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A Polarisation into Work-rich and Work-poor Households in New Zealand? Trends from 1986 to 2000

by
Paul Callister

Occasional Paper 2001/3

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Labour Market Policy Group

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A Polarisation into Work-rich and Work-poor Households in New Zealand? Trends from 1986 to 2000

by
Paul Callister

Paul Callister and Associates Social and Economic Research

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Abstract

Analysis of labour market shifts based only on individuals disguises important aspects of employment change. When employment change at the household level is also analysed, a better understanding can be gained of changes in the distribution of work and income across society.

Such an analysis shows that in New Zealand since the mid 1980s work has become more evenly distributed within households but more unequally distributed across households.

While age, education, geographic location and tax/benefit systems all have some influence on the employment status of households these factors leave much unexplained about the differences in household employment patterns.

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This paper was written on contract to the Labour Market Policy Group of the New Zealand Department of Labour. The views expressed in this paper do not necessarily represent the views of the Department.

Table of Contents

Executive summary

Analysis of labour market shifts based only on individuals, or groups of individuals, disguises some important aspects of employment change. When employment change at the households level is also analysed, a better understanding can be gained of changes in the distribution of work and income across society.

An analysis of employment change at the household level can show if gains or losses in employment are spread evenly across society, or if particular family or household types are major losers or winners in times of employment change. This includes determining whether paid work is being concentrated in specific households and whether this is leading to new inequalities in both work and income.

Analysing the work patterns of all members in households can also provide useful insights into labour supply decisions. While the characteristics of individuals are important in labour supply decisions, the attributes of other family and household members can also influence choices.

Studying the employment patterns of households also provides some explanation as to why unemployment can substantially decline but why the proportion of households dependent on benefits can stay relatively stable.

In industrialised countries over the long term there has been steady increase in the proportion of couple households where both prime-working aged people are employed. In the early days of women's increasing participation in paid work, a rise in part-time work could be directly connected to the growth of couples where both partners were in paid work. In more recent times women working full-time has lead to an increase in households where all working aged adults work full-time. Yet, at the same time, fewer people are living in couple households.

Overseas research has identified that, over the long term, there has been a simultaneous growth of households where all prime working aged people are in paid work (work-rich) and households where no prime working aged person is employed (work-poor). This has led to a reduction in households containing a mixture of people in and out of paid work. One main mixed work household that has declined substantially is that of a male in a couple working full-time and his female partner staying home full-time and looking after children.

Long term data series of employment of households have not been developed in New Zealand. However, the major job losses that took place in the mid 1980s to early 1990s led to a rapid increase in the proportion of work-poor households. Census data indicate that there was an increase in work-poor working aged households from 13 precent in 1986 to 20 percent in 1991.

In the period of subsequent job growth, and declining unemployment, the proportion of work-poor households declined very little. Census data indicated that the proportion of work-poor households only declined slightly to 19.4 percent in 1996. This pattern of hysteresis has been identified in other OECD countries.

The changes in employment at the level of households mean that from the early 1990s through to 2000 about a fifth of working age households in New Zealand could be classified as work-poor. This is of a similar magnitude to most OECD countries. While we have no data on the duration of being work-poor in New Zealand, UK research indicates that over a half of work-poor households may be long-term work-poor.

Households with children, but particularly sole parent households, are over-represented amongst work-poor households in New Zealand. New Zealand also stands out internationally in terms of the proportion of work poor households that contain children. In 1996, nearly 36 percent of work-poor households in New Zealand contained children. This compares with an OECD average of 18.7 percent.

In New Zealand, despite a dip in the mid 1990s, there has been overall little change in the proportion of households that could be classified as work-rich since 1986. In June 2000 HLFS data indicate that just over 58 percent of working aged households had all adults employed. However, this overall pattern disguises strong growth between 1986 and 1996 in work-rich couple households, particularly those with young children.

In the long term, the growth of work-rich and work-poor households has come about through both changes in households and changes in work within households. In terms of polarisation of work in households, one contributing factor has been the growth in single working aged households, whether they are sole parents or people living alone. This inevitably leads to a polarisation of work as such households have to be either work-rich or work-poor.

Yet, a decomposition analysis of the growth in work-poor households between 1986 and 1996 indicates that of the 6.4 percentage point change only about half a percent could be directly attributed to change in household composition. The major driver in this period was changes in employment within households.

In particular, there was strong growth in no job couples. This reflects the major job loss of prime-aged men, and particularly older men who were more likely to be living in couple households.

However, further adding to the complexity, changes in household type can, at times, be influenced by changes in the labour market, such as the loss of jobs of men, just as changes in household type can have some impact on the labour market.

The changes in work have reduced employment inequalities between men and women in couples but have increased the inequalities in the distribution of work between couples.

International literature indicates that age, education, geographic location and tax/benefit systems all have some influence on whether households are either work-rich or work-poor. In particular, government policy seems to have a strong influence on the work patterns of sole parents. But these factors leave much unexplained about the differences in employment patterns across households. The research suggests that many other factors, including social norms, are likely to be having an influence on the work-status of households.

While in the past the increase in part-time work amongst partnered women appears to have been a key factor in the growth of work-rich households, and while prime-aged women in couples were by 1996 still highly over-represented amongst part-time workers, in the last two decades part-time work spread to both men and women in a wide range of age groups and living arrangements. In New Zealand, it does not appear that most of the new part-time jobs for prime-aged people went to those living in households where other people had full-time jobs. However, it may be that rates of part-time work are higher amongst dependent children who live in households where their parent/s are employed.

The growth in part-time work, including some very low hours of work, in some household situations suggests that categorising anyone who has a job as being "work-rich" is too crude. In general, it seems better to classify only those households where everyone works full-time as being work-rich. However, even within this narrower group of full-time workers, there is some still some diversity in hours worked and considerable diversity in income earned.

In addition, much of the picture of a polarisation of work in households is a static one. In particular, the issue of how long work-poor households stay work-poor is important. Understanding transitions in work in households is likely to be an important aspect of understanding changes in income in households. While some research could be undertaken using HLFS data, ultimately longitudinal studies are the best way to study such transitions.

Finally, a number of factors, including aging of the population and the increased educational levels of young women, suggest that there will be a further movement towards the polarisation of work across working aged households.

Introduction

Much of the analysis of labour market trends in New Zealand focuses on information collected on individuals. This information is then usually aggregated across the whole economy to produce statistics such as estimates of labour market participation rates or levels of unemployment. These aggregated estimates are also produced on the basis of other grouping of individuals, particularly ethnicity, age, gender and regional location.

However, in a series of articles Gregg and Wadsworth (1994, 1996a, 1999, 2000) argue that much of the current analysis of labour market changes obscures major shifts that have important policy consequences. Individuals not only live in geographic areas that might be of interest to policy makers or belong to particular ethnic groups, but they also tend to live together in families and households. Gregg and Wadsworth show that over the past twenty years the pattern of employment in Britain, and in most other OECD countries, has become more unevenly distributed across households. The share of households where everyone is in paid work has grown, and so has the share of households where no adult works. One result is that it is possible to have unemployment declining but at the same time the uptake of income support payments staying stable or even increasing.

As part of the driver behind this change, Gregg and Wadsworth (1996b) claim that low paid part-time work and casual work, types of non-standard jobs often seen as rapidly growing in industrialised countries, are increasingly only able to be taken up by people living in households where there is already one (or more) steady income earner. The idea is that such jobs on their own are unattractive relative to available income support, but become viable when they simply add to other higher household income. Potentially some types of self-employment could be added to this list.

Gregg and Wadsworth suggest that the scale of polarisation of work amongst households in some countries has been so large that the analysis of labour market outcomes using individual level data can reach quite different conclusions to that provided by a household based analysis, even when using the same source of information. For example, they note that Britain in the year 2000 unemployment rates have been at a 20 year low. Yet, at the same time the number of households with no workers is three times higher than in the seventies. This polarisation of work across households can contribute toward explaining some of the increase in (household level) income inequality, poverty and deprivation observed in some countries, including New Zealand (O'Dea 2000).

This paper expands on some exploratory work already carried out in New Zealand on the polarisation of work across households in the period 1986 to 1996 (Callister 1998a). This earlier work showed there was some shift within prime-aged couples and households to either work-poor or work-rich status between 1986 and 1996. The most significant growth in the proportion of work-poor couples and households took place in the period of job loss between 1986 and 1991. While the strong employment growth in the economy within the next inter-censual period increased the proportion of couples that were work-rich, it only marginally reduced the proportion that were work-poor.

In this paper I draw both on international research and New Zealand data to explore four main issues. These are:

- Does an analysis of the distribution of work across households help us better understand the workings of the labour market?
- What might be driving the changing distribution of paid work across households?
- What are the main characteristics of work-rich and work-poor households?
- Has the growth of part-time work been a key factor in the development of work-rich couple households?

In this analysis, the primary focus is on couple households. This is for four reasons. First, there has already been much discussion on the employment patterns of sole parent families (e.g. Goodger 1998, Stephens 2000, Wilson 2000). A second reason for focussing on couple families is that it allows an analysis of the complex interaction of changing patterns of women and men's employment. Third, despite major changes in household type over the past few decades, living in couple households is the single largest living arrangement for prime-working aged women and men. A final reason is that, as will be shown, much of the change in employment has taken place within couple households.

In this analysis particular attention is placed on people in their prime working ages. While various definitions of prime-working ages have been used in both New Zealand and overseas when using census data I have chosen to use the age group 25-59.[1] As will be discussed, when using HLFS data I use a slightly different age group.

Finally, in the paper I use the terms work-rich and work-poor that were coined by Gregg and Wadsworth. Unless stated otherwise, work-rich households are those where every working age person is in paid work, and work-poor where no one is in work. However, at times, I narrow these down to households where everyone works full-time and households where no one is in the labour force.

The long-term growth of work-rich and work-poor households in the OECD

Given that research has not been carried out on long-term trends in the development of work-rich and work-poor households in New Zealand, the following table is drawn from the work of Gregg and Wadsworth (2000). It is based on data from the UK Labour Force Survey, and shows that the major growth in the proportion of work-poor working aged households took place between mid 1970s and the latter part of the 1980s. It also shows that the proportion of households where all adults were in work was already high in the 1970s but nevertheless continued to increase through to the late 1990. It is highly likely

[1] In much of the analysis of census data I only include couples where both partners were in the 25-59 age group. However, in some sections I use only the age of the female partner.

that similar broad trends were taking place in New Zealand in the 1970s and early 1980s. [2] However, given the major restructuring period in New Zealand during the late 1980s and early 1990s there are some differences in this latter period as will be shown.

Table 1 – Growth of work-poor and work-rich households in the UK, 1975-1999

	Households where no adults were in work	Households where all adults worked	Working age adults in workless households	Children in workless households	Employment rate
	%	%	%	%	%
1975	6.5	56.7	4.3	N/A	76.8
1981	10.9	52.1	7.8	11.0	72.9
1987	16.5	54.2	11.9	17.5	72.5
1990	14.1	60.7	9.8	14.5	76.9
1996	19.2	60.9	14.1	20.4	73.9
1999	17.2	64.0	12.7	18.4	76.4

Source: Gregg and Wadsworth (2000)

Gregg and Wadsworth (1996a) have shown that the growth of work-poor households has been a trend characteristic of most OECD countries between 1983 and 1994. The paper describes changes in the distribution of employment across prime aged (20-59) households for 13 OECD countries. The authors do, however, note that this was a period of persistently high unemployment and the results reflect this.

Also of interest was their finding that in seven countries there was a simultaneous rise in both workless and fully employed households. They also found that in all the European countries studied there has been a shift in family composition toward single adult households who had a high incidence of worklessness.

Table 2 shows an international comparison of the percentage of working-age households that were work-poor in 1996.

[2] Martin (2000), using census data, does show the decline in one earner parenting couples from the mid 1970s onwards.

Table 2 – The proportion of households that were work-poor in 1996

Country	% of households work-poor
Australia	16.3
Belgium	24.8
Canada	19.9
France	21.9
Germany	20.7
Greece	20.1
Ireland	20.4
Italy	20.7
Luxembourg	16.4
Netherlands	19.7
New Zealand	**19.4**
Portugal	13.3
Spain	20.0
United Kingdom	21.6
United States	15.4

Source: Gregg and Wadsworth (2000) for OECD countries other than New Zealand. The New Zealand figure is drawn from a following section and is based on census data. These data should be treated only as a guide due to differences in measurement between countries.

In their various studies, Gregg and Wadsworth show that a significant exception to the growth in work-poor households in the period studied was the U.S.[3] However, a long term trend towards work-rich and, potentially, income-rich, families does show up clearly in the U.S. (Jacobs and Gerson 2001, Juhn and Murphy 1995). The income issue is important as Juhn and Murphy 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. As will be discussed in the section on part-time work, the initial rise in labour market participation by wives was via part-time work. Linked to this last point, the research by Jacobs and Gerson shows that between 1970 and the late 1990s the proportion of work-rich couples working long hours (100+ hours per week per couple) increased markedly.

Research published by the OECD also suggests a growth in work-poor households. The OECD (1995) notes that in the mid 1990s one third to one half of all unemployed across its member countries lived in households where no other person had a job. This proportion had increased almost universally across OECD countries from the mid 1980s. Moreover, a substantial and growing proportion of the unemployed living in these "jobless" households were long-term unemployed, a factor which, the OECD suggest, may exacerbate their lack of contact with the world of work. Later work by the OECD (1998) confirms these trends.

Some potential intergenerational implications also emerge in a number of studies. In British research, Dex and Taylor (1994) found that, in 1991, among households with an adult child, the adult child was in employment in 69 percent of dual-earner couple households, but was employed in only 4 percent of no-earner couple households. In

[3] While clearly the strong economic growth in the US is a major factor in the US being an exception, other factors are probably at work. For example, for a variety of reasons employment is far higher amongst sole mothers in the U.S., a group that in most countries is over-represented amongst work-poor households,

research on the employment patterns of 16 and 17 year old high school students in the US, Lerman (2000) found employment rates were higher (65.1 versus 56.7 percent) for students whose parents were employed. Potentially even longer-term intergenerational issues may be associated with the growth of work-rich and work-poor households. In New Zealand it has been found that work-poor households with young children, whether sole parent or two parent, are low users of early childhood and education services (Callister 1999).

Overall, a number of international studies indicate that paid work is tending to be concentrated in particular families and households. The research also shows that in the mid 1990s in most OECD countries around a fifth of working aged households had no one in paid work. Some research also suggests that there may be intergenerational effects of these trends.

Changes in the distribution of work across households: Is this primarily a labour market issue?

In determining what are the main drivers of the changing distribution of work across households, a first question is whether the changes are primarily related to shifts in the labour market, or mainly the result of family and household change. As Gregg and Wadsworth (2000) note, if the simultaneous growth of work-poor and work-rich households can be primarily linked to an increase in one person households then the change may not be primarily be an issue for labour market policy makers to be concerned about. However, if the distribution of work has become more unequal across all main household types, including couple households, then policy makers need to be aware of the reasons why the stock of jobs is going disproportionately to households with someone already in paid work.

Certainly, over a long time period the demise of the extended family as a household norm has allowed work-rich or work-poor households to emerge even if the wider kinship group may not be classified as work-poor. For example, Snooks (1995) notes that the break-up of the traditional Australian extended family, of three generations living in the same household, occurred in the period 1900 to 1930. He suggests that this had important implications for the living standards of both young families and retired couples, who became separated from the more affluent middle-aged, and often work-rich, group. The young families were likely to be in a mixed work pattern, with a male in full-time paid work and the female partner not in paid work, while couples having reached retirement age were likely to be work poor. Naturally, such a break-up of extended families created more households and so stimulated demand for housing and other goods and services associated with individual households. If also created more households dependent on government income support.

Snooks focussed on couple households, but the break up of the traditional nuclear family and the growth of single adult households provides further potential for polarisation of work across households. More single adult households provide a greater likelihood of

both fully employed and no work households in the population. Again, more single adult households increase the ratio of households to the total population.

Further complicating this assessment, and a point not specifically addressed by Gregg and Wadsworth, is that changes in the labour market might, in fact, be an important driver of change in household form.[4] For example, a loss of jobs or declining real income amongst prime-aged men might inhibit couple formation or lead to a higher rate of couple dissolution. A recent review of international literature, alongside an exploration of New Zealand data, would suggest that labour market change has some influence on household form. However, other factors such as changing household norms are also very important (Callister 2000a).

Another factor to take into account when using international literature as a guide to isolating out changes in household type and change in work within households is that there are some major differences between countries. For example, for a variety of reasons in both Sweden and the U.S. there are high employment rates amongst sole mother families but low rates in New Zealand (Stephens 2000). Stephens shows that in the early 1990s just over a quarter of New Zealand sole mothers were employed as against 60 percent in the U.S and 70 percent in Sweden. Due to differing social norms, in Germany and Ireland employment rates amongst partnered mothers with young children are low compared with New Zealand. In addition in the predominantly Catholic countries of Ireland, Italy, Spain and Portugal there has been less of a shift away from extended and nuclear families than in countries such as New Zealand. In both these issues, the U.K. is fairly similar to New Zealand, so research findings on employment and household change are more likely to be directly applicable to New Zealand.

Finally, using a decomposition analysis, the research of Gregg and Wadsworth (2000) shows that in Britain since the 1970s changing household form accounts for only a quarter of the rise in work-poor households. Therefore, changes taking place in the labour market along with changes in labour supply within households need to be carefully examined.

Changes in household type in New Zealand

Over the long term, the changes in households described by Snooks in Australia have been taking place in New Zealand. First, there was the decline of the extended family, followed by a decline in the nuclear family. While there has always been some diversity of households, some of the main household types to emerge out of this change are people living on their own, sole parent families, and people in "flatting" arrangements. However, changes have also taken place within couple families. This is illustrated in Table 3. This table includes people of all ages (including the elderly) and shows shifts in household type between 1986 and 1996. It indicates there has been a decline in two parent families raising

[4] Equally, changes in household type might have some impact on patterns of work. For example, a growth in well-educated people living alone, or dual career couples, is likely to lead to an increase in the demand for household services such as cleaning.

children but a growth in couple households without children. The move toward delayed childbearing and the increasing number of couples whose children have grown up and left home were likely to have been important contributory factors to this trend. In addition, there may have been growth in the proportion of couples that made an active choice not to have children.[5] Although not showing all household types, Martin (2000) demonstrates a strong decline in parenting couples since the mid 1970s as well as growth in non-parenting couples and sole parent families.

Table 3- Household type, 1986-1996

Family household	1986	1991	1996
One family			
Couple no children	23.1	23.9	25.0
Two-parent	40.9	36.7	34.8
One-parent	9.6	11.6	11.5
Two or more families	1.5	1.7	2.6
Total family household	75.2	73.9	73.9
Other multi-person household	6.0	5.9	5.4
One person household	18.8	20.2	20.7
Total	100.0	100.0	100.0

Source: Statistics New Zealand (1994)

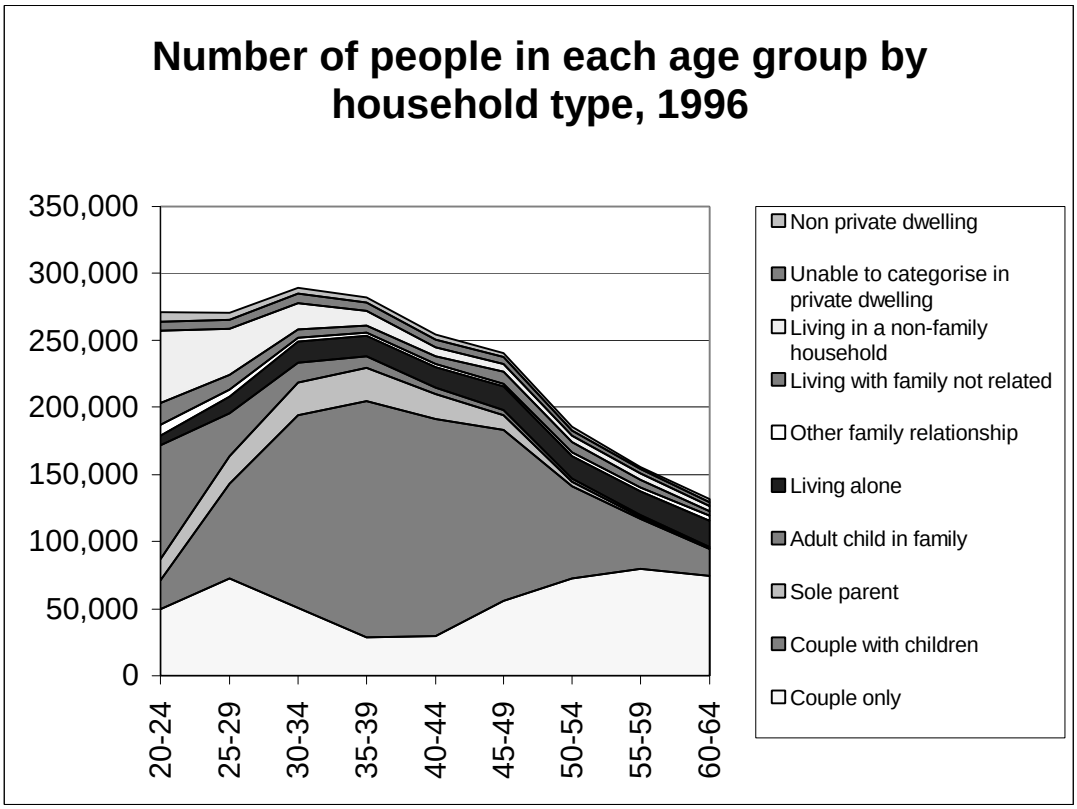
Between 1986 and 1996 the number of households in New Zealand increased by 17.2 percent. Much of this growth was caused by a 26 percent increase in one-person households. While the rise in one-person households largely reflects the ageing of the population, this living arrangement has become more common amongst younger people as well. Household Labour Force data for households with someone aged 18 to 64 living in them suggests this growth of single person households has continued from 1996 through to the year 2000.

Figure 1 shows living arrangements of people aged 20-64, so covers a five-year age group on either side of my chosen prime-aged group. It shows that age is an important factor in household living arrangements. For example living at home as an adult child is far more common amongst people under 30 years of age, while living alone becomes more important over the age of 30.

Figure 1 also shows that the size of each age cohort is an important factor in determining overall patterns of household arrangements in New Zealand, and that as the population ages this factor on its own is likely to have a major impact on household structure.

[5] In the US, Costa (2000) notes that a significant, but now falling, number of women in upper career jobs do not have children.

Figure 1

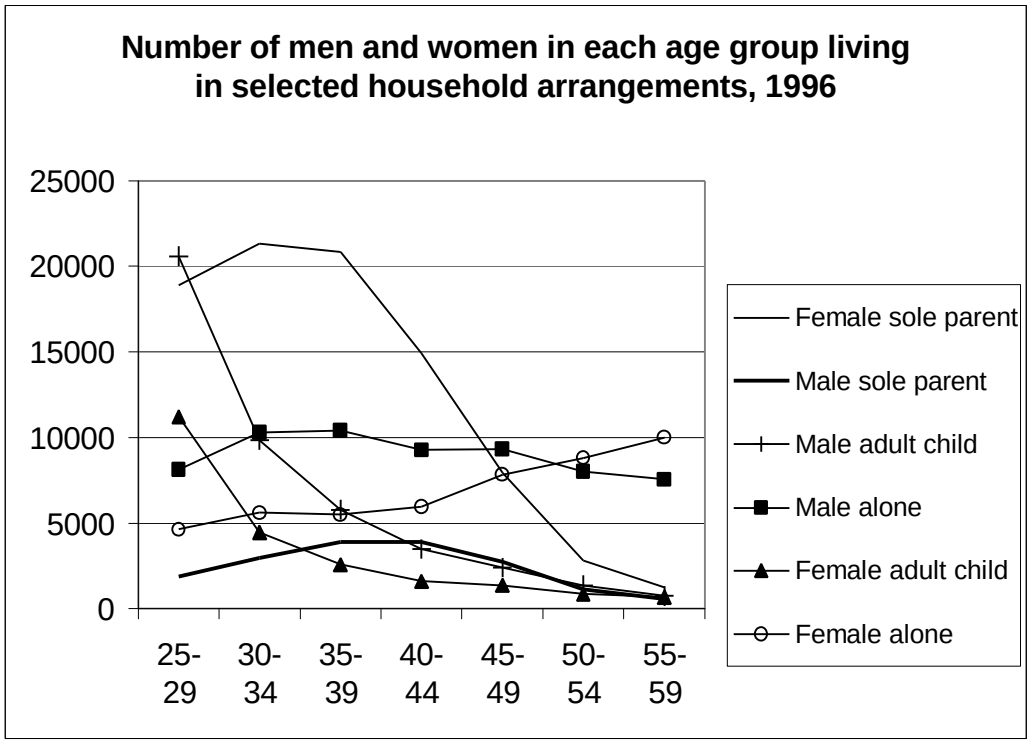


Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Figure 1 also indicates that despite previous data showing the growth in alternative household arrangements, couple households, particularly couples with children, remain the predominant living arrangement for people aged 25-59.

Within some of the non-couple households there were some major differences in numbers of people in each group when gender is considered. Figure 2 illustrates this. For example, in 1996 there were more men living with their own parent(s) as an adult child, while far more women were sole parents. In addition, the peak age group for sole fathers is older than for sole mothers. This reflects that, for a variety of reasons, children in sole father families tend to be older than in sole mother families (Davey 1999). This age difference of children is likely to affect the relative ability of sole fathers versus sole mothers to be in paid work.

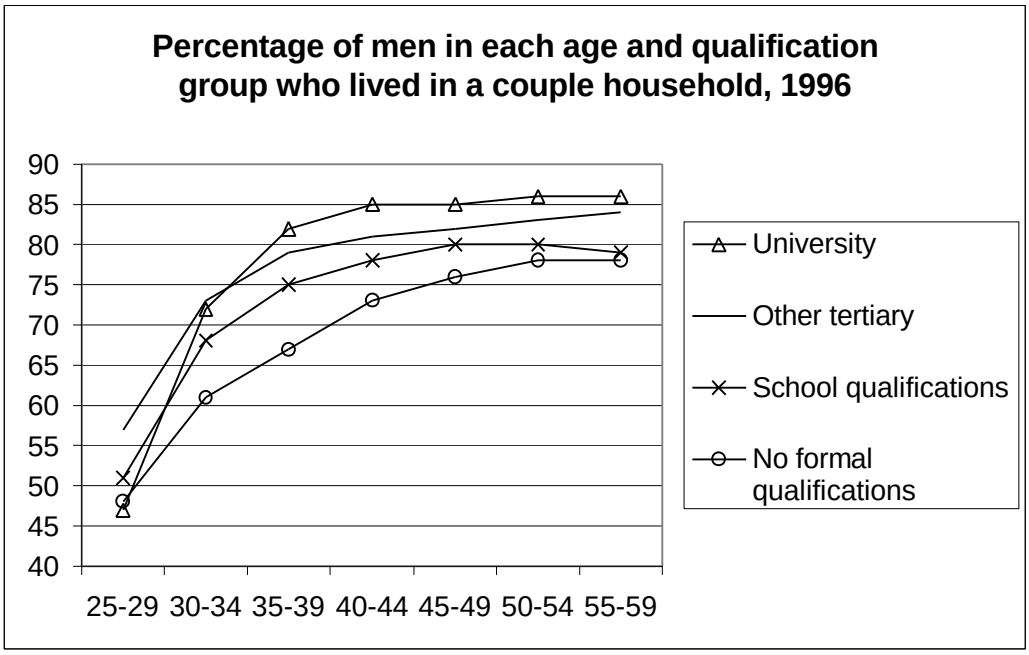
Figure 2



Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Finally, while age is important in living arrangements so too are educational qualifications. Figure 3 shows the percentage of men in each age and educational group who lived in couple households. It indicates that in almost all age groups, men with no formal qualifications were less likely to live in couple households. Given that women with no formal qualifications were also less likely to live in couples, this reduces the potential number of "education-poor" couples (Callister 2000a). But given the link between education and employment, it also suggests that non-couple households will have a greater probability of being work-poor than couple households.

Figure 3

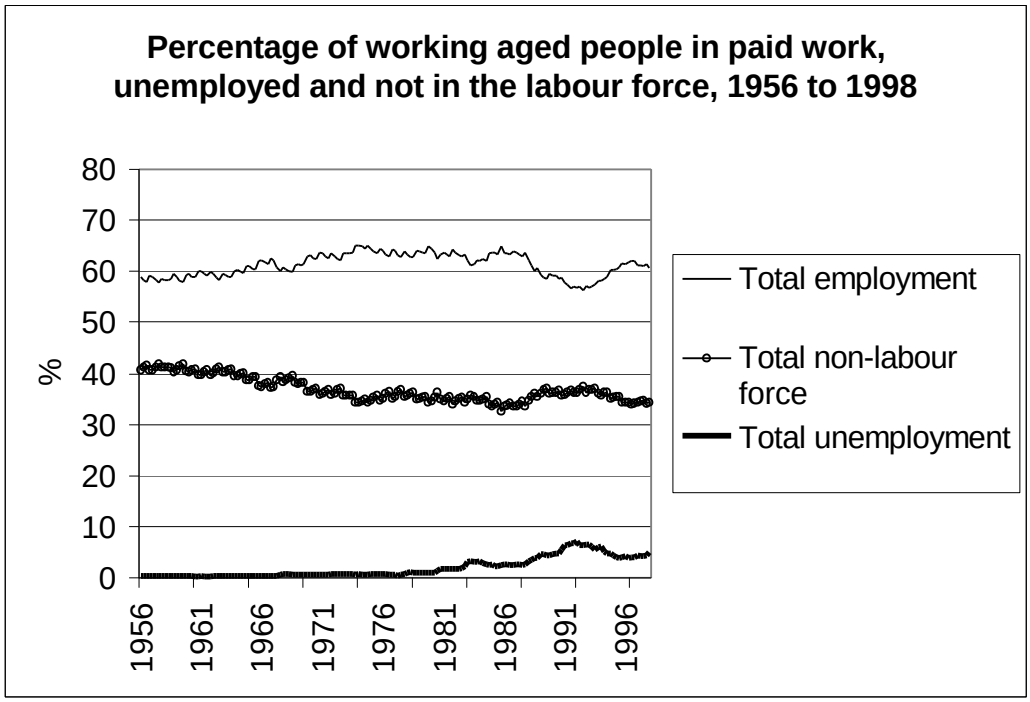


Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Long-term changes in paid work in New Zealand

Much has been written about long-term changes in employment in New Zealand. While many of the changes in employment, such as the increasing strength of education as a predictor of employment status, are relevant to discussions of the changing distribution of work across households, in this section I simply focus on very broad long-term changes in employment, unemployment and non-labour force status. First, and most important, Figure 4 shows that the percentage of the working aged population who were in paid work has stayed relatively stable over a long time period. The one period that stands out is the major dip in the late 1980s to early 1990s. In contrast, over the long term the percentage not in the labour force has decreased while the percentage unemployed has increased. This indicates that an increasing proportion of the working aged population have either wanted to be in work or needed to have a paid job.

Figure 4



Source: Derived from Chapple (1994, 1999)

As will be shown this stability in overall employment rates disguises some important changes in the distribution of work across households.

Why might households be work-rich?

This section focuses on couple households. Historically, aside from major periods of recession, many couples would have been work-rich. [6] Small businesses and family farms required all family members to be producing goods for either sale or consumption by the family. However, in New Zealand and in most industrialised countries, in the middle of last century there emerged a period where many women in couples withdrew from paid work, either on getting married or having children.

In recent decades there are many possible reasons for couples again becoming work-rich. Firstly, there is much international evidence to suggest that, in part due to declining incomes of some groups of men, many couples need two incomes to maintain their target standard of living (e.g. Harkness *et al* 1996).[7] When women or other family members move into paid work to maintain family income this is often described as the "added worker" effect.

[6] This is using the definition of having both partners in paid work.

[7] 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 then this further increases the perceived need for additional income.

But, just like many men, a significant number of women, especially well-educated women, not only want to be in paid work but also often want to work full-time. There can be many reasons for women wanting to be in paid work. It can be for the money and the economic independence it provides, it may be for status, or it may be primarily for social reasons. For instance, Hochschild (1997) suggests that for some groups of women, paid work provides a less stressful and happier environment than home life.

Martin (2000) makes the point that the push and pull factors for women moving into work can vary somewhat between countries. He notes that in the UK it was wives of low-earning husbands who tended to increase their paid employment, while in the U.S. the increase was higher amongst wives of high-earning men.

In New Zealand, as in other industrialised countries, well-educated women tend to form couples with well-educated men (Callister 1998b). This means that both partners in such couples are potentially well placed in the labour market. It may also be that increasingly the marriage market is bringing together people with a similar attitude to work. For instance, in a time use study in Sweden, Sandqvist (1987) 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. Yet having two people in a couple who have good opportunities in the labour market also opens up the possibility of one of them voluntarily withdrawing for some period to form a mixed-work couple.

The mixed-work couple model had been, and still is, primarily based around childrearing, particularly when children were under five year of age. However, in most industrialised nations there is both an aging of the population and declining fertility rates. For couples without dependent children there are fewer impediments for both partners to be in paid work. However, for couples with children in most industrialised countries a number of factors have had an impact on the amount of time parents spend rasing children as opposed to time in paid work. These include:

- smaller families
- changing attitudes with regards to parental versus non-parental care[8]
- an increase in both public and private investment in pre-school as well as after-school care [9]
- an introduction of job protection through parental leave schemes. This encourages women to remain attached to the labour market through their childbearing ages

[8] However, even if total childcare time is reduced smaller families can actually lead to parents spending more time with each individual child (see for example Bianchi 2000).

[9] Such services may be most likely offered in areas where there is a high concentration of work-rich households so the trend may be self-reinforcing.

In the past, the mixed-work model had also been seen as advantageous for advancing the careers of men. For some high earning men, there may be still be some advantages in having a wife at home organising dinner parties, but for middle-income men there can be 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.

The growth of work-rich couples can itself have an impact on the labour market. For example, Costa and Kahn (1999) argue that American couples with a similar level of qualifications have a colocational problem. Costa and Kahn found that college-educated couples are increasingly concentrated in larger metropolitan areas and they attribute half of this to a growing problem of colocation. The couples are not only both more likely to find suitable jobs in such locations but that relative returns of college educated couples in large cities have increased relative to small cities. This is seen as leading to a concentration of human capital in large cities. This collocation problem can have an impact on the delivery of services to rural areas. For example, in New Zealand, in the past a male doctor might have had a wife who was a schoolteacher and so could easily locate to a small rural town. Now it might be a female doctor with a partner who is a lawyer who cannot be employed in such an area.

Why might households be work-poor?

Of more direct interest to governments and other social policy makers is a growth in work-poor couples and other work-poor households.

Single adult households

There are two types of single adult households. These are those with dependent children and those living on their own. However, even these are not entirely distinct groups. For example, given that there is evidence that being a single parent inhibits couple household formation, for a variety of reasons a significant number of sole parent households will transform into adult only households when children leave home.[10] In addition, some adults living on their own are non-custodial parents and may in fact be looking after their children for part of the week/month.

First, I briefly consider sole parent households. There are widely divergent views about why sole parents form and, connected with this, why they might then be work-poor. For example, there is international evidence that suggests that government policies have a particular influence on employment rates of sole mothers (Duncan and Edwards 1997).

[10] One reason is that in New Zealand among people not living with a spouse or partner, the sex ratio more strongly favours men, particularly after the mid-thirties (Goodger personal communication).

New Zealand research also confirms that government policies in areas such as childcare and benefit eligibility are important influences on work patterns of sole parents (Stephens 2000, Wilson 2000). But other theorists suggest that issues such as social norms and work ethics are important in influencing work patterns of sole parents (for a review of these theories see Buckingham 1999). Empirical data show that education is an important factor as to why sole parents tend to be work-poor. In New Zealand and other countries sole parents tend to have lower educational qualifications than partnered parents. Connected with this, Maori and Pacific peoples are highly over-represented amongst sole parents in New Zealand.

Much of the international research focuses on sole mothers, who make up the greatest proportion of sole parent families. Internationally, less has been written about employment patterns of sole fathers. In New Zealand, while sole fathers are more likely than sole mothers to be in paid work, Dixon (1999) has found that sole fathers are over-represented amongst those not in the labour force.

People living alone are a very diverse group. There are well-educated men and women choosing to live alone. This includes many young people who have yet to form long-term relationships, or who do not live with their partner. These people tend to be work-rich. A delay in couple formation by people with good labour market prospects will tend to raise the number of work-rich households in an economy.

However, at the other end of the spectrum are the work-poor, and often education-poor, men and women who live alone.

Couple households

A variety of ideas have been put forward as to how couples might become work-poor.[11] In part, the various individual theories reflect the particular route of individuals into work-poor status. Couples can involuntarily become work-poor through sickness or unemployment of both partners. Some couples can also become work-poor through choice, such as through early retirement, both partners studying full-time or they may both be in a period of transition between jobs such as recently having returned from overseas travel. The shift to being work-poor can occur when in a mixed work, traditional family, the man exits the paid workforce and his partner does not move into paid work to compensate. Alternatively, it could occur in a couple where the man was not in paid work and his partner has been. Some work-poor couples may also move from a work-rich status if both partners simultaneously exit paid work. An example of this would be where a family business, such as a farming enterprise, fails.

In their 1994 paper Gregg and Wadsworth put forward three main hypotheses for the growth of work-poor couples in Britain. These are "within family considerations", "common characteristics" and the welfare system. Also in Britain, Cooke (1987) has put

[11] It should be noted that as some couples become work-poor they will then separate.

forward a number of ideas as to why work-poor couples might exist. In general, these theories focus on the loss of jobs by men and the flow-on employment consequences within the couples. This includes an interest in the research literature as to why many women in couples do not compensate by increasing their labour market participation, or at least maintain their existing level of participation, as men exit from paid work. Combining the thoughts of a number of researchers provides a range of theories.

- Employment and wage earning options may mean that a couple or family cannot survive on only the female partners income. So if the male exits paid work, the female partner may also exit to enable the couple to qualify for income support payments. In Britain, Gregg and Wadsworth refer to this as the "deducted worker effect". In New Zealand, both Else (1997) and Rankin (1993) have put forward this type of argument.
- The male partner may not be in paid work because of illness and his partner may have withdrawn from paid work to care for him. However, this could also operate in reverse if the female partner becomes ill. This idea connects into the view that health might be an important factor in the exiting of individual men from the workforce (Dixon 1996).
- Loss of primary earnings may make the employment of the second earner more difficult to sustain. Cooke argues that having a primary earner may provide access to equipment, transport or contacts with potential employers that help maintain a second source of income.
- Common characteristics. This is an idea put forward by both Gregg and Wadsworth and Cooke. Cooke suggests that the female partners of men not in paid work may have fewer labour market skills or other characteristics which disadvantage them when compared to the partners of employed men. The common characteristics could be levels of formal education or cognitive ability. Alternatively, both partners may have other similar interests that might affect their workstatus. Both national and international research shows a strong tendency for couples to have similar levels of education (Callister 1998b)
- Local labour market effects. A further theory put forward by both Cooke and Gregg and Wadsworth is that employment downturns are highly localised so labour demand for both women and men in an area decline. If such couples are not highly mobile then they may become long-term work-poor.

The concept of "fixed gender roles" has also emerged as a possible reason why couples might be work-poor. There are a number of attitudes, and resulting behaviours, which might be important in relation to fixed gender roles.

- Employers may discriminate against women in the workplace, so indirectly work against women entering well paid work in couples where the male is not in work.
- Cooke argues that some women may believe that withdrawing from work will help employment prospects for their husbands. This is based on the idea that there are a finite number of jobs in the economy.

- Morris (1990) and Cooke have suggested unemployed men may be reluctant to undertake household and childcare work, limiting paid work opportunities for their partners.
- Allen and Hawkins (1999) have suggested there may be some instances of maternal "gatekeeping" where men with dependent children are not encouraged by their partners to become primary caregivers so they can work full-time.

However, it is unlikely that these fixed gender roles either individually or combined will be having a major effect on employment. In addition, some of these and the previous theories can only explain the persistence of work-poor couples if they are combined with some sort of persistent shock to the economy that reduces the number of primary earners that are in work.

Many of the theories are difficult to test either empirically either individually or for their possible interaction with each other. However, Gregg *et al* (1999) report on some multi-variate analyses which they have undertaken that show that the variables of education, age and region explain only about a third of the difference between the work patterns of households. They also found that about a further quarter of the gap could be explained by the incentive provided by the tax/benefit system. This means that only just over a half of the differences could be explained by observed characteristics.

The growth of work-rich and work-poor households in New Zealand

Census data – 1986 to 1996

Census data allow researchers to determine both the number of people living in a household and how many of these people are employed.[12] While potentially, long-term series could be developed the following analysis is based only on the 1986, 1991 and 1996 censuses. I then draw on HLFS data from June 1995 onwards for more recent trends.

In the first part of this analysis I include all household types (such as couples, people living alone etc) but consider only those households where one or more person aged 25-59 was living. [13] Based on these criteria, the data show that in 1986 13 percent of prime-aged households overall could be considered work-poor (no prime-aged person in work), this rose to 20 percent in 1991 and declined marginally to 19.4 percent in 1996 (Tables 4 and 5). At the other extreme, in 1986 64.4 percent of households were work-rich (all prime-aged people employed), this declined to 59.8 percent in 1991, then rose again to 63.4 in 1996. That the work-poor households declined only marginally, but work-rich households

[12] This census analysis, and the following analysis of HLFS data, excludes non-private dwellings. It is worth noting that a significant number of people living in non-private dwellings are work-poor. However, the reasons for being work-poor vary considerably. Students living in hostels are work-poor for positive reasons, whereas being in prison is not a positive reason.

[13] It needs to be noted that there could be other people outside the 25-59 age group living in these households. For more details regarding this calculation see Callister (2000b).

increased in the time of strong job growth between 1991 and 1996 suggests that prime-aged people living in households with someone already in paid work took many of the new jobs. Table 3 also shows very strong growth between 1986 and 1991 in the proportion of households where 3 or more people were aged 25-59 and no one was in paid work. This growth continued between 1991 and 1996. However, the actual numbers are relatively small. Finally, also of importance, the data show that households were far more likely to be work-poor when there was only one prime-aged person living in them. This group includes work-poor sole parent families and work-poor people living on their own.

Table 4 – Number of households with people aged 25-59 living in them, 1986-1996

	Number in household aged 25-59						
No job households	1	2	3	4	5	6+	Total
1986	84,999	15,402	1,050	192	51	30	101,724
1991	122,394	43,065	3,246	594	159	60	169,518
1996	127,131	46,803	5,724	1,617	540	333	182,148
All job households							
1986	191,241	301,767	10,725	1,101	117	30	504,981
1991	189,942	305,313	11,115	1,161	135	27	507,693
1996	218,253	357,168	18,342	2,502	246	72	596,583
Total households							
1986	276,240	479,364	23,913	3,549	558	153	783,780
1991	312,333	500,202	30,186	4,893	822	240	848,679
1996	345,387	540,306	43,335	9,129	1,812	726	940,695

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

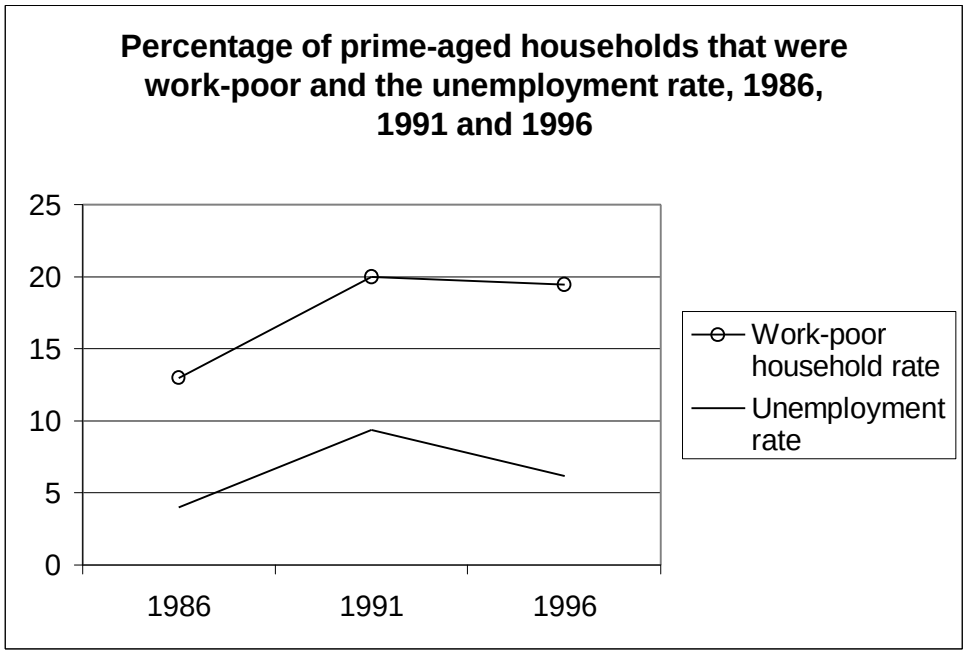
Table 5 – Percentage of households with people aged 25-59 living in them which had every one in paid work and no one in paid work, 1986-1996

	Number in household aged 25-59						
No job households	1	2	3	4	5	6+	Total
1986	30.8	3.2	4.4	5.4	9.1	19.6	13.0
1991	39.2	8.6	10.8	12.1	19.3	25.0	20.0
1996	36.8	8.7	13.2	17.7	29.8	45.9	19.4
All job households							
1986	69.2	63.0	44.9	31.0	21.0	19.6	64.4
1991	60.8	61.0	36.8	23.7	16.4	11.3	59.8
1996	63.2	66.1	42.3	27.4	13.6	9.9	63.4

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Figure 5 shows that while the proportion of work-poor households lifted substantially over the period of major restructuring in the mid 1980s through to 1991 it did not drop back much in 1996 even though unemployment was much lower. This fits a theory of hysteresis of work-poor households seen recently in most OECD countries. That is, the proportion of work-poor households lifts during a recession and does not come back to pre-recession levels in subsequent periods of employment growth. However, whether this would hold in a subsequent recession is unclear.

Figure 5



Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Given that changes in work and living arrangements can occur at the same time, and may also be linked, Table 6 uses the underlying data in Table 4 to show changes in proportion of various households.

Table 6 – Percentage distribution of households with people aged 25-59 living in them, 1986-1996

	Number in household aged 25-59						
No job households	1	2	3	4	5	6+	Total
1986	83.6	15.1	1.0	0.2	0.1	0.0	100.0
1991	72.2	25.4	1.9	0.4	0.1	0.0	100.0
1996	69.8	25.7	3.1	0.9	0.3	0.2	100.0
All job households							
1986	37.9	59.8	2.1	0.2	0.0	0.0	100.0
1991	37.4	60.1	2.2	0.2	0.0	0.0	100.0
1996	36.6	59.9	3.1	0.4	0.0	0.0	100.0
Total households							
1986	35.2	61.2	3.1	0.5	0.1	0.0	100.0
1991	36.8	58.9	3.6	0.6	0.1	0.0	100.0
1996	36.7	57.4	4.6	1.0	0.2	0.1	100.0

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Table 6 show there was some small growth between 1986 and 1996 in the number of one prime-aged adult households and those with 3 or more people aged 25-59 living in them. Other census data shows there was some growth in multi-family households as well as growth in number of adult children living at home in this period. These trends may reflect changes in access to affordable housing, as well as the growth of long-term unemployment

and also reflects the growth sole parenthood. In the latter situation, based on Australian research, some of the ex-partners of sole mothers may have returned to living at home with their own parents (Birrell and Rapson 1998). The rapid increase in the number of new migrants in the mid-1990s is also likely to have contributed to the number of families in shared accommodation. Many of these new immigrants found it difficult to move into employment so are more likely to be no job households.

Yet, decomposing the employment changes and the household components of the growth in work-poor households between 1986 and 1996, indicates that of the 6.4 percentage point change, only about half a percent could be directly attributed to change in household composition. The major driver in this period was a change in employment within households and mainly households with two working aged adults in them. This can be seen by the strong increase in the proportion of work-poor two person households while at the same time the overall proportion of two person households declined (Table 6).

Table 6 also shows that the most common household type containing prime aged people was that of two people. While some of these will not have been couples (such as a two person flat) and some would have been same sex-couples, by far the greatest proportion were opposite sex couples.

Given the long term trends in employment of men and women, and the fact that in the past most prime-aged men and women lived in married couple households, it clear that there has been a long shift in New Zealand away from couples where the male worked full-time and the female was not in paid work (mixed work couples). Table 7 shows the shift away from mixed work couples continued to take place between 1986 through to 1996. While all other work arrangements in this period grew (including non-traditional mixed work couples) the strongest growth was for couples where both worked full-time and couples where both partners were not employed. Of note, was the relatively small rise in situations where the male worked full-time and the female part-time, an issue that is revisited later in the paper.

Table 7 -Couples in the 25-59 age group by paid work status of both partners, 1986-1996[14]

% in each group

	1986	1991	1996	1986-1996
Male full-time, female full-time	37.5	37.9	40.9	3.4
Male full-time, female part-time	23.8	22.1	24.2	0.4
Male full-time, female not in paid work	31.7	24.8	18.9	-12.8
Male part-time, female full-time	1.0	1.4	2.1	1.1
Male part-time, female part-time	0.8	1.0	1.5	0.7
Male part-time, female not in paid work	1.1	1.1	1.5	0.4
Male not in paid work, female full-time	1.1	2.7	2.6	1.5
Male not in paid work, female part-time	0.4	1.4	1.5	1.1
Male not in paid work, female not in paid work	2.7	7.7	6.9	4.2
n=	465,057	480,660	516,195	
Total New Zealand unemployment rate - %	4.0	9.4	6.2	2.4

Source: Derived from the Census of Population and Dwellings and the HLFS, Statistics New Zealand

As will be shown in subsequent analysis, women are the least likely to be working full-time when they have young children and this is particularly pronounced when children are under one year of age. Yet, the census data show a rise in the proportion of couples (no restriction on age of parents) with a child under one where both worked full-time between 1986 and 1991 (Table 8). There was a small further rise to 1996.[15] However, research (Callister, 1995) does indicate it is likely that some of the women (and possibly some men) were actually on parental leave in this period.[16]

However, more significant was the rise in the proportion of work-poor couples with a child under 1 year of age between 1986 and 1991. While this subsequently declined between 1991 and 1996, in 1996 it was still far higher than in 1986.

Table 8 – Work patterns of couples with a child under 1, 1986-1996

	Both full-time	Neither in work
1986	9.0	4.7
1991	10.3	15.7
1996	11.7	12.2

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Finally, one effect of relatively small declines in the proportion of work-poor households when there are periods of strong employment growth is that while official measures of unemployment may indicate strong job growth, the proportion of the population in receipt of a transfer payment may only show a slight decline. Table 9 shows the number of people receiving one of three types of transfer payment as a percentage of the population aged

[14] Both partners needed to be within this age group.

[15] While focussing on couples with a child under five, the Childcare Survey indicates the proportion of couples where both worked full-time declined slightly between 1996 and 1998 (Callister 1999).

[16] In 1986 the job protection available from parental leave legislation were extended and this may have had a slight impact on the rise between 1986 and 1991 despite it being an overall period of job loss.

15-59. While there may be some people on sickness, unemployment or sole parent benefits who were aged 60 or more, most of the beneficiaries would have been in the 15-59 age group. Table 9 shows a doubling in the proportion of people receiving these transfers between 1986 and 1991, the period of major job loss. However, in the period of major job increase between 1991 and 1996, which also included significant cuts of benefits, there was only a small decline in this percentage.

Table 9 - Number of people receiving selected income support payments as a percentage of the population aged 15-59

	Unemployment / Sole parent / sickness	Unemployment / Sole parent
1986	7.5	6.0
1991	15.1	12.6
1996	14.7	11.3

Source: Derived from the Census (March) and Social Welfare data (March year in 1986, June year in 1991 and 1996)

HLFS data – 1995 to 2000

A new data series produced from the Household Labour Force Survey shows broad trends in work-rich and work-poor households from 1995 onwards. In this analysis, households where all members were outside the ages of 18-64 years have been removed.[17] [18] This is a very broad age group and as will be shown using census data it does disguise some important differences by life cycle stage. It also must be noted that the period 1995 onwards was far more stable in employment terms than the previous ten years but changes in household form could still be taking place. Nevertheless, this new series provides an idea of inter-censual changes and in the longer term will allow researchers to assess the effects of either strong employment growth or significant job loss that may occur in the future. In this section, I first briefly outline broad trends in work-rich households. However, the main focus is on work-poor households.

Figure 6 combines all household types (couples, sole parents, living alone etc) to show an overall trend in work-rich households (all adults in work). In this analysis any hours of work are included so, in fact, some households where all adults were working very low hours may be included. The issue of whether "work-rich" households are really work rich is addressed in a subsequent section.

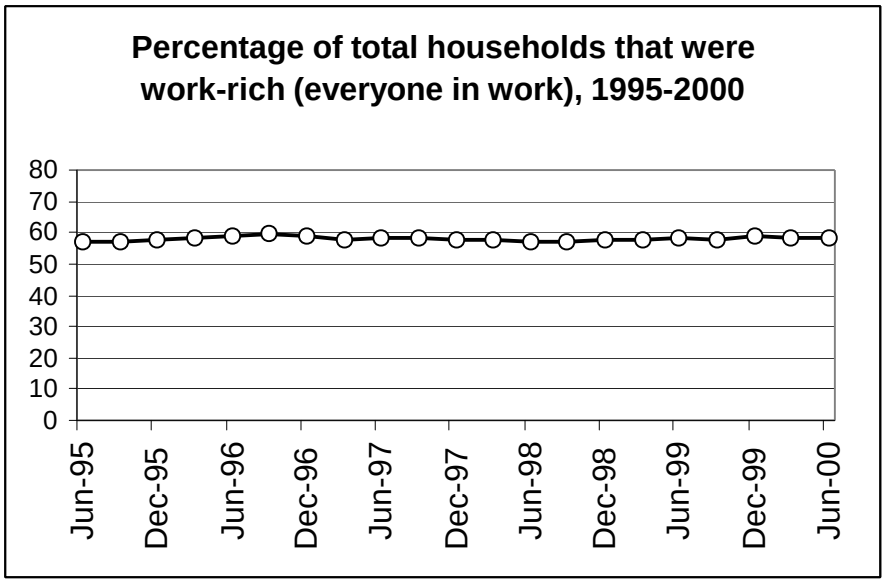
Figure 6 shows remarkable stability in the proportion of households that could be considered work-rich over this period. This is despite some variation in the unemployment

[17] The furthest back Statistics New Zealand can supply household statistics is to the June 1995 quarter. This is because integrated weighting of the HLFS only applies from then on. Integrated weighting enables household statistics to be produced by giving each individual in the same household the same weight. The sum of the individual weights match the estimated working-age population which are calculated using 1996 Census data and the most-up-to-date figures available on births, deaths and long-term migration.

[18] Given the use of the census in providing weightings it is not surprising that the March 1996 census figure of 19.4 percent of households being work-poor is close to the March 1996 HLFS figure of 18.4 percent.

rate over this period (see Figure 13). Certainly, in this period there is no evidence of a continuation of the long-term growth in work-rich households.

Figure 6

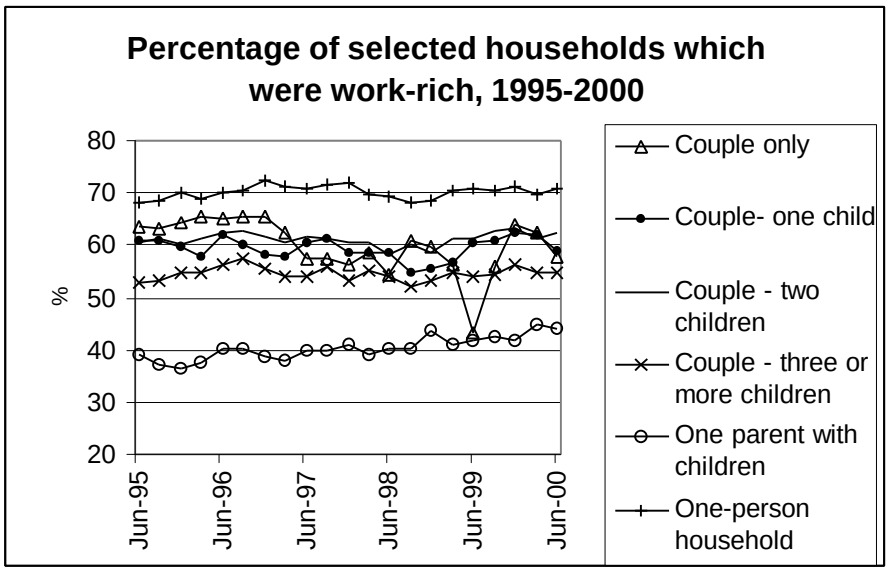


Source: Derived from HLFS, Statistics New Zealand

Figure 7 shows the proportion of selected household types that were work-rich. The household type most likely to be work-rich over this period was that of one person. Around 70 percent of these people were in employment. At the other end of the spectrum, were the one-parent households.[19] However, over the period shown there was an increase in employment. This rise is discussed in a subsequent section. The couple only line shows some marked, but unexplained variations, but is of a similar level to that of couples with children. The figure also confirms the findings of other studies that show the greater the number of children in a household the less likely the household is to be work-rich. This, in part, reflects that mothers are less likely to be employed as the number of children in a family increases.

[19] One-parent families can also live in other household types. Examples, include extended families or two sole parents in one household.

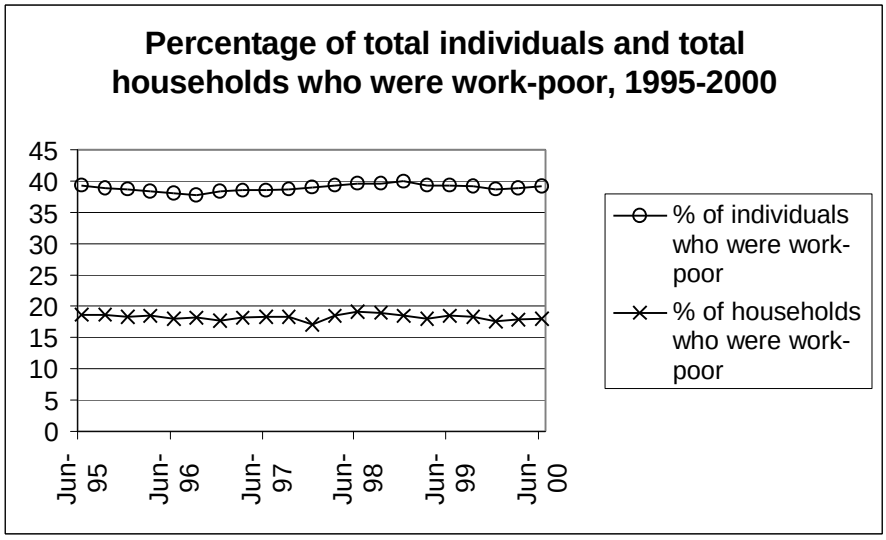
Figure 7



Source: Derived from HLFS, Statistics New Zealand

Again, as a starting point for the analysis of work-poor households, Figure 8 combines all household types to show an overall trend in work-poor households (no adult in work). This is compared with the percentage of working aged individuals who were not in work over this period (unemployed plus non-labour force). It shows that the percentage of individuals who were work-poor was much higher than the percentage of households that were work-poor. This reflects the existence of mixed-work households. In many of these mixed work households the person not in work will have been in this status by active choice, such as studying or looking after children.

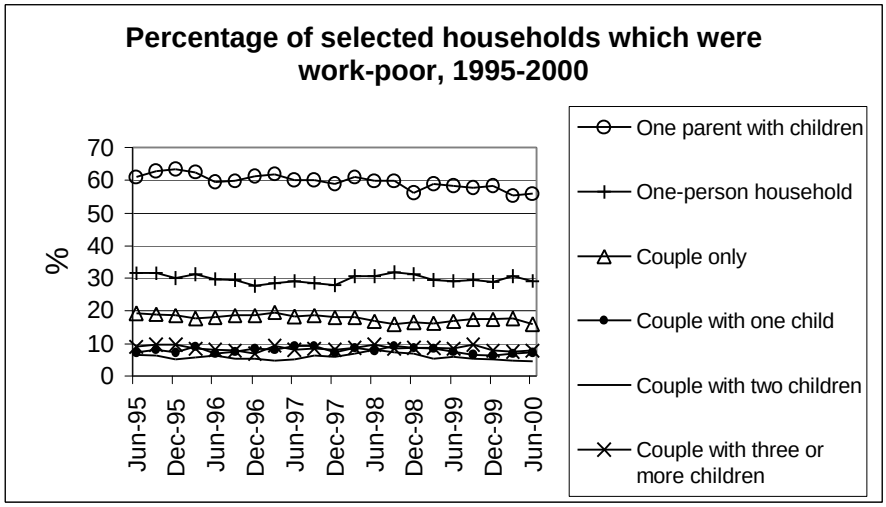
Figure 8



Source: Derived from HLFS, Statistics New Zealand

Figure 9 uses the same data source but shows a selection of work-poor household types.[20] It shows the percentage of households within each household type who were work-poor. A number of patterns are clear. First, in all years sole parents with dependent children were by far the household type most likely to be work-poor. However, as Wilson (2000) has already demonstrated the percentage that were work-poor has been declining. The next group most likely to be work-poor were those living on their own. Some of these people, as well as some sole parents, may be in this household type due to a work-poor couple separating. Interestingly, couples without children living with them were more likely to be work-poor than couples with children. As will be subsequently shown, part of this will reflect that couples without children tend to be at either end of the age spectrum and this increases their likelihood of being work-poor.

Figure 9

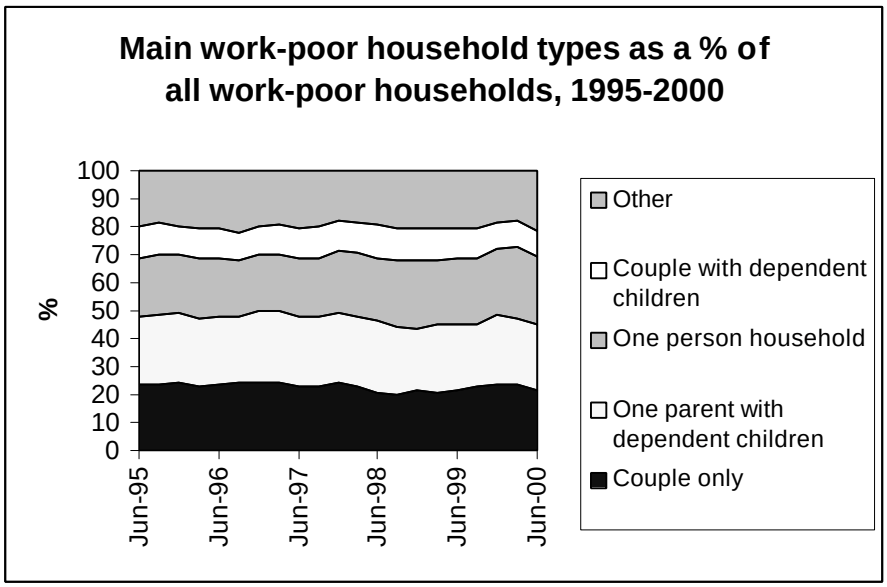


Source: Derived from HLFS, Statistics New Zealand

In order to provide a guide as to overall how important the households shown in Figure 9 are, Figure 10 provides an estimate of the main household types that make up the total group of work-poor households.

[20] For households with children there are three types. First, there are those with only dependent children. Second, there are households with a mix of dependent and adult children. The third group are those with only adult children. For this chart and many of the subsequent calculations I only include households with dependent children as this gives a clearer view of the workstatus of the parents in these families. However, as will be shown, households with adult children living in them are an important group and worthy of some investigation in the future.

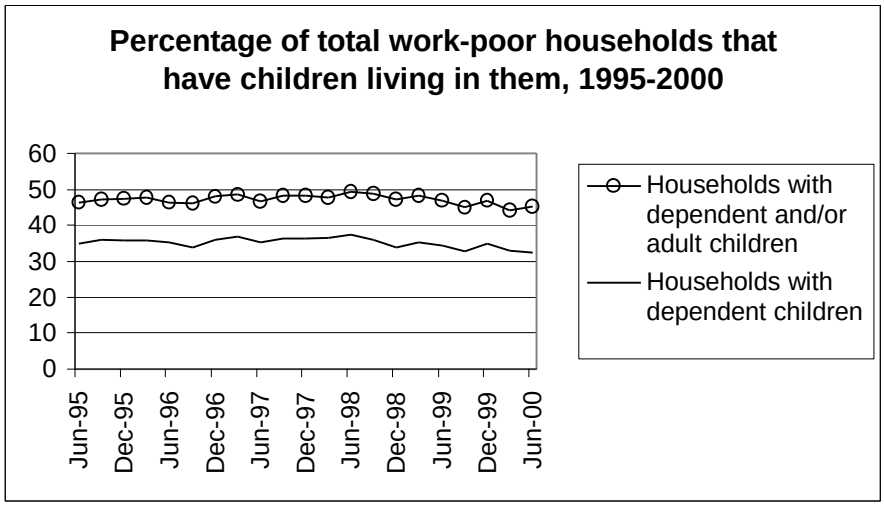
Figure 10



Source: Derived from HLFS, Statistics New Zealand

Figure 10 indicates that while one adult work-poor households were numerically an important group so too were work-poor couples. As also shown, a significant proportion of work-poor households have dependent children. Figure 11 shows that when combined, the work-poor sole parent and work-poor two-parent families result in a significant proportion of children living in a household with no parent in paid work. For example, just under half of work-poor households had a child, either dependent or an adult child, living in them. While for some this will be a temporary event, for others this will be a long-term situation. It is also a major contributing factor in child poverty. While policy makers have focussed on trying to move sole parents into paid work, less official attention has been given to moving one or both parents in two parent families back into work.

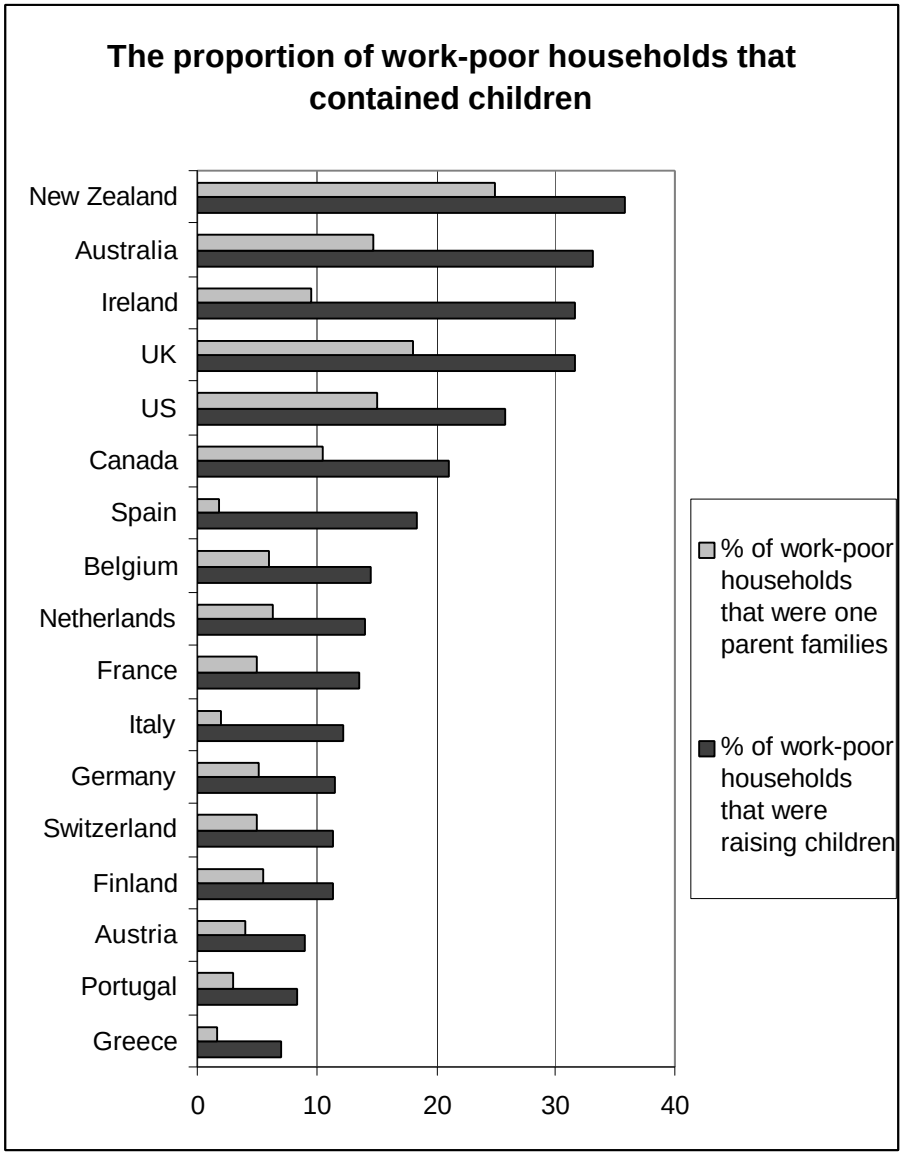
Figure 11



Source: Derived from HLFS, Statistics New Zealand

Figure 12 provides a comparison with major OECD countries. It indicates that when compared with other OECD countries in 1996 New Zealand had the highest proportion of work-poor households that contained children. That is, in New Zealand non-employment tends to be more concentrated on households with children than in other countries. In 1996, nearly 36 percent of work-poor households in New Zealand contained children. This compares with an OECD average of 18.7 percent (OECD 1998). Figure 12 also shows that in 1996 in New Zealand sole parent families formed a significant proportion of non-employed households. On average across the OECD single adult households without children formed 35 percent of work-poor households and couples without children a further 35 percent.

Figure 12



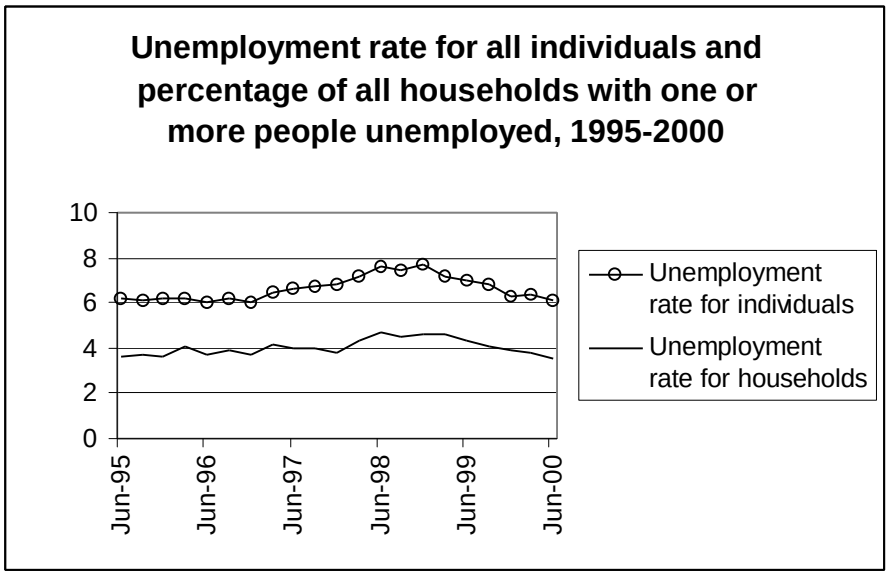
Source: 0ECD (1998) and HLFS. As always such international comparisons need to be treated with some caution due to differences in definitions and datasets.

One further way of assessing the relationship between children and work-poor households is calculating the percentage of households with a dependent child that were work-poor. In June 1995, 18.4 precent of such households were work-poor. On a quarterly basis, this peaked at 20.2 percent in June 1998, and dropped to 17 percent in June 2000. This is a similar level to that of the UK (Gregg and Wadsworth 2000). As such, it is much higher than other OECD countries and the OECD average. Like the UK, a major influence on this figure is the low rate of employment of sole parents.

Finally, the following figures indicate the proportion of individuals and households that could be classified as unemployed. Figure 13 firstly shows the unemployment rate across all working aged individuals and all households with members aged 18-64. Unlike

the total work-poor rate (unemployed plus non-labour force) shown in Figure 8, this chart shows a much stronger rise in the proportion of people seeking work in the middle of the period. It also shows a slightly stronger rise in the unemployment rate for individuals than for households in the period that unemployment increased. However, overall the two series closely track each other in this time period.

Figure 13

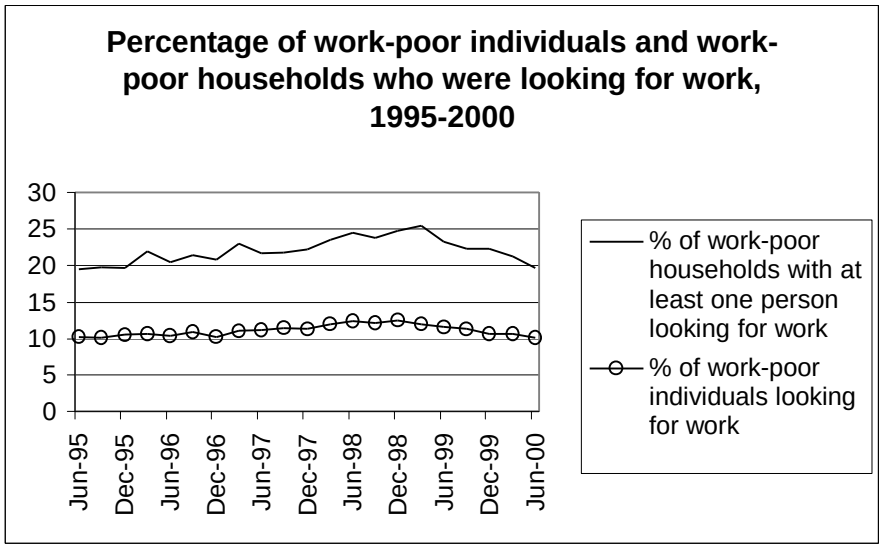


Source: Derived from HLFS, Statistics New Zealand

Figure 13 suggests some compositional effects in operation. That is, there may be a core of work poor households that remain in that state regardless of economic conditions. Other households move between employment states as employment conditions change.

Figure 14 narrows the target population and shows the percentage of individuals who were work-poor but who were looking for work as well as the percentage of households that were work-poor where one or more people within the household was unemployed. It is not surprising that the percentage of work-poor individuals looking for work was lower than the percentage of work-poor households where one or more people were looking for work. Again, this reflects the fact that many of the work-poor individuals will be living in mixed work households and will not have the same reasons or incentives to seek work.

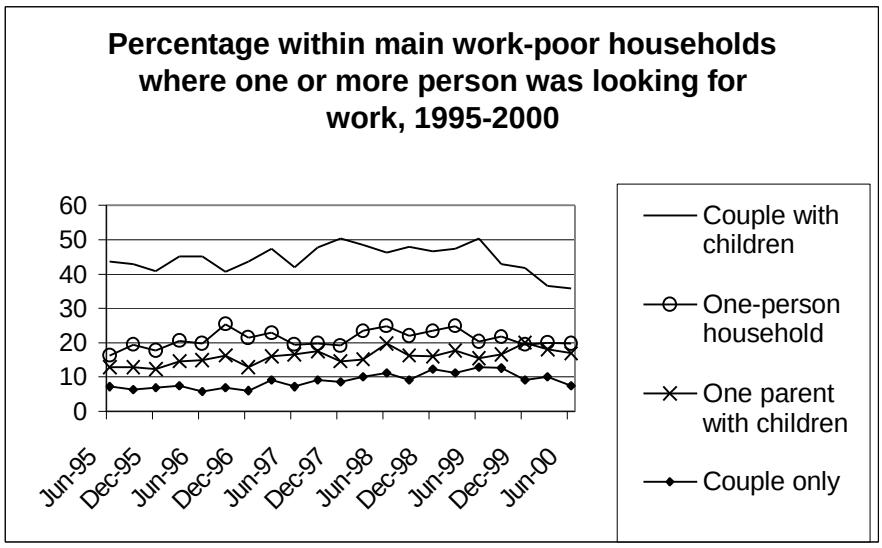
Figure 14



Source: Derived from HLFS, Statistics New Zealand

Figure 15 provides a finer analysis of Figure 14 by showing trends in the main work-poor household types. It is not clear why there was the relatively strong decline in the percentage of work-poor couple households with children seeking work in the latter part of the period. The figure also shows a slight rise over the period in the percentage of work-poor sole parents seeking work. When Figures 9 and 15 are compared they indicate that couples with children were not only less likely than other main household types to be work-poor, but when they were classified as being work-poor, a high proportion had at least one person seeking work. As will be shown subsequently, this reflects a number of factors but particularly age of both partners.

Figure 15



Source: Derived from HLFS, Statistics New Zealand

To summarise, the HLFS data from 1995 to 2000 show relative stability in the overall proportion of households in which everyone was in paid work and those where no-one was employed. In relation to no job households, while a significant proportion of sole parent households were work-poor, other household types were an important component of total work-poor households. This includes adults living on their own and couple only households. The data also suggests that the type of household, including whether dependent children are present, may have some influence on whether household members actively seek work.

However, the data shown is somewhat crude. For instance, in terms of work rich households it is not known what proportion have all members working full-time. In addition, the analysis only uses a broad age span. In order to better understand the characteristics of work-rich and work-poor households census data again is useful.

Given that the characteristics of work-poor sole parents are relatively well known, the following section focuses primarily on the characteristics of prime-aged couples.[21]

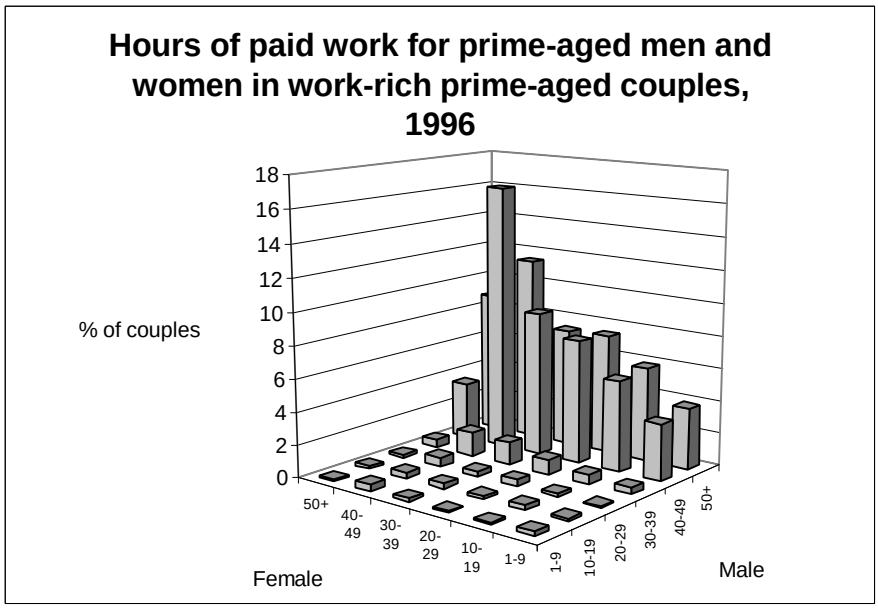
Are work-rich couples actually work-rich?

Classifying couples as being work-rich if both are in work runs the risk of disguising considerable variation in hours of both partners. Some work-rich couples may actually be relatively work-poor if both partners work part-time. Couples in which both partners work full-time may have quite different characteristics to those where one partner works part-time. In addition, it is possible for the total hours worked by a couple with only one "workaholic" employed partner to be longer than a couple where both worked relatively low hours.

Figure 16 shows in more detail than Table 7 the hours of paid work of both partners of prime-aged work-rich prime-aged couples in 1996. It shows the single largest category was where both partners worked in the 40-49 hour range. The second largest was where the male worked 50 or more hours per week and the female worked 40-49 hours. So a significant proportion of work-rich couples were actually work-rich and only a few had very low total family hours of work. However, Figure 16 does show that a significant number of women in work-rich couples did work part-time, including 8.3 percent who worked under 10 hours per week. Yet, at the same time, by far the greatest proportion of women working under 10 hours had a partner working 40 or more hours per week (88 percent), with 46 percent having a partner working 50 or more hours per week. So even though there was a major inequality of hours between partners, total hours of work within families could still be very high. Whether prime-aged women in couples dominate part-time work is examined later in the paper.

[21] More research could be usefully undertaken on work-poor people living in other household types such as living alone, living with ones parent(s) and living in non-private dwellings.

Figure 16



Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Table 10 shows the changes in the distribution of usual weekly hours worked by both partners in prime-aged couples between 1986 and 1996.[22] It shows the decline in situations where men worked between 30 and 40 hours per week and their partners worked 1 to 49 hours per week. There was growth in all other combinations, but the growth was the strongest for men working 50 or more hours per week. Other data show this shift to longer hours for a group of prime aged men included families with young children (Callister 2000b). Yet, New Zealand and overseas research also shows an increased diversity in the working hours of men in couples with young children (e.g. Kaufman and Uhlenberg 2000).

Table 10 - Change in the percentage distribution of hours of paid work by both partners in work-rich prime-aged couples, 1986 to 1996

		Female hours					
		1-9	10-19	20-29	30-39	40-49	50+
	1-9	0.2	0.1	0.1	0.1	0.2	0.1
	10-19	0.1	0.1	0.1	0.1	0.2	0.2
Male	20-29	0.1	0.0	0.1	0.1	0.2	0.2
hours	30-39	-0.2	-0.6	-0.7	-1.3	-0.4	0.1
	40-49	-0.4	-2.4	-2.0	-2.5	-1.7	1.3
	50+	1.2	0.8	1.2	0.9	2.7	1.7

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

In Table 11, the more detailed data for 1996 are regrouped back into the traditional full-time and part-time categories, but a more detailed breakdown of age is provided. The

[22] For the underlying data see Callister (2000b).

table demonstrates that in all age groups, but particularly 30-54, many couples contained one part-time earner and usually this was the female partner.

Table 11 – The labour force status of work-rich couples by age of female partner, 1996

	% of all couples					
Age of female partner	Both full-time	Male full-time / female part-time	Male part-time / female full-time	Both part-time	Total both working	Total couples
25-29	46.4	16.1	1.8	1.0	65.3	75,084
30-34	34.0	25.1	1.7	1.2	62.1	95,721
35-39	35.6	29.4	1.9	1.4	68.4	97,092
40-44	44.7	26.4	2.3	1.5	74.9	87,696
45-49	47.4	22.9	2.6	1.6	74.5	82,482
50-54	39.5	21.1	2.9	2.1	65.6	62,811
55-59	24.0	15.8	2.9	2.9	45.7	51,870

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Are work-poor couples actively seeking work?

As already shown in the data drawn from the HLFS, not all work-poor couples have one or both partners looking for work. This is further illustrated in Table 12. The table shows that younger people are more likely to be actively seeking work. The table also shows that the proportion of couples who were work-poor rises strongly in the 50 and over age group, with the proportion where neither were seeking work also rising sharply. Given that, on average, men in couples are older than their partners, many of the men would have been 60 or over.

Table 12- The labour force status of work-poor couples by age of female partner, 1996

	% of all couples					
Age of female partner	Both unemployed	Male unemployed / female non labour force	Male non labour / female unemployed	Both non-labour force	Total neither employed	Total couples
25-29	1.2	2.1	0.5	3.6	7.4	75,084
30-34	1.1	1.9	0.4	3.9	7.3	95,721
35-39	0.9	1.5	0.4	3.6	6.3	97,092
40-44	0.8	1.1	0.4	3.8	6.1	87,696
45-49	0.6	0.9	0.4	4.6	6.5	82,482
50-54	0.5	1.1	0.4	8.8	10.7	62,811
55-59	0.3	1.1	0.4	23.2	25.0	51,870

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Both Tables 11 and 12 indicate that age is an important variable as to whether couples are work-rich or work-poor. A strong part of this relates to ages of childbearing and rearing. If a dynamic picture rather than a static one could be shown, some couples will have passed through a number of work (and living) arrangements over their whole life cycle.

Education and the polarization of work amongst prime-aged couple households

The British research of Gregg *et al* (1999) suggests that while there is still much left to explain as to why some couples are work-rich or work-poor, age and education are of some importance. US research also shows that within work-rich couples, those couples with the highest combined mean hours of work also have the highest levels of formal education (Jacobs and Gerson 2001). However, it is very complex when dealing with age and employment status of both partners as well as educational status of both partners. Therefore, in the following analysis just two extremes are illustrated. These are:

- Both partners work full-time
- Both partners are not in the labour force

Education is an important variable in employment patterns for individuals. However, as also shown, education appears to have some influence on a person's living arrangement. In particular, in 1996 people with no formal qualifications were less likely to live in a couple household. This needs to be kept in mind when considering the data.

Another important point to keep in mind is that due to a declining proportion of individuals having no formal qualifications there are now fewer education-poor couples. For example, when considering couples who were both in the 25-34 age group in 1986, 14 percent were in a situation where both had no formal qualifications (Callister 1998b). At the other extreme 4.2 percent both had a degree or higher qualification. In 1996, in 9.7 percent of couples neither had a formal qualification, while 7.1 percent both had degrees. However, over this time the strong tendency for couples to have similar levels of qualifications had changed little.

A further breakdown of 1996 census data by age shows, not unexpectedly, that the proportion of couples where neither partner had a formal qualification increases strongly across age groups (last column Table 13).

Table 13 shows the distribution of couples who worked full-time across three qualification groups. While it does show that couples with no formal qualifications were under-represented and couples where both had formal qualifications were over-represented, in the older age groups a considerable proportion of work-rich couples were not formally qualified. However, it appears that having no formal qualifications was more of a penalty amongst younger couples.

Table 13 – Qualifications of both partners where both were working full-time, 1996

Age of female partner	Both no qualifications	One partner no qualification	Both qualifications	Total	N=	% of all couples where both had no qualification
25-29	5.4	20.1	74.5	100.0	34,830	10.1
30-34	8.2	23.0	68.7	100.0	32,541	10.7
35-39	10.8	26.2	63.0	100.0	34,584	11.6
40-44	12.5	28.7	58.7	100.0	39,240	14.3
45-49	16.6	32.1	51.3	100.0	39,108	19.6
50-54	19.3	33.3	47.4	100.0	24,825	24.0
55-59	21.7	33.5	44.8	100.0	12,450	27.4

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

This education penalty is illustrated more clearly in Table 14 with a third of younger work-poor couples having no qualifications. However, a sizable proportion of work-poor couples both had qualifications. Other data indicate that this group will have included some well qualified Asian immigrants who found it difficult to move into employment. It is also highly likely that a significant proportion of the younger well-educated work-poor couples will not have remained in that status for a long period.

Table 14 - Qualifications of both partners where both were not in the labour force, 1996

Age of female partner	Both no qualifications	One partner no qualification	Both qualifications	Total	N=	% of all couples where both had no qualification
25-29	32.8	27.7	39.5	100.0	2,736	10.1
30-34	31.1	26.7	42.2	100.0	3,711	10.7
35-39	32.4	27.4	40.2	100.0	3,519	11.6
40-44	35.7	26.0	38.3	100.0	3,309	14.3
45-49	39.2	30.6	30.1	100.0	3,801	19.6
50-54	43.9	31.8	24.3	100.0	5,523	24.0
55-59	39.9	33.2	27.0	100.0	12,015	27.4

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand

Some exploratory analysis by geographic area suggests, that as in the UK, location is of some importance in explaining the difference between couples being work-rich or work-poor (Callister 1998c). However, it is not clear as to whether work-poor couples tend to congregate in work-poor areas or whether work-poor areas create work-poor couples. In addition, both UK and New Zealand research show that ethnicity is associated with the work status of couples. For instance, in 1996 couples where one partner was Maori were more likely to be work-poor than couples where neither was Maori. Even more likely to be work-poor were couples where both partners were Maori (Callister 2000a).[23]

[23] It would be possible to further refine this analysis by assessing the work characteristics of couples when both sole and mixed Maori ethnicities were considered. However, further complicating this, ethnicity also appears to be factor as to whether couples form.

However, ethnicity itself is tied up with location, education, and age. It is highly likely that any multi-variate analysis carried out on standard variables in New Zealand would be similar to that of Britain, where much of the variation in the employment patterns of couples and other household's remains unexplained.

Income and the work status of couples

While the reasons for couples becoming work-rich or work-poor are still very uncertain, it is to be expected that work-rich couples would, on average, earn much higher household incomes than work-poor couples. Table 15 draws on unpublished data produced by Statistics New Zealand on couple households to show real incomes from the early 1980s through to the mid 1990s. The data source is the Household Economic Survey. The data shows market income and there is no age restriction on the couples. The table shows a major gap between the average incomes of work-poor and work-rich couples and that this gap increased between 1982 and 1996. Of particular interest was the significant decline in real income of work-poor couples.

However, averages do disguise some significant variations. Census data (total income not just market income) show that there were low-income work-rich prime-aged couples and, assuming the data is correct, a small number of relatively high income work-poor couples. For example, in 1996 in 11 percent of prime-aged work-rich couples both partners earned less than $20,000 per year and in 1.1 percent of work-poor couples both partners stated they earned $40,000 or more in the previous year.[24] The diversity of incomes was particularly evident amongst the work-rich couples. Some of these will include the "working-poor" whose incomes will be very near to, or even possibly in some situations below, what could be obtained on benefits.

Table 15 also shows that, on average, mixed work couples where it was the male who was in work had higher incomes than if it was the female who was employed. In addition, this gap increased substantially between the early 1980s and the mid 1990s. The reasons for this are not clear. However, the average income gap between those couples with just the female in work and work-poor couples was high throughout the whole period. At this very simple level of analysis, there appears to be a strong incentive for the female partner in work-poor couples to search for work.

Table 15 – Trends in average real household market income of couple households by employment status of both partners, March $1996

	1981/82	1985/86	1990/91	1995/96
Neither in work	11,898	13,396	10,075	10,522
Female in work	40,174	35,532	41,408	32,352
Male in work	45,413	44,774	47,900	51,356
Both in work	62,300	55,249	62,062	65,249

[24] This may reflect that, for various reasons, some had moved from a work-rich status to a work-poor status during the year. It emphasises the difficulty of drawing only on cross-sectional data.

Total	47,399	44,046	44,625	48,816

Source: Statistics New Zealand, HES

The diversity of income levels (and hours of work) within work-rich couples raises a question of just how many work-rich couples might be considered dual-career couples versus dual-job couples. The following data expand on earlier research into the division of couples into dual job and dual career couples (Callister 1998a). Table 16 provides a range of estimates based on various possible definitions of careers.

Table 16 – "Dual-career" couples as a percentage of all employed prime-aged couples, 1996

	Number	%
Both managerial, professional or technical - All hours	78,048	23.2
Both managerial, professional or technical – Both full-time	52,602	15.6
Both managerial or professional - All hours	45,750	13.6
Both managerial or professional - Both full-time	31,575	9.4
Both earning more than $40,000 - All hours	27,165	8.1
Both earning more than $40,000 – Both full-time	22,023	6.6
Both earning more than $70,000 – Both full-time	3,738	1.1

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.

Based on these estimates, dual-career couples could represent anything from one to 23 percent of work-rich couples. However, whatever classification system is chosen, it is clear that in 1996 dual career-couples did not represent a majority of work-rich couples. This is important as many popular books and academic research on working couples focus on the dual-career couples and how they can best balance work and other responsibilities such as looking after children or elderly parents. In contrast, the problems and challenges facing dual-job couples will often be quite different and may require different solutions. For example, couples with high incomes can purchase private individual solutions while low and middle income couples often need more "family-friendly" support from wider society.

It needs to be remembered that these data provide only a snapshot. Not all work-rich couples will stay work-rich long term. In addition, those work-rich couples who have low (or negative) incomes include the self-employed such as farmers. Not only will these incomes change quite significantly over economic cycles, but they may also disguise the fact that some low-income couples may have high levels of assets.

Focussing again on work-poor couples, Table 17 shows a selection of sources of income in the previous year. The fact that only a fifth of men and fifteen percent of women had income from salaries and wages in the previous year suggests that work-poor status for a significant number of couples may have been relatively long term.

Table 17 - Sources of income in the previous year for prime-age work-poor couples, 1996

*% who received income from stated source**

	Male income	Female income	Both partners income
Salary or wages	21.4	14.7	8.4
Sickness benefit	13.1	11.8	9.6
Domestic purposes benefit	1.1	5.1	0.5
Unemployment benefit	40.3	37.1	33.2
ACC regular payments	7.1	1.7	1.2

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.
* These sources of income are not exclusive with a person potentially having a range of income sources over a year.

A number of other important patterns can also be observed. For example, the higher rate of men than women being on ACC payments reflects the fact that men tend to be in more accident-prone occupations. In Table 17, the Domestic purposes benefit data for women, and to a lesser degree for men, indicates that there were some work-poor sole parents who had formed work-poor couples in the previous year.[25] If this is the case, the data also suggests that, with many prime-aged men not in paid work, the re-partnering of sole mothers often does not reduce children's dependency on government transfer payments.

Finally, while not directly linking polarisation of work in families to changes in income distribution, Martin (2000) shows that while both changes in family type and changes in labour force status within families have an impact on changes in income inequality, it has been changes in labour force status that have had the most impact since the 1970s. This supports the idea that changes in work between families and households have been strongly influenced by labour market change within households and families.

The growth of part-time work: A key factor in the growth of work-rich households?

In this section the issue of whether part-time work is primarily being taken up by people in households with one stable full-time income earner is explored.

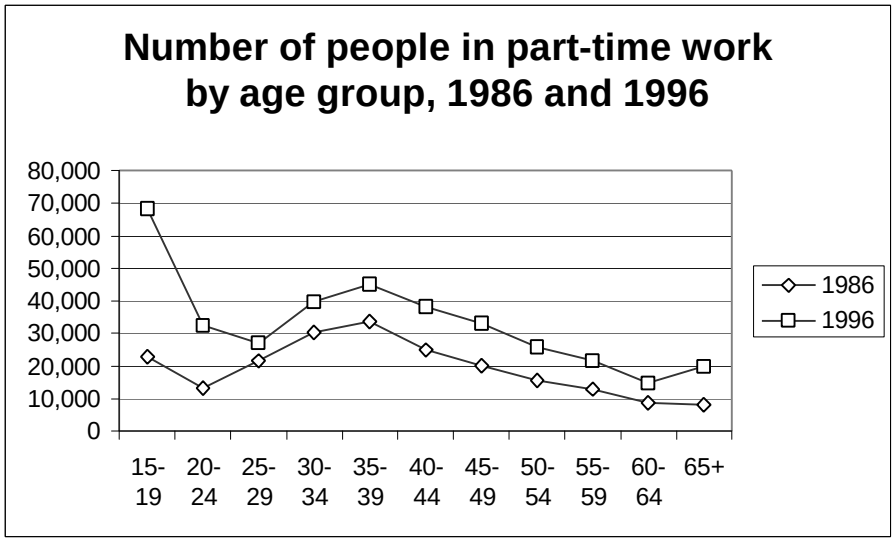
First, overseas research would suggest that, in the past, the growth in part-time work amongst women in couples was a key factor in the growth of work-rich couples. For example, Costa (2000) notes a two-stage growth in the employment of wives in the US. The first stage took place between the 1950s and the 1970s when there was very strong growth in part-time work. This was the time that married women were rapidly moving into areas such as clerical work and teaching. Given that almost all their male partners were in full-time work this created a first type of work-rich couple. However, Costa notes that since the 1970s more women have been gaining tertiary qualifications and moving into full-time work in career type jobs. She also shows that these women tend to be with well-educated men who also work full-time. In fact, the proportion of women living in well-educated couple households and working part-time declined in the US between the 1970s

[25] Or had been claiming a sole parent benefit while living in a couple household.

and the 1990s. So in this next stage, the second type of work-rich couple was created. Jacobs and Gerson (2001) illustrate this by showing how the mean total hours of work-rich couples increased from 78 hours in 1970 to 81.3 hours in 1997. The two stage of the development of work-rich couples is also likely to have taken place in New Zealand. Given this pattern, then it seems unlikely that prime-aged women living in couples will have taken most new part-time jobs in the last couple of decades. The following section tests this.

As background, Figure 17 shows the growth between 1986 and 1996 in the number of people employed part-time in each age group. It shows that in 1986 the largest number of people who worked part-time were in the 30-44 age groups. But by 1996 the largest single group was those in the 15-19 age range. Based on US research it may well be that many of these young people do live in work-rich households (Lerman 2000), but this has not been tested in New Zealand. Instead the living arrangements of prime-aged part-time workers are assessed.

Figure 17



Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.

Table 18 shows the percentage of prime-aged workers who worked part-time by their living arrangement in both 1986 and 1996. It indicates that women in couples, and particularly mothers, were highly over-represented amongst prime-aged part-time workers. In 1986, 79 percent of part-time prime-aged workers were women in couples (couple only plus couple with children). However, while still very high, by 1996 this had declined to 67 percent. Table 18 shows that in the period 1986 to 1996 part-time work spread across to men in a range of living arrangements and also into a wider range of living arrangements for women. These data suggest that part-time work is no longer just an "optional" extra for partnered women with young children. For some prime-aged people part-time work will be taken on through choice but for others it will be the only job available.

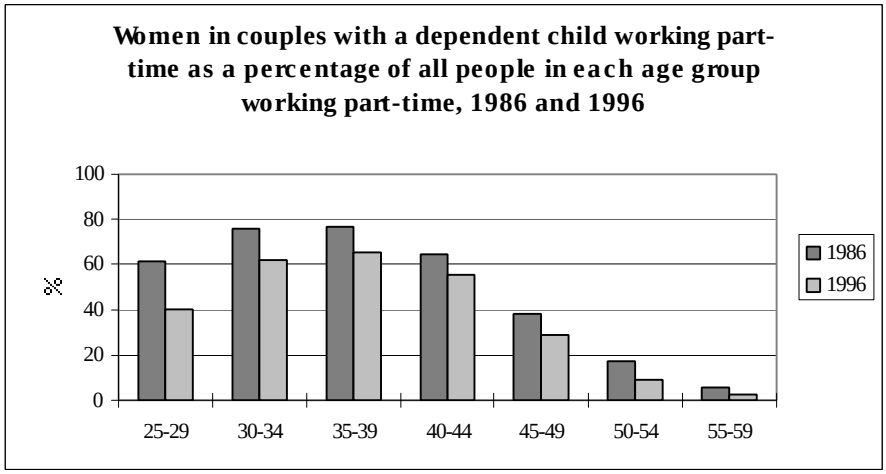
Table 18 – Distribution (%) of prime-aged part-time workers by sex and living arrangement, 1986 and 1996

	1986			1996		
	Males	Females	Total	Males	Females	Total
Couple Only household	2	12	14	4	15	19
Parent in Couple Family*	6	67	73	8	52	60
Sole Parent	0	4	4	1	8	9
Adult Child in Family	1	1	2	1	1	2
Living with Family or Families, not Related	1	2	3	1	0	1
Living Alone	1	1	2	2	3	5
Living in a Non-Family Household	0	0	0	2	2	4
Living in a Non-Private dwelling	1	1	2	1	0	1
Total	13	87	100	19	81	100

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.
* includes non-dependent children

Figure 18 brings in a finer age analysis and narrows the group to prime-aged mothers with dependent children. Again, it shows while this group were over-represented in both 1986 and 1996 amongst part-time workers in many age groups their dominance declined over the decade.

Figure 18



Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.

Table 19 provides a basic way of further analysing part-time work amongst women living in couples. It shows the number, and percentage, of prime-aged women working part-time time and living in a couple by the labour force status of their male partner.

Table 19 – Number and percentage of women in prime-aged couples who worked part-time by male labour force status, 1986 and 1996

	Total		%	
Male employment status	1986	1996	1986	1996
Full-time Employer of Others	19,119	22,452	16	16
Full-time Self Employed and Not Employing Others	16,536	22,626	14	16
Full-time Wage or Salary Earner	74,166	76,485	64	55
Full-time Unpaid Worker in Family Business	213	1,443	0	1
Part-time Employer of Others in Own Business	306	2,367	0	2
Part-time Self Employed and Not Employing Others	972	792	1	1
Part-time Wage or Salary Earner	2,286	3,594	2	3
Part-time Unpaid Worker in Family Business	48	606	0	0
Unemployed and seeking work	705	2,346	1	2
Non-labour force	1,200	5,238	1	4
Not specified	564	2,262	0	2
Total	116,133	140,214	100	100

Source: Derived from the Census of Population and Dwellings, Statistics New Zealand.

The table confirms that by far the highest proportion of female part-time workers who were in a couple did have a male partner in full-time work. However, as a proportion of part-time workers, women with a male partner who was in full-time work declined over the period 1986 to 1996. This was brought about solely by a decline within couples where the male was a full-time employee.

The data in Table 19 provides some layers of complexity to the "added female part-time worker" theory. The growth in part-time work amongst women was, in fact, spread across a wide range of households and family working arrangements. For instance, there was growth in partnered women working part-time where their male partner was self-employed, a small, but significant, growth in those where their partner was not employed and growth in part-time work amongst sole mothers. It is highly likely that in these quite different situations, the women's motivation for being in part-time work was varied.

Finally, given that education has often been seen as an important factor influencing whether women in couples work part-time and the fact that part-time work amongst such women is at its peak in the 35-39 age range, I explored the educational characteristics of couples where the male worked full-time and the female worked part-time, worked full-time or was not in the labour force. Just based on the female qualifications, it showed that within the group of women who had degrees about equal proportions worked part-time, full-time or were not in the labour force. However, at the other education extreme, amongst women with no formal qualifications full-time work was the most common status and non-labour force the least. When male qualifications were also considered the exploration indicates a little more complexity. For example, women without a high level of education but who have a well-educated partner generally appear to have more options as to work status, whereas a poorly educated women whose partner is also poorly educated but does work full-time often has a much stronger financial incentive to also be in work full-time. Again, this type of analysis indicates that considering household characteristics is important when considering employment patterns of individuals.

Self-employment: Another situation where households might be important?

Finally, another form of non-standard work that increased strongly between 1986 and 1996 was self-employment. It is possible that having another household member who has a steady full-time job facilitates a move into self-employment. This other job could supply initial working capital and potentially moderates the risk of self-employment. While this issue needs a more thorough investigation, including an analysis of the household arrangements of the self-employed (for example to see if single people are less likely to enter self employment), Table 20 shows the changing composition of work-rich prime-aged couples between 1986 and 1996. It shows a decline in the proportion of couples where both were salary or wage earners, but strong growth in couples where one partner was self employed. It also indicates that 40 percent of couples where both partners worked full-time had at least one partner self-employed. This is far in excess of the overall rate of self-employment amongst individuals. In any future analysis of work-rich households, the issue of self-employment would be worth exploring.

Table 20 - Percentage of prime-aged couples where both work full-time by employment status of both partners

	1986	1991	1996
Male wage or salary, female wage or salary	63.7	61.6	60.0
Male wage or salary, female employer or self employed	3.8	3.9	4.7
Male employer or self employed, female wage or salary	15.7	18.7	19.1
Male employer or self employed, female employer or self employed	16.7	15.8	16.2
Total	100.0	100.0	100.0

Source: Census of Population and Dwellings, Statistics New Zealand
Note: Self-employed category includes unpaid family workers

Do work-poor households remain work-poor for long periods?

This is an important issue, but ideally needs panel data so both household and work transitions can be assessed over time. However, LFS data can provide some guide to transitions in work as participants are interviewed a number of times. While this type of analysis has yet to be carried out in New Zealand, British research of Gregg and Wadsworth (1994) provide some guide to what might be taking place in New Zealand.

Gregg and Wadsworth examined transitions using British LFS data that records the employment status for an individual a year before the survey date. Gregg and Wadsworth argue that between the late 1970s and 1990 the probability of gaining employment fell dramatically for members of households with no one in paid work.

Gregg and Wadsworth note that transitions into employment are as important as inflows into unemployment for the development of a group of long-term unemployed. Their data show that in 1979 60 percent of non-employed households had at least one earner a year later. But by 1993 this had declined to 25 percent. They also argue that the stock of two earner families was, by contrast, highly stable in all periods they studied.

Gregg and Wadsworth show that between 1979 and 1993 a collapse in the outflow rate of non-employed accounted for two thirds of the rise in the stock of jobless two person households and three quarters of the stock of no job single adult households. This resulted in major increases in the jobless durations of no-job households. Gregg and Wadsworth estimated that in 1979 a two adult household, on average, had no work for 18 months. But by 1985 and 1993 this had risen to about 54 months. Gregg and Wadsworth speculate that these extended durations must have led to major financial problems.

Work by Gregg *et al* (forthcoming) confirms that for a significant number of work-poor households in the UK this status is long term (Table 21). For example, labour force data for 1999 indicated that 59 percent of work-poor households had had no adult in work for 3 years or more. About a fifth had no one in work for less than a year. Being long-term work poor was even more common amongst sole parents.

Table 21 - Minimum time since any adult in a selected workless household was in work, UK estimates

	Less than 1 year	1-2 years	2-3 years	More than 3 years
All workless households				
1992	32.0	13.2	9.6	45.3
1995	20.5	14.1	11.7	53.7
1999	20.2	12.2	8.8	58.8
Workless households containing a single parent				
1992	18.2	10.8	11.3	59.7
1995	12.8	11.4	10.4	65.4
1999	15.0	11.2	9.0	64.8
Workless households with children				
1992	32.3	13.4	9.5	44.8
1995	19.6	12.4	10.5	57.5
1999	20.5	12.5	8.7	58.4

Source: Gregg *et al* (forthcoming)

If New Zealand rates were similar, then this would suggest that in 2000 there would have been about 130,000 working aged households that had been work-poor for 3 years or more. This would represent around 11 percent of total working age households.

Conclusion

Using households as the unit of analysis of employment change adds another useful dimension to discussions of changes in the labour market. It can show if gains or losses in employment are spread evenly across society, or if particular family or household types are major losers or winners in times of employment change. This includes determining whether employment is being concentrated in particular households and whether this is leading to new inequalities in both work and income. For example, in the past, when most prime-working aged men lived in couples, were employed full-time and were with partners who generally had a low level of participation in paid work, employment inequalities were

strong within households. However, changes in both employment and household arrangement have decreased inequalities within households but increased them between households.

Analysing the work patterns of all members in households can also provide useful insights into labour supply decisions. For example, decisions to work full-time, part-time, to take on more hours or even enter the labour force can often be better understood when the work patterns and earning power of other family members is known. While clearly the characteristics of individuals are important in labour supply decisions, the attributes of other family and household members can influence choices. When some labour supply decisions are being made, factors affecting total family or household income may have an influence on decisions. For example, moving from unemployment into a part-time job might seem sensible when only the individual is considered, if for a couple this means complete loss of higher household income derived from benefits then it may no longer seem a good choice.

Analysing changes in household and family employment can also provide insights into the growth of government transfer payments. For example, in the 1950s most of those not in the labour force (who were mainly women) were supported financially within families (mainly by males). In contrast, in the late 1990s / early 2000 more people (males and females) are supported by the state.

Over the long term there has been a slow, but steady, increase in the proportion of households where all prime-working aged people are employed. In the early days of women's increasing participation in paid work, a rise in part-time work could be directly connected to the growth of work-rich couples. However, in more recent times, gains in women working full-time has lead to an increase in households where all working aged adults work full-time. With the strong increase in participation of women in tertiary education in the past 15 years, coupled with stronger job protection through parental leave and better provision of childcare and after-school care, it is likely that there will be some further rise in the long-term full-time employment of women. This is likely to increase the proportion of work-rich couple households.

In New Zealand, the major job losses occurring during the mid 1980s to early 1990s led to a rapid growth in the proportion of households that were work-poor. However, in the period of subsequent job growth, and declining unemployment, the proportion of work-poor households declined very little. This pattern of hysteresis has been identified in other OECD countries. The reasons why the rate did not decline more strongly are still unclear. While it is likely there would be some further growth in work-poor households in any future recession it is also unclear whether the rate would then settle at this higher level.

In the UK, in the long term, the growth of work-rich and work-poor households has come about through both changes in households and changes in work within households. For example the growth in single adult households, whether they are sole parents or people living alone, inevitably leads to a polarisation of work. Such households have to be either

work-rich or work-poor. However, the simultaneous growth of work-rich and work-poor households, and the decline in mixed work households, has also been evident in couple households and other multi-adult households. These long-term changes are also likely to have taken place in New Zealand.

However, New Zealand evidence, particularly from the mid 1980s to mid 1990s suggests that the changing distribution of work across households was primarily due to changes in the labour market rather than changes in household form. In particular, there was very rapid growth in work-poor couples. Data from 1996 show that older couples were over-represented amongst these work-poor couples. The growth of these older work-poor couples reflects the major job loss amongst relatively low skill older men.

The changes mean that, in recent years, at any one time about a fifth of working age households in New Zealand could be classified as work-poor. This is of a similar magnitude to most OECD countries. Based on UK research, of these over a half could be long-term work-poor. In New Zealand, households with children, particularly sole parent households, are over-represented amongst work-poor households. In addition, when compared with other OECD countries, New Zealand heads the table for the proportion of work-poor households containing children. While not explored directly in this paper, there is much research literature suggesting that not only economic conditions but also government policy in areas such as welfare support and childcare are important factors in the employment rates of sole parent households.

International literature indicates that age, education and, linked to these variables, work prospects are important factors influencing the type of household's in which people live. They also then have some influence on whether households are either work-rich or work-poor. However, a range of research suggests many other factors have an influence on the work-status of households. Key issues that are worth further exploration in New Zealand are the effect of geographic location and the influence of the tax/benefit system has on work decisions within households. While some of this type of research has been carried out with regards to sole parent families, little has been undertaken with regards to couples.

In the past the increase in part-time work amongst partnered women appears to have been a key factor in the growth of work-rich households. However, in the last two decades part-time work spread to both men and women in a wide range of age groups and living arrangements. It does not appear that most part-time jobs are going to households in which other workers already have full-time jobs.

The growth in part-time work in some household situations, such as single adult households, suggests that categorising anyone who has a job as being "work-rich" is too crude. Even in couple households, there are situations where both partners are employed but work very low hours. In general, it seems better to classify only those households where everyone works full-time as being work-rich. The standard household employment tables produced by Statistics New Zealand from the HLFS classify households as being "all employed" if anyone is working. It would be useful if a further table were regularly

produced showing the proportion of working aged households where everyone was working full-time. A further table that could be regularly produced would show the proportion of children living in work-poor households.

However, even within narrower group of full-time workers, there is some still some diversity in hours worked and considerable diversity in income earned. There seems still to be few of the relatively high-income dual career households that are often discussed in the "work and family" literature. However, self-employment does seem an important factor amongst couples where both partners work full-time.

In addition, much of the picture of a polarisation of work in households is a static one. In particular, the issue of how long work-poor households stay work-poor is important. While ultimately it will be better to use longitudinal studies to determine this in New Zealand (and to also determine simultaneous transitions in household arrangements) HLFS household data could be used to asses transitions over the period an individual is interviewed. Understanding such transitions is likely to be an important aspect of understanding changes in income in households.

Finally, it is likely that there will be a further movement towards the polarisation of work across working-aged households. Three factors suggest this. First, for a variety of reasons, it is likely that the proportion of single adult households will continue to increase. As discussed, these inevitably have to be either work-rich or work-poor, they cannot be mixed work households. Second, as cohorts of increasingly well-educated women move through the labour market, there is likely to be some increase in the proportion of women who are in long-term full-time employment. Unless the working of the marriage market change markedly, and the employment behaviour of well-educated men also changes dramatically, it is likely that the majority of these women will live in work-rich couple households. Third, with an aging population the proportion of households with young children decreases. Until there is a major rise in the cohorts of people in the mid 50s to mid 60s, this group in their 40s and early 50s, if the follow current patterns, will tend to be work-rich. In addition, with increased life expectancy and increasing dependency ratios in terms of working aged to retired population it is likely, through a variety of mechanisms, that a greater proportion of households will stay work-rich through their sixties. One mechanism is that if employers face shortages of skilled labour they will need to turn more to this age group for potential employees.

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