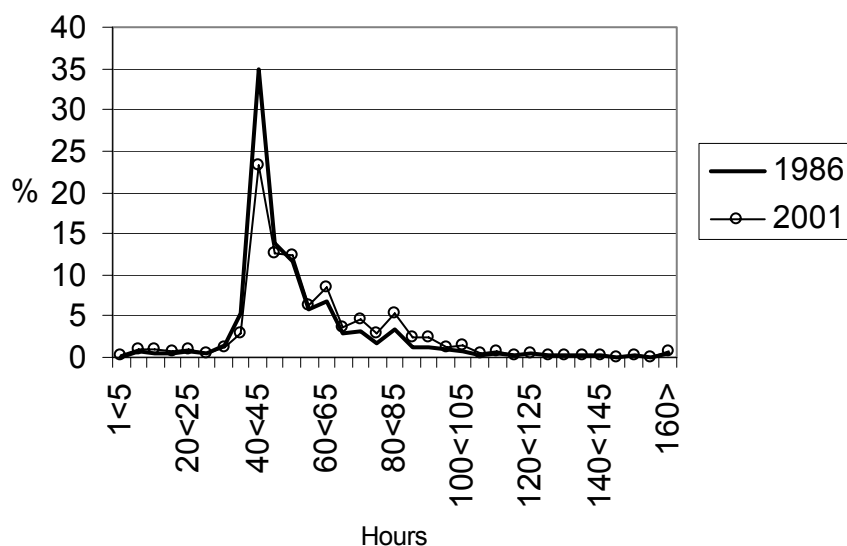
#### 1.14 Changes in work hours for employed couples with dependent children

As a first basic statistic, a comparison was made between the average working hours in 2001 for employed sole mothers and couples with a child under five. For sole mothers the average hours per week were 26.6, while the average combined hours for couples were 61.6 per week. If this couple figure is simply divided into two, that is to represent an average per person in a working couple, then it can be seen that more paid work is undertaken, on average, per person in employed couples than by employed sole mothers (30.6 average hours versus 26.6).

The following data are based around the age of the youngest dependent child and do not take into account the age of parents. Figure 12 illustrates the changing distribution of total combined hours of paid work for couples with a child under one year old. Like the distribution for prime working aged couples, there is some evidence of a slight increase in the proportion working short hours and also an increase in the proportion working longer than 40-45 hours of combined hours (i.e. mainly one partner, usually the male, in full time work). A similar pattern can be seen with older dependent children (Appendix C). In addition, as the age of the youngest child

increases, the overall distribution of hours shifts across towards longer combined hours (again see Appendix C).

**Figure 12: Distribution of total paid hours worked per week for employed couples with a child aged under 1, 1986 and 2001**



These changes in combined working hours for childrearing couples can be seen more clearly if examined in terms of a polarisation of work hours within couples. Table 27 shows the proportion of couples working a total of under 30 hours per week or a total of 80 or more hours per week by age of youngest child. Again, it demonstrates growth in both ends of the working hours' spectrum.

**Table 27: Proportion of employed childrearing couples working under 30 hours or 80 or more hours of combined work per week by age of youngest child, 1986 and 2001**

Youngest child	1986	2001	Δ 86-01
Under 1 Under 30	2.6	4.4	1.8
80+	10.4	16.8	6.4
1 to 4 Under 30	2.2	4.2	2.0
80+	16.9	25.1	8.2
5 to 15 Under 30	1.8	3.7	1.9
80+	34.5	41.0	6.5

Another way of summarising these data is to simply examine trends for couples with a child under five, but showing a greater range of working hours (Table 28). This reinforces the idea that there has been some move away from “standard” hours for couples and a growth in both long and short working hours. The strongest growth has been in both the 50 to under 80 hours and the 80 to under 100 hour groups. This reflects both an increase in the number of couples where both partners work 40 or

more hour week, and some growth in the number of couples where one works full time and one part time (but their total hours still exceed 50 hours).

**Table 28: Changes in weekly combined hours of paid work for employed couples with a child under five, 1986 to 2001**

	% in each group of hours					
	< 30	30 <40	40 < 50	50 <80	80 <100	100+
1986	2.3	5.5	40.7	36.4	10.1	5.0
2001	4.2	3.4	27.4	42.2	15.6	7.2
Δ 86-01	1.9	-2.1	-13.3	5.8	5.6	2.2

Finally, differences in the distribution of total hours worked by couples in 2001 by age and whether they have dependent children were explored (Appendix C - Figures C9 to C12). In the younger age groups of parents there is a marked difference in the distributions, with couples without children far more likely to work longer hours. This difference reduces substantially as the parents move into older age groups. This primarily reflects that the children are generally also older in these older parental age groups.

### 1.15 Average hours for employed childrearing couples by the ethnicity of the child

As discussed earlier, there are major methodological challenges in defining the ethnicity of a couple/child family. Consequently, this brief section is based on the ethnicity of the child. The data are based on total counts, so the groups overlap.<sup>14</sup>

The data show a small variation in average hours worked by couples with a child under five years of age (Table 29). Couples with an Asian child work the longest hours (as with sole mothers), but parents of European children were not far behind. Couples with a Pacific child put in the lowest average combined hours of paid work. The reasons for these differences are unclear and more detailed research would be required to unpick this. But it is likely that factors such as parental age, education, occupation and number of children will all be of importance.

**Table 29: Average hours for employed couples with a child under 5 by ethnicity of child, 2001 data**

Ethnic group of child	Average working hours
Total European	62.0
Total Māori	60.1
Total Pacific Peoples	58.2
Total Asian	62.4
Total Other	59.7

### 1.16 Changes in total hours of employed couples by highest education

<sup>14</sup> Data showing main two ethnic groups, such as Maori/European are shown in Appendix D.



In this section, a broad 25-59 age group is used. As in other sections, this is based on the female partners age. Initially, two measures of education were used. The first was based only on the female's highest level of qualifications. The second was based on both partners' qualifications but collapses some of the educational categories. In this categorisation, there are three groups: both partners have a degree or higher qualification; other combination of qualifications; and, neither partner has a qualification. Although there are some exceptions, in New Zealand in partners in couples tend to have similar levels of education (Callister 1998). Both measures produced similar results (See Appendix E) so it was decided to only present detailed data using the latter method. In interpreting these education data, it is worth noting that the vast majority of people are located in the "other combination of qualifications" category. The other categories provide a guide to the trends amongst the very well qualified and the very poorly qualified.

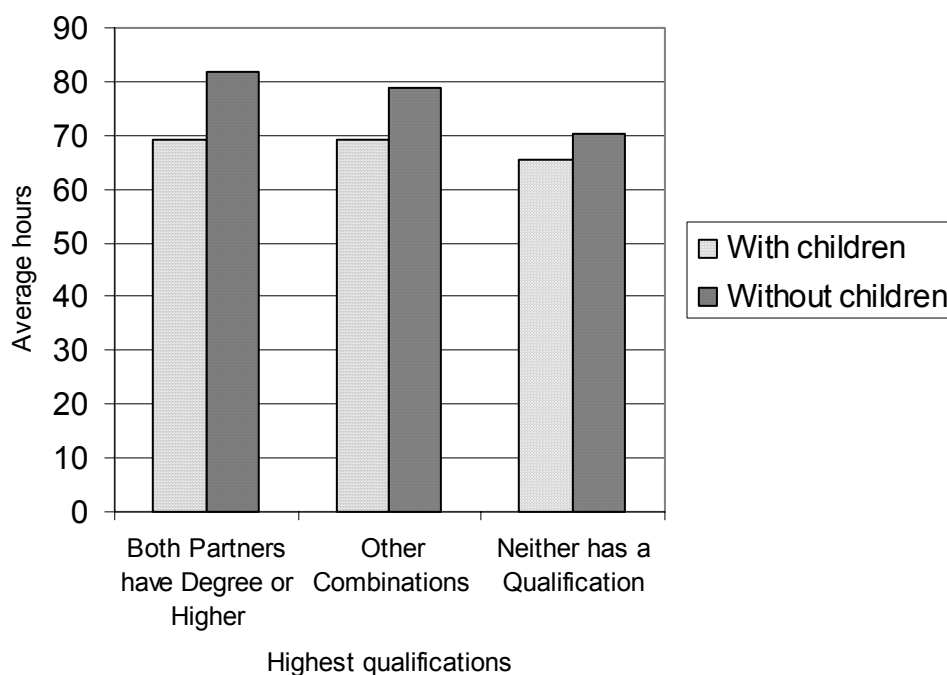
Table 30 shows average hours worked by couples by combined highest qualification in 1986 and 2001. It shows that in both 1986 and 2001 it was the well qualified couples that tended to work the longest average hours. In addition, while there was an increase in average hours worked in all educational combinations, the slowest growth was amongst couples with no formal qualifications.

**Table 30: Average hours worked per week by employed couples where the female is aged 25 to 59 years in each highest qualification category gained by both partners, 1986 and 2001**

Qualifications of Couple	1986	2001	Δ 86-01
Both Partners have Degree or Higher	68.9	74.3	5.4
Other Combination of Qualifications	67.0	73.2	6.2
Neither has a Qualification	65.9	68.3	2.4
Total	66.7	72.7	6.0

More detailed data on trends by whether a couple has dependent children are set out in Appendix E. These data show that the largest increase in average hours worked was for couples without children. In addition, the overall pattern is that having children is associated with a reduction in total hours worked by couples, but with the "gap" highest for those with higher qualifications. Yet, at the same time, well-educated couples with children work longer hours, on average, than couples with no formal qualifications. This is illustrated in Figure 13 (which shows data for 2001 only).

**Figure 13: Average weekly hours of paid work for employed couples by highest education of both partners and whether they have dependent children, Women aged 25-59, 2001**



### 1.17 Changes in total hours of couples' by income

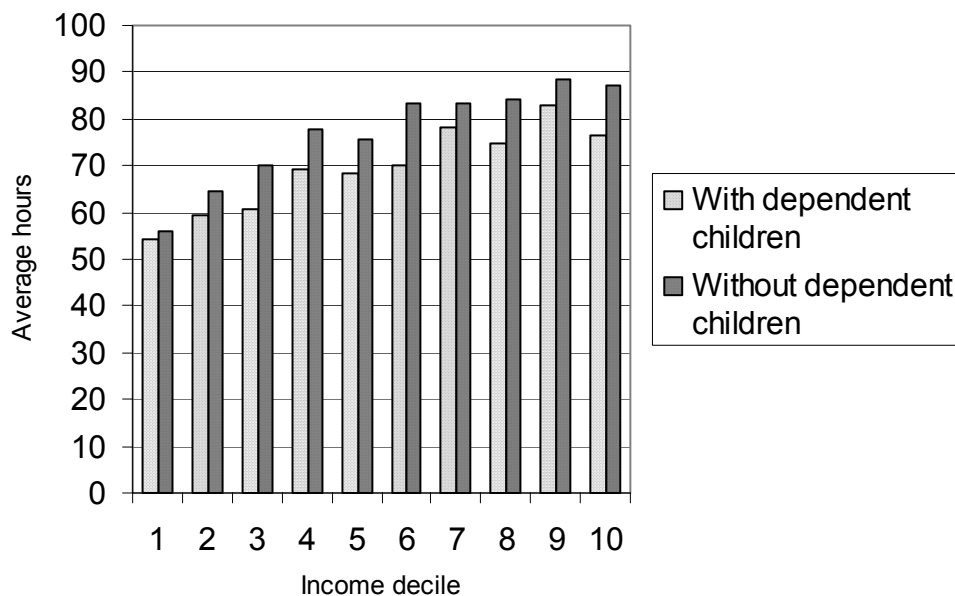
Again, in this section a broad 25-59 age group is used. Table 31 shows an overall gradient in average total hours worked by couples relative to couple income, with the longest hours put in by the couples in the highest deciles of yearly income. However, it again needs to be noted that this is yearly income from all sources (it is not a measure of weekly income from employment).

**Table 31: Average hours worked per week by employed couples where the female partner is aged 25 to 59 years in each income decile of couple, 1986 and 2001**

Income Decile	1986	2001	Δ 86-01
1	61.4	55.2	-6.1
2	55.6	61.0	5.4
3	65.0	67.1	2.1
4	58.2	70.0	11.8
5	65.8	70.7	4.9
6	70.2	78.6	8.4
7	68.2	81.3	13.1
8	75.9	79.2	3.2
9	76.3	85.9	9.6
10	78.5	81.4	2.9
Total	67.5	73.0	5.5

More detailed data for couples with and without children for both 1986 and 2001 are shown in Appendix E. Figure 14 shows 2001 data only and illustrates both the income gradient and the effect that having children has on couples' working hours. In a similar, and no doubt linked, pattern to that of education, the gap between average hours worked by high-income couples with and without children was relatively large compared with low-income couples, but overall the combined hours of paid work for the high income couples were, on average, longer.

**Figure 14: Average total hours of employed couples in each decile of income where the female partner is aged 25-59, With and without dependent children, 2001**



### 1.18 Changes in hours of employed couples by education– Couples with children under five

Tables 32 and 33 limit changes in hours for couples by education to those in the 25-34 age group who have a child under five years of age (data for those aged 35-44 can be found in Appendix F). This is a prime childbearing age for women and having a child under five is associated with major reductions in mothers' working hours. Again, it needs to be kept in mind that there have been major educational changes taking place amongst childrearing couples, with a strong increase in the proportion of well-educated couples (Appendix A). Therefore, the data for this group are a strong indicator of the future trends for childrearing couples.

Both tables show that the biggest change has taken place amongst well-educated couples. While there was little difference in average working hours in 1986, by 2001 average hours in well-educated couples were the longest. In terms of longer hours (Table 33), in 1986 poorly-educated couples had a slightly higher proportion working 80 or more hours of combined work. By 2001, there was little difference by education level.

It also needs to be kept in mind that, in contrast to the data focussing just on partnered parents (but not their partners' hours of work) that showed that the unqualified fathers were most likely to put in the very longest hours of work (more than 50 hours per week), when couples are considered it is the well-educated couples that are more likely to put in the longest hours. This suggests that a small group of poorly-educated, partnered fathers may be working long hours because their partner is less likely to be employed or, if employed, works low hours of paid work.

**Table 32: Average hours worked per week by employed couples in each highest qualification gained group where the female is aged 25 to 34 years with a child aged less than 5 years, 1986 and 2001**

	1986	2001	Δ 86-01
Both partners have degree or higher	56.5	60.9	4.5
Other combination of qualifications	56.6	61.9	5.3
Neither has a qualification	55.2	57.1	1.9
Total	56.3	61.5	5.2

**Table 33: Proportion of employed couples working 80 or more hours of combined work per week in each highest qualification gained group where the female is aged 25 to 34 years with a child aged less than 5 years, 1986 and 2001**

	1986	2001	Δ 86-01
Both partners have degree or higher	14.0	22.5	8.5
Other combination of qualifications	13.9	22.2	8.3
Neither has a qualification	16.7	21.1	4.4
Total	14.4	22.2	7.8

Table 34 examines how couples by education level are distributed across a variety of working hour categories. It confirms that, in 2001, well-educated couples were over-represented (but not by that much) in the long combined hours of paid work category (100+), while poorly educated couples were over represented in the short working hours category (under 45 hours).

**Table 34: Proportion of employed couples working various groups of combined hours of work per week in each highest qualification gained group where the female is aged 25 to 34 years with a child aged less than 5 years, 2001**

Qualifications of Couple	<45 Hours	45 - 79 Hours	80 - 99 Hours	100+ Hours	Total
Both Partners have Degree or Higher	9.0	9.1	9.2	9.4	9.1
Other Combination of Qualifications	80.8	85.6	84.4	84.3	84.2
Neither has a Qualification	10.1	5.3	6.4	6.3	6.7
Total	100.0	100.0	100.0	100.0	100.0

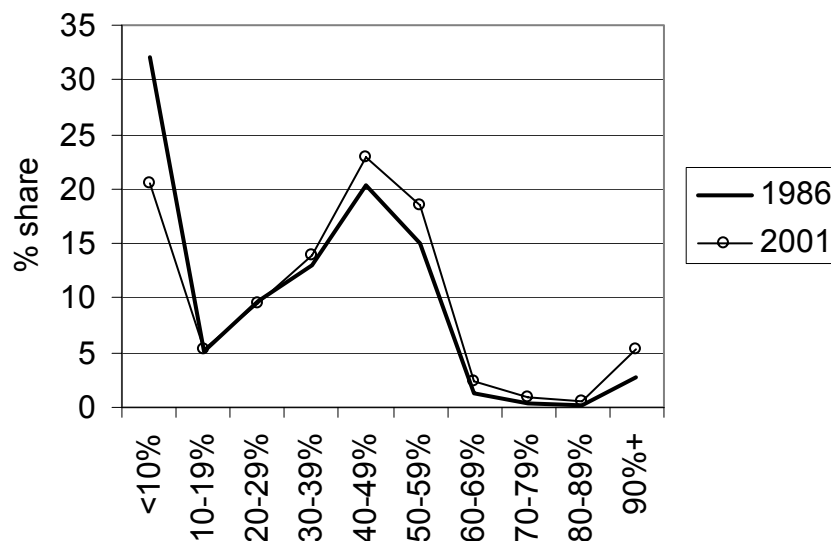
A similar pattern shows up in the 35 to 44 age group for couples where neither has a qualification, but when both partners have a degree or higher a slightly higher proportion work 45-79 hours than either short or long hours.

All the data shown in the last couple of sections would indicate that while a group of poorly-educated couples may be forced to work long hours due to economic necessity, the largest increase in hours appears to have come about within higher-educated, childrearing couples.

### Changes in women’s share of total hours worked in employed couples

The increasing employment of partnered women, as well as the higher proportion working long hours, was likely to lead to women working a higher proportion of hours within couples. This is confirmed by the data. Figure 15 shows an overall shift in the distribution worked by women relative to men in couples where the female partner is aged 25-59. The largest change between 1986 and 2001 was in the group where women contributed between 0 and under 10 percent of the hours worked. These data include those couples where one partner, usually the woman, is not in paid work.

**Figure 15: Female partners’ proportion of working hours in employed couples where the female is aged 25-59, 1986-2001**



A more extreme measure is where women work half or more of the hours in the couple. In 1986, just under 20 percent of women in prime-working-aged couples contributed half or more of the hours work. By 2001, this had risen to 28 percent. Table 35 also shows this by decile of couple income. It shows a strong increase in the proportion of women working half or more hours in a range of income deciles. The highest proportion of women working half or more hours in a couple was in the lowest income decline. In some of these couples (and in some other deciles) the male partner will not be employed.

**Table 35: % of employed couples in each decile of couple income where women work half or more of total hours, couples where the female partner is aged 25-59, 1986 and 2001**

Couple Income Decile	1986	2001	$\Delta$ 86-01
1	19.9	35.1	15.2
2	11.9	24.7	12.8
3	21.4	25.7	4.3
4	12.6	23.4	10.7
5	16.9	23.9	7.0
6	22.7	30.1	7.4
7	17.2	31.4	14.2
8	27.4	27.7	0.3
9	25.6	32.7	7.1
10	22.3	22.5	0.2
Total	19.8	27.7	7.9

Finally, a comparison can be made with a selection of industrialised countries in terms of the proportion of prime-working-aged couples where both partners are employed (Appendix G). This provides another guide to the share of paid work undertaken in a household. The data show that in the mid 1990s the proportion of New Zealand couples where both partners were in paid work was high compared with countries such as Canada, Germany, Italy, the Netherlands and UK, lower than Finland and Sweden, but about the same level as the US. In the period between 1996 and 2001, the share of working couples in New Zealand where both partners worked increased from 72 percent to 74 percent.

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## Appendix A

### 1.19 Demographic change

**Table A1: Number of men in each age group, 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	295,980	254,790	215,859	156,768	143,802	94,365	41,562	7,269
2001	253,743	250,206	281,181	240,483	166,020	118,626	63,543	14,517
Δ 86-01	-42,237	-4,584	65,322	83,715	22,218	24,261	21,981	7,248

**Table A2: Number of women in each age group, 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	287,013	258,282	215,604	153,918	144,183	115,638	64,758	18,519
2001	251,322	275,973	301,902	247,473	170,808	127,545	92,073	34,119
Δ 86-01	-35,691	17,691	86,298	93,555	26,625	11,907	27,315	15,600

**Table A3: Number of male single parents with a child under five in each main childrearing age group, 1986 and 2001**

	15-24	25-34	35-44	45-54
1986	414	1,107	510	315
2001	810	2,403	1,716	444
Δ 86-01	396	1,296	1,206	129

**Table A4: Number of female single parents with a child under five in each main childrearing age group, 1986 and 2001**

	15-24	25-34	35-44	45-54
1986	12,150	12,456	3,021	1,041
2001	13,032	21,996	9,885	972
Δ 86-01	882	9,540	6,864	-69

**Table A5: Number of male single adult households in each age group, 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	9,870	17,244	13,374	11,475	14,841	13,374	9,072	1,791
2001	6,117	19,986	25,518	23,373	19,113	18,141	13,287	4,038
Δ 86-01	-3,753	2,742	12,144	11,898	4,272	4,767	4,215	2,247

**Table A6: Number of female single adult households in each age group, 1986 and 2001**

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	5,535	8,250	6,642	9,480	23,193	40,572	32,127	6,450
2001	4,953	13,398	15,543	22,314	27,198	37,089	43,068	14,496
$\Delta$ 86-01	-582	5,148	8,901	12,834	4,005	-3,483	10,941	8,046

**Table A7: Number of couples in each age group, 1986 and 2001**

Age of Female	1986	2001	$\Delta$ 86-01
15-24	62,130	39,714	-22,416
25-34	185,967	158,481	-27,486
35-44	172,212	203,364	31,152
45-54	120,183	170,835	50,652
55-64	98,196	111,774	13,578
65-74	56,196	66,366	10,170
75-84	15,309	26,529	11,220
85 and Over	1,047	2,556	1,509
Total	711,237	779,616	68,379

**Table A8: Number and percentage of employed couples by highest qualification gained and female is aged 25 to 34 years with a child aged less than 5 years, 1986 and 2001**

	% in each group	
	1986	2001
Both Partners have Degree or Higher	5.2	9.1
Other Combination of Qualifications	75.7	84.2
Neither has a Qualification	19.1	6.7
Total	100.0	100.0
N=	59,478	48,339

**Table A9: Number and percentage of employed couples by highest qualification gained and female is aged 35 to 44 years with a child aged less than 5 years, 1986 and 2001**

	% in each group	
	1986	2001
Both Partners have Degree or Higher	9.7	14.8
Other Combination of Qualifications	68.0	79.6
Neither has a Qualification	22.2	5.6
Total	100.0	100.0
N=	14,016	33,921

## Appendix B

### 1.20 Changes in employment rates

**Table B1: Changes in % of male single parents employed with a child under five, 1986 to 2001**

	15-24	25-34	35-44	45-54
1986	37.7	45.0	53.5	55.2
2001	44.4	55.6	61.0	53.4
Δ 86-01	6.7	10.6	7.5	-1.8

**Table B2: Changes in % of female single parents employed with a child under five, 1986 to 2001**

	15-24	25-34	35-44	45-54
1986	9.1	15.3	22.7	25.4
2001	21.0	31.4	37.4	36.1
Δ 86-01	11.9	16.1	14.7	10.7

**Table B3: Employment rates: Single male adult households, 1986 and 2001**

%	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	80.3	87.9	87.8	83.6	52.3	10.7	3.4	1.7
2001	70.5	78.2	76.7	72.4	54.0	15.1	5.3	2.6
Δ 86-01	-9.8	-9.7	-11.1	-11.2	1.7	4.3	1.9	0.9

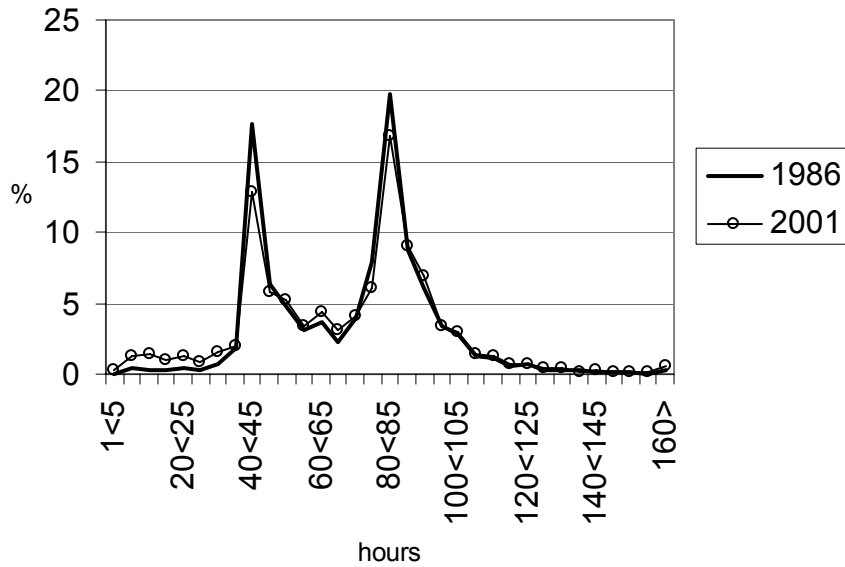
**Table B4: Employment rates: Single female adult households, 1986 and 2001**

%	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
1986	73.9	85.2	83.3	70.2	29.1	4.0	0.6	0.2
2001	63.1	77.0	75.1	72.7	50.9	7.7	1.2	0.5
Δ 86-01	-10.8	-8.2	-8.2	2.5	21.7	3.7	0.6	0.3

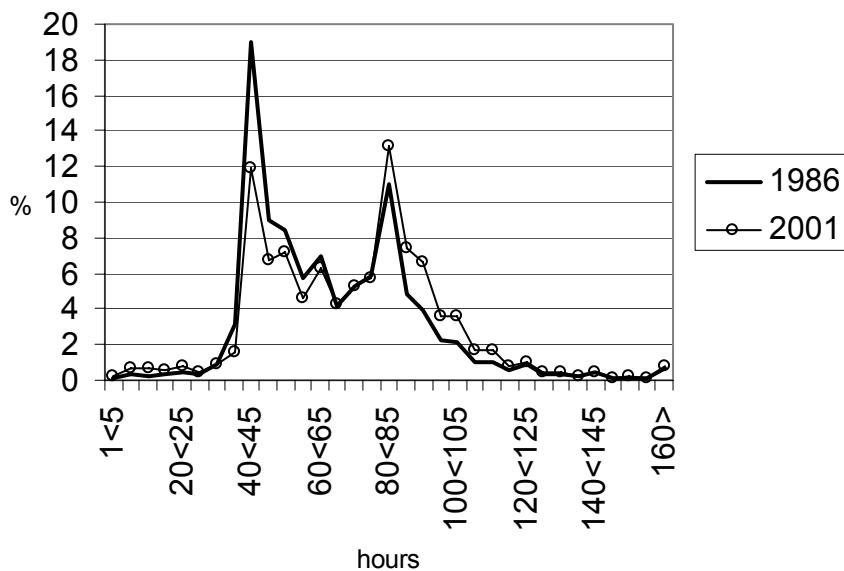
## Appendix C

### 1.21 Distribution of combined hours of work: Total employed couples

**Figure C1: Distribution of total paid hours worked per week for employed couples aged 15-24, 1986 and 2001**

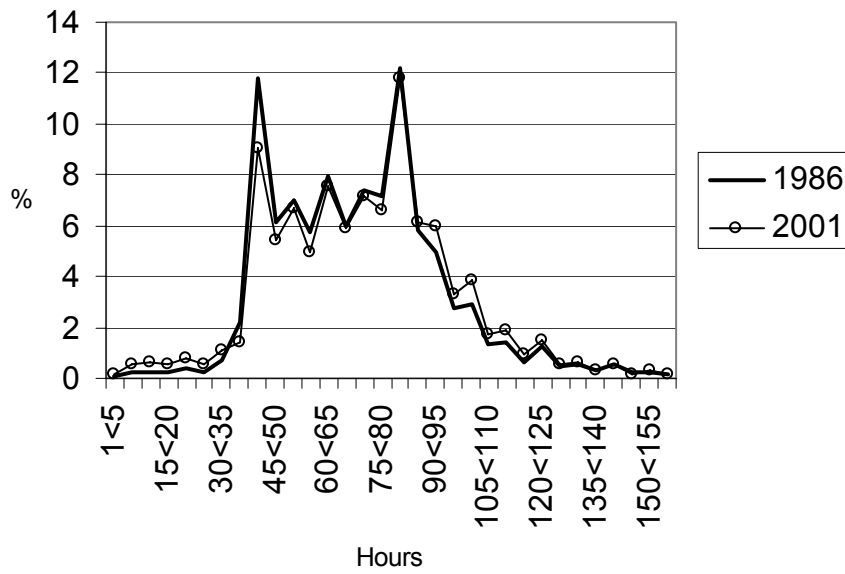


**Figure C2: Distribution of total paid hours worked per week for employed couples aged 25-34, 1986 and 2001**

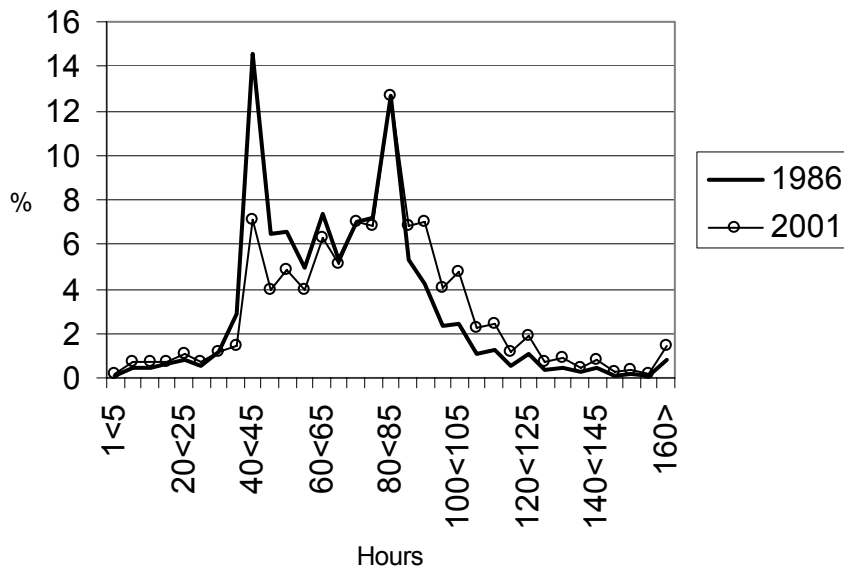




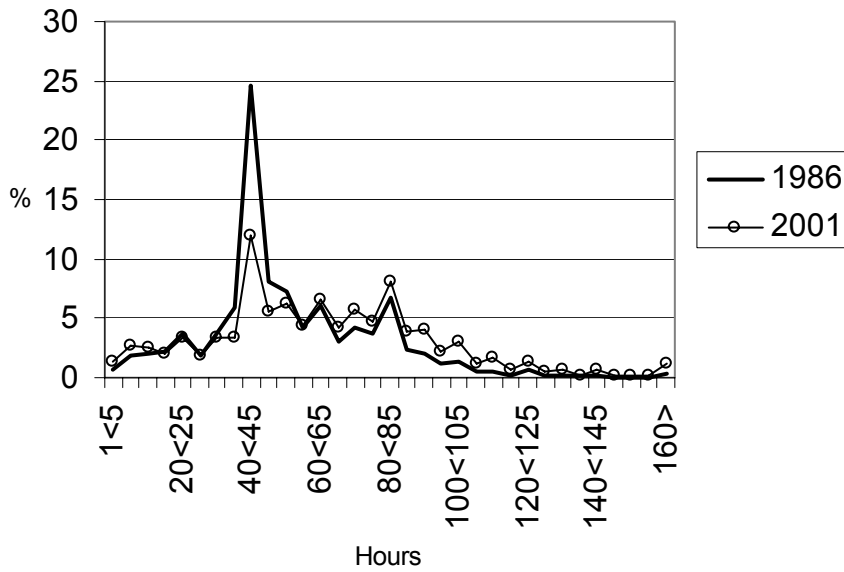
**Figure C3: Distribution of total paid hours worked per week for employed couples aged 35-44, 1986 and 2001**



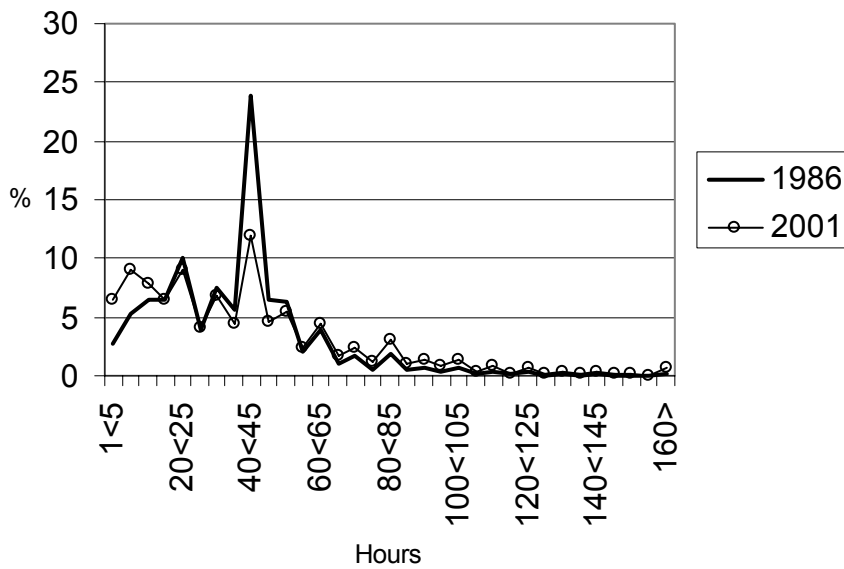
**Figure C4: Distribution of total paid hours worked per week for employed couples aged 45-54, 1986 and 2001**



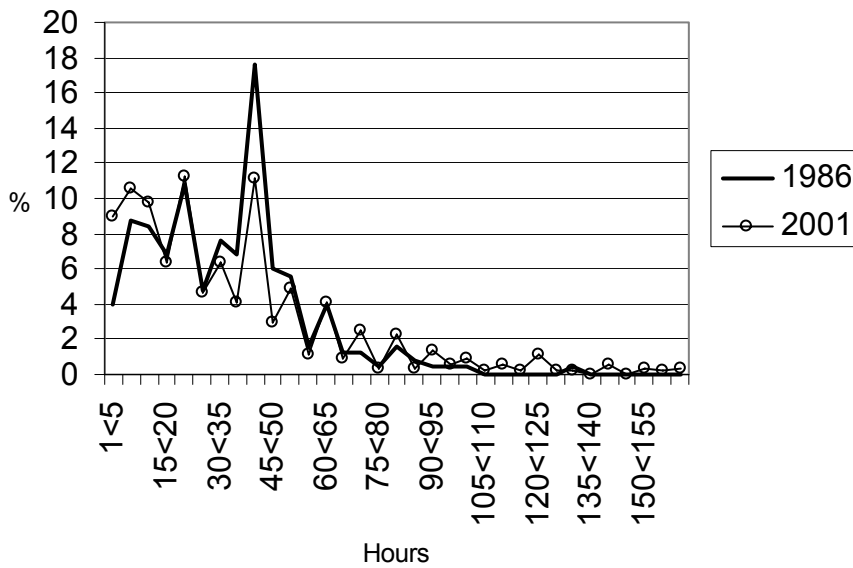
**Figure C5: Distribution of total paid hours worked per week for employed couples aged 55-64, 1986 and 2001**



**Figure C6: Distribution of total paid hours worked per week for employed couples aged 65-74, 1986 and 2001**

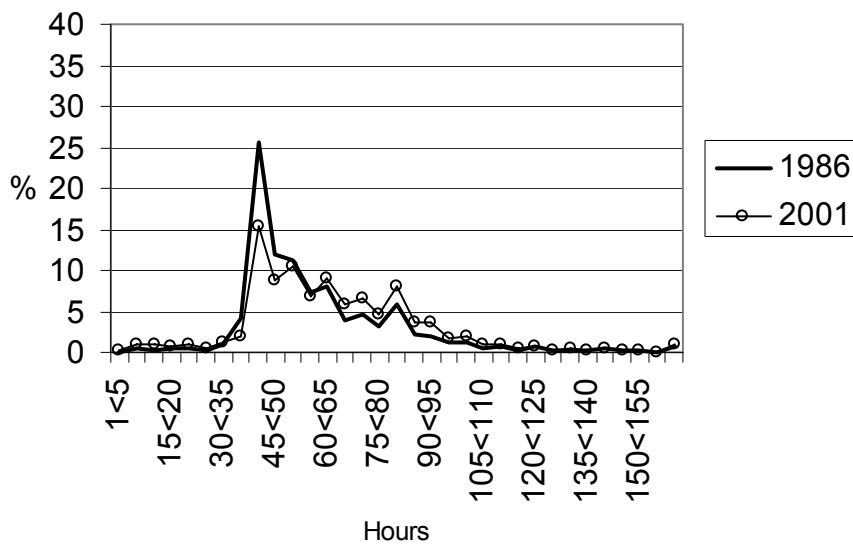


**Figure C7: Distribution of total paid hours worked per week for employed couples aged 75-84, 1986 and 2001**

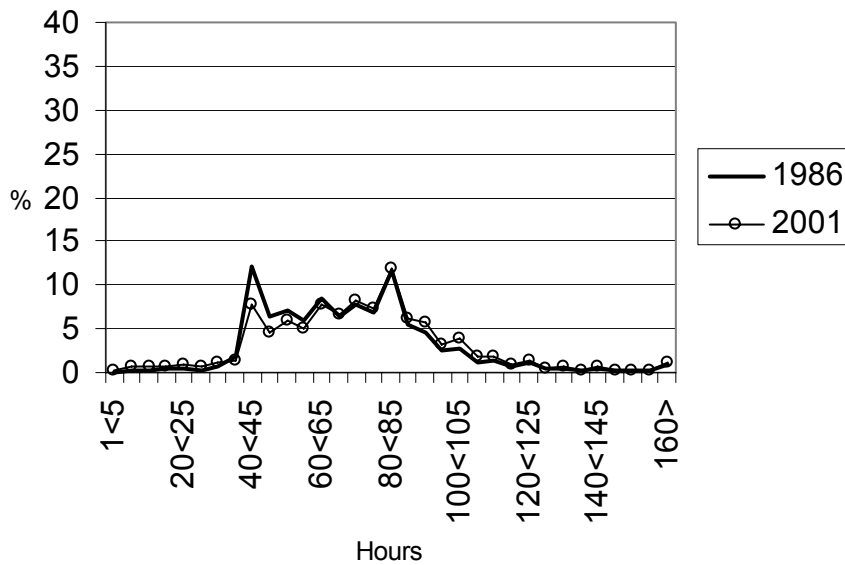


**1.22 Distribution of total combined hours: Employed couples with dependent children**

**Figure C8: Distribution of total paid hours worked per week for couples with a child aged 1-4, 1986 and 2001**

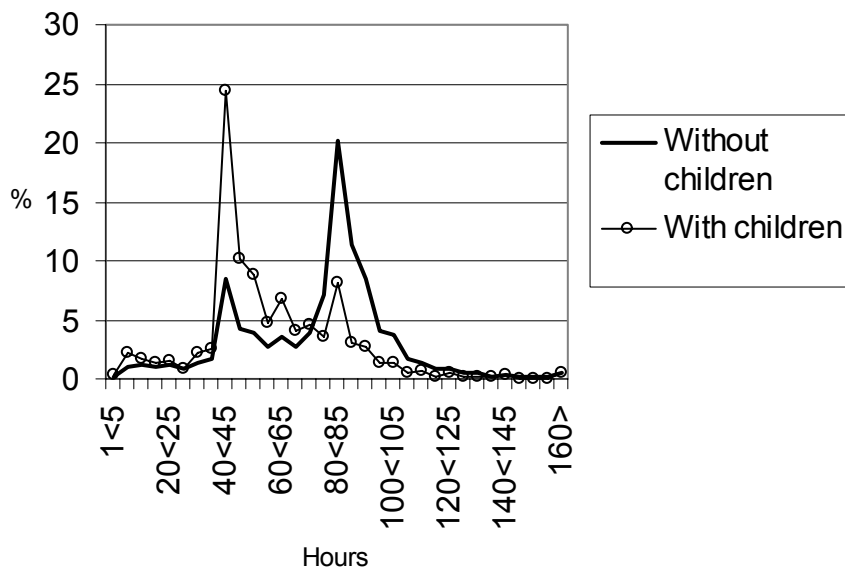


**Figure C8: Distribution of total paid hours worked per week for employed couples with a child aged 5-15, 1986 and 2001**

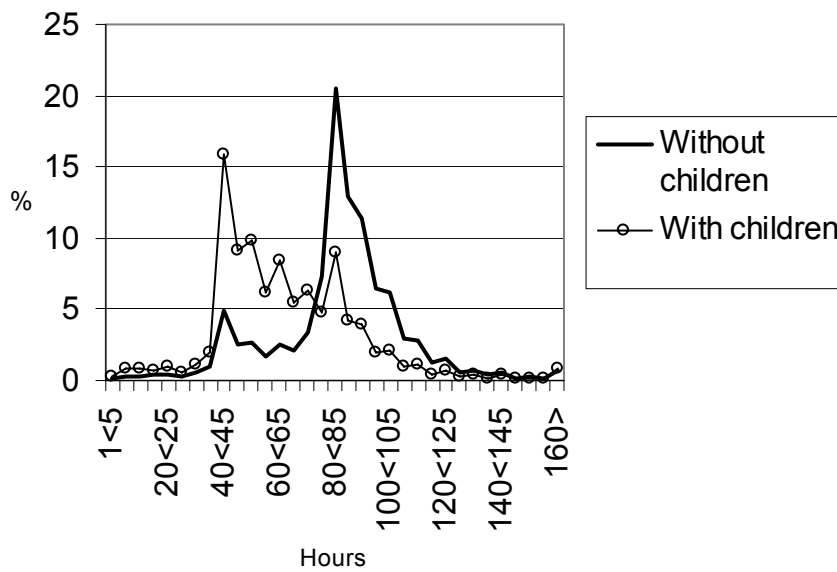


**1.23 Comparison of total paid hours worked per week in 2001 for employed childrearing and non-childrearing couples**

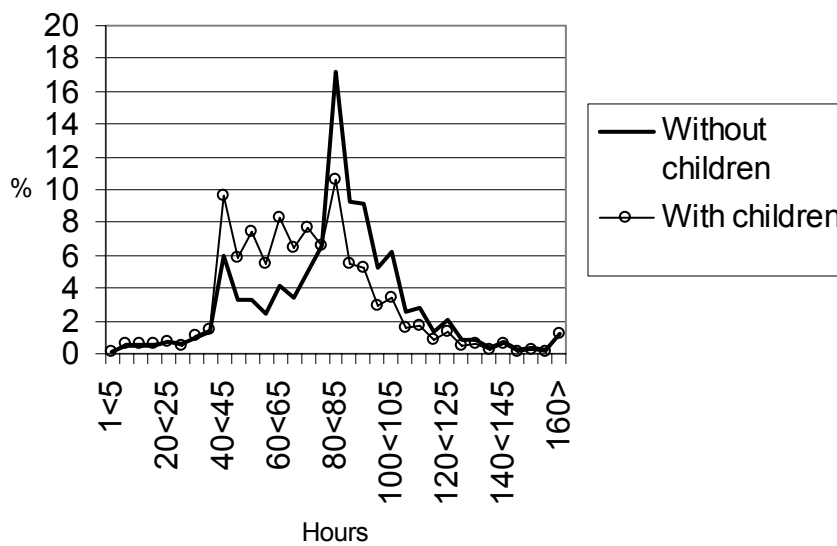
**C9: Distribution of total paid hours for employed couples aged 15-24 by whether they have dependent children, 2001**



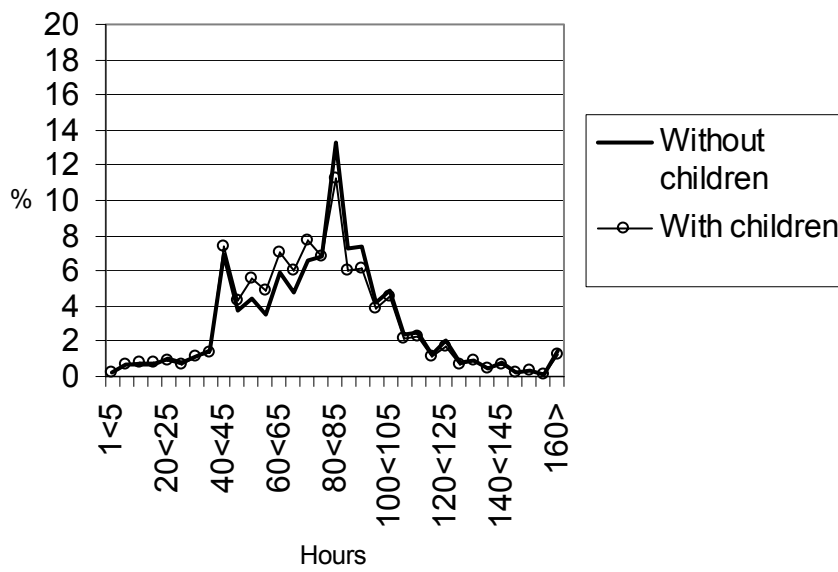
**C10: Distribution of total paid hours for employed couples aged 25-34 by whether they have dependent children, 2001**



**C11: Distribution of total paid hours for employed couples aged 35-44 by whether they have dependent children, 2001**



**C12: Distribution of total paid hours for employed couples aged 45-54 by whether they have dependent children, 2001**



## Appendix D

### 1.24 Average hours worked by employed sole mothers and couples with a child under five: Ethnic comparisons

***Table D1: Average hours worked for employed sole mothers with a child under 5 by ethnicity of child, 2001 data***

Ethnic group of child	Average working hours
Total NZ European	25.4
Total Māori	27.2
Total Pacific Peoples	30.6
Total Asian	32.2
Total Other	29.8
Sole NZ European	24.8
Sole Māori	27.5
Māori/NZ European	26.4
Other	30.3
Total	26.6

***Table D2: Average hours worked for employed couples with a child under 5 by ethnicity of child, 2001 data***

Ethnic group of child	Average working hours
Total NZ European	62.0
Total Māori	60.1
Total Pacific Peoples	58.2
Total Asian	62.4
Total Other	59.7
Sole NZ European	62.3
Sole Māori	58.7
Māori/NZ European	61.0
Other	60.3
Total	61.6

## Appendix E

### ***E1: Total average weekly hours of employed couples aged 25-59, 2001***

Women's Qualification	Average hours
Degree or Higher	75.9
Other Post School Qualification	74.2
School Qualification	72.2
No Qualification	68.8
Total	72.5

#### Qualifications of Couple

Both Partners have Degree or Higher	74.3
Other Combination of Qualifications	73.2
Neither has a Qualification	68.3
Total	72.7

### ***E2: Average hours worked per week by employed couples where the female is aged 25 to 59 years by highest qualification gained by both partners – No dependent children – 1986 and 2001***

Qualifications of Couple	1986	2001	Δ 86-01
Both Partners have Degree or Higher	78.5	81.7	3.2
Other Combination of Qualifications	72.7	78.8	6.1
Neither has a Qualification	66.8	70.3	3.5
Total	70.8	77.7	6.9

### ***E3: Average hours worked per week by employed couples where the female is aged 25 to 59 years by highest qualification gained by both partners – One or more dependent children– 1986 and 2001***

Qualifications of Couple	1986	2001	Δ 86-01
Both Partners have Degree or Higher	62.9	69.1	6.2
Other Combination of Qualifications	63.6	69.2	5.6
Neither has a Qualification	65.0	65.3	0.3
Total	64.0	68.8	4.8



***E3: Average hours worked per week by employed couples where the female partner is aged 25 to 59 years by couple income decile – No dependent children - 1986 and 2001***

Income Decile	1986	2001	Δ 86-01
1	57.5	56.2	-1.3
2	54.1	64.4	10.4
3	63.4	70.2	6.8
4	65.8	77.7	11.9
5	70.4	75.7	5.2
6	74.1	83.2	9.1
7	77.5	83.3	5.8
8	77.3	84.1	6.8
9	79.6	88.5	8.9
10	79.8	87.3	7.5
Total	69.9	77.1	7.1

***E4: Average hours worked per week by employed couples where the female partner is aged 25 to 59 years by couple income decile -One or more dependent children – 1986 and 2001***

Income Decile	1986	2001	Δ 86-01
1	63.2	54.3	-8.9
2	56.6	59.6	3.0
3	64.3	60.5	-3.8
4	53.7	69.4	15.7
5	62.3	68.5	6.2
6	66.3	70.2	3.9
7	68.2	78.2	10.0
8	71.9	74.8	2.9
9	73.0	83.1	10.1
10	77.2	76.4	-0.8
Total	65.7	69.5	3.8

## Appendix F

**Table F1: Average hours worked per week by employed couples by highest qualification gained for couples where the female is aged 35-44 years with a child aged less than 5 years, 1986 and 2001**

	1986	2001	$\Delta$ 86-01
Both Partners have Degree or Higher	59.1	63.9	4.9
Other Combination of Qualifications	58.7	63.3	4.7
Neither has a Qualification	57.5	59.9	2.3
Total	58.4	63.2	4.8

**Table F2: Proportion of employed couples working 80 or more hours of combined work per week by employed couples by highest qualification gained where the female is aged 35-44 years with a child aged less than 5 years, 1986 and 2001**

	1986	2001	$\Delta$ 86-01
Both Partners have Degree or Higher	16.3	24.2	7.9
Other Combination of Qualifications	16.4	23.6	7.2
Neither has a Qualification	20.2	26.1	5.9
Total	17.2	23.9	6.7

## Appendix G

**Table G1: Joint average hours of paid work for non-agricultural employed married couples aged 25-59, selected industrial nations**

Country and year	Average hours worked per week- All working couples	% dual earners	Average hours for dual earners
US (1997)	72	76	81
New Zealand (2001 & 1996)	71 (70)	74 (72)	81 (80)
Finland (1991)	70	81	77
Canada (1994)	65	66	77
Sweden (1995)	64	85	69
Belgium (1996)	64	58	79
France (1994)	62	61	76
Germany (1994)	60	56	75
Italy (1995)	59	46	78
UK (1995)	57	55	74
Netherlands (1994)	52	52	64

Note: The source of all non-New Zealand data is Jacobs and Gornick (2001). There are some differences in how the data were calculated between countries and so the comparisons need to be treated with caution. First, in some countries, including New Zealand, both defacto and married couples are included. In all countries the couples included are those where at least one partner was in paid work. Second, the New Zealand data is based on census data, while the other countries data are based on household income surveys. In New Zealand, agricultural workers -ANZSIC Industry - Agriculture, Forestry and Fishing - were removed from the calculation to make the data internationally comparable. In addition, both partners needed to be in the 25-59 age group. This means that the New Zealand data presented in this table cannot be directly compared with other data presented in this report. Finally, the New Zealand and international data is rounded to the nearest hour or percentage.