

## The New Zealand Workforce: 1950-2000

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*In this paper, the author presents an historical perspective on the New Zealand labour market, placing the present employment crisis into its post-war perspective. The structural recession which commenced in the mid-1980s has placed huge stresses on the working age population. Just as the 1930s depression had a long-term impact on female workforce participation, the present crisis can be expected to permanently modify labour supply trends. The analysis focuses on income effects, with particular reference to responses to expectations of and changes in household incomes.*

### Definitions

The inappropriate use of the official measures may involve substantial misallocation of funds and resources . . . the current definitions are convenient for deriving single, unambiguous measures of unemployment and the labour force, but it is not clear whether the concepts underlying these definitions are the same as the concepts of unemployment and the labour force derived from the viewpoint of the economic theory which is often used in policy analyses . . . The interest in theoretical and empirical analyses of labour force participation is on the position and shape of the labour supply schedule. (Australian Bureau of Labour Market Research, 1985: 2, 6)

While it is essential for economists to adopt consistent definitions of terms - such as "unemployment" and "labour force" - it is not necessary for researchers to be restricted by formal concepts that are unhelpful in finding answers to the questions they have posed. Emerging trends can be concealed when broad residual classifications - such as "non-participation in the labour force" - cover a range of circumstances and activities. There are often no convenient statistical categories to encompass new modes of labour market behaviour, simply because they are new.

In the absence of a convenient practical boundary between unemployment and non-participation, an arbitrary boundary has to suffice. A small change in definition or procedure can make a significant difference to whether a large number of people fall on one side or the

other of that line. When following the labour force approach,<sup>1</sup> the line is drawn to satisfy a definition of unemployment that is too rigorous for many inquiries. There is no logical reason, however, why non-participation cannot be defined in a positive sense, focusing on what people are doing in preference to working for wages or profit. One portion of a population must be a residual, nevertheless, defined in terms of the other categories so as to ensure that the whole working age population is accounted for. Unemployment can be such a residual.<sup>2</sup>

Taking my cue from Jaffe and Stewart (1951: 14), I use a workforce concept that is defined independently of unemployment, as a measure of the economically active population. To be unemployed is simply to be in the workforce but not employed. There is no independent definition of unemployment.<sup>3</sup>

The workforce can be regarded as those people wanting to work at prevailing wage rates. The "prevailing" wage is a market wage but not necessarily a market-clearing wage. It may be determined in part by stabilising regulations, or by a community sense of what constitutes a fair wage. The main areas of discrepancy between the labour force approach and the workforce approach adopted in this paper are in the way "discouraged workers" are classified. Discouraged workers are unemployed but do not *actively* seek work or they are not *immediately* available for employment. In neo-classical economics, it is presumed that all discouraged workers find the opportunity cost of current market wages to be excessive and that they are therefore voluntarily unemployed. In practice, the barriers are as likely to be the costs involved in searching for scarce employment and high effective marginal tax rates faced by social welfare beneficiaries and their spouses. Included among discouraged workers are people who cannot "immediately" discontinue any second choice activity they may have become involved in.<sup>4</sup> Both groups of discouraged workers are in competition for jobs with those who are actively seeking work, and their presence helps to determine market wage rates.

<sup>1</sup> The "labour force approach" (Jaffe and Stewart, p.15; Australian Bureau of Labour Market Research, p.5; Revell and Brosnan, p.77) - as is used in New Zealand's post-war censuses and by the New Zealand Household Labour Force Survey - is characterised by an explicit definition of unemployment that has been interpreted with increasing rigour since the 1970s and excessive vigour in 1991.

<sup>2</sup> Rankin (1990a) explicitly uses the term "residual workforce" in preference to "unemployment", encompassing various forms of casual and unpaid labour market activity that did not fit the census categories of employer, self-employed or wage/salary earner.

<sup>3</sup> However, I am reliant on census data that asks people to class themselves as unemployed only if they are actively seeking work. In practice, the census data before 1986 will have included unemployed people not actively seeking work, because of the lack of suitable alternative categories for respondents to tick. In 1986, in addition to the 109,191 counted as unemployed, 40,461 males and 21,666 females describing themselves as unemployed had not looked for work in the previous four weeks (New Zealand Census of Population and Dwellings, 1986 Series C, Report 6, Table 14, p.58).

<sup>4</sup> In the 1991 census, non-employed people were excluded from the labour force if they were not available to commence employment during the week prior to the census date.

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The concept of joblessness - used in official statistics at present - includes some but not all discouraged workers.<sup>5</sup>

### The added-worker effect

Assuming that families plan for a target income modelled on the standard of living of the peer group, and that the wife is not expected to be the main earner over the family life-cycle . . . [married] women can be prepared to accept lower wage rates provided the targeted income is reached. (Bettio, 1988: 6-7)

One important labour market phenomenon, emphasised in this paper, is the "added-worker effect" whereby workforce participation is determined more by household incomes than by wage rates. Disposable incomes become more important than additional after-tax wages in determining how many household members choose to work. At times of falling real incomes, family members not in the workforce seek employment as a means of preserving their families' living standards.<sup>6</sup> The immediate need for an additional income to meet existing commitments can mean that additional workers' participation rates show a low sensitivity to wage rates offered. During a recession, there is an incentive for more mothers, teenagers and people of retirement age to seek employment or to delay workforce exit. The presence of additional workers in a recession can be detected by an upsurge in the ratio of females to males in employment.

Many additional job-seekers in a recession will, of course, fail to get employment, despite a willingness to accept low wages.<sup>7</sup> Their previous activities will have become second-choice activities. Because those activities do not change until new workforce entrants secure employment, it is only their preferences that change when they enter the workforce. Such people will continue to be statistically categorised according to their pre-workforce activities, so will not typically be counted as unemployed.

If the main reason for reduced household incomes is a fall in breadwinners' wage rates, then the added-worker effect is associated with a negatively sloping labour supply schedule

(Rankin, 1990b: 5-7), with increased numbers of people seeking work as real wages fall.<sup>8</sup> The converse implication of such a labour supply function is that an added-worker effect should become a "subtracted-worker effect" during a period of sustained economic growth. At such times people can be expected to feel more secure about making first-choice commitments to such non-workforce activities as family formation, tertiary education, and retirement.

Studies of labour force participation during recessions too easily become inconclusive because of the tendency of discouraged workers to offset additional workers (Poot and Siegers, 1992: 226).<sup>9</sup> By regarding discouraged workers as in the workforce, such an impasse can be averted. The two effects need to be clearly distinguished because they do not always coincide and because of their different effects on the composition of the workforce. Discouraged workers tend to be male, while additional workers are largely female. The added-worker effect can explain the acceleration of female workforce participation in the OECD in the 1980s. Participation induced by the sharp recession at the beginning of the decade was increasingly revealed by the growth of female employment during the end-of-decade recovery. Although New Zealand lacked such a recovery, there was a surge of female additional workers mid-decade, during a period of falling unemployment, on account of real wage reductions.<sup>10</sup>

The workforce concept ensures comparatively stable short-term participation rates, with the added-worker effect being the principal source of short-run change. This paper investigates the long-run implications of the added-worker effect. While recognising that past assumptions about male workforce roles may be of diminishing relevance, emphasis is nevertheless placed on explaining changes in female participation rates.

### The added-worker effect in the medium-long term

Putting the wife to work is one of the most obvious ways of augmenting an "inadequate" level of family income, and one would therefore expect higher income aspirations to have led to higher participation rates in 1965 than in 1948 among married women at any level of husband's income. In short, the choice between leisure and more goods and services has no doubt been affected by the range of goods and services generally available. We are convinced that income aspirations have risen markedly over the post-war period, and that rising income aspirations have in turn had a positive impact on the participation rate of married women. (Bowen and Finegan, 1969: 235)

<sup>5</sup> The New Zealand Household Labour Force Survey defines the unemployed as those who are employed, are actively seeking work *and* are immediately available for work. The jobless are those actively seeking work *or* immediately available who fit into the definition of workforce given here. They are waiting to hear of the availability of employment (passively seeking work!), and they have to make some arrangements before they can actually commence work. Unemployed people tend to engage in second choice activities. They are not literally idle. They may have to disengage from these activities before they can commence work.

<sup>6</sup> The added-worker effect is often defined only with respect to the participation rate of married women (for example, Lundberg, 1985). My work on the 1930s depression in New Zealand and Australia (Rankin, 1990a) suggests that most additional workers were daughters rather than wives.

<sup>7</sup> Some additional workers will also be discouraged workers. People involved in traditional non-workforce roles who wish to be employed may be less inclined (or face less pressure) to actively search for work. They will however be receptive to any information about job vacancies.

<sup>8</sup> An added-worker effect induced by rising unemployment can be an indirect result of falling wages. Employers noting a fall in market-clearing wage rates can lay off some workers while getting more work from the remainder without increasing their remuneration. Unemployment also induces a discouraged-worker effect amongst women, who face very high effective marginal tax rates on part-time employment once their partners become eligible for the unemployment benefit.

<sup>9</sup> The price (discouraged worker) effect, favouring leisure, cancels out the income (added-worker) effect.

<sup>10</sup> Important here is the dramatic rise in housing costs (especially mortgage interest), causing big falls in the effective disposable incomes of single-income families.

There are two ways in which the short-run added worker effect can influence the long term: through an inertial ratchet effect whereby cyclical recessions bring in additional workers, not all of whom leave the workforce after the subsequent recovery, and by an effect described by Easterlin (1987) in which household target incomes rise in line with expectations of improving living standards.

The inertial effect is based on the principle that people persevere with their current main activity unless there is a clear reason to change it. Piore (1979: 53) says "the very fact of having a job generates inertia: to give it up is to change who one is", and that most of us are resistant to income decline. Bladen (Lewis, 1956: 223) considered it "dangerous to ignore the rigidity of patterns once established". Additional workers may hold on to their jobs, even when their initial reason for seeking employment no longer applies.

While the utility to additional workers from employment may prove to be greater than they first anticipated (because wages and working conditions tend to be better after a recovery than during a recession), similar reasoning can also be applied to other activities. For example, an improvement in household incomes might encourage new family formation. If the upturn proved to be short-lived, some of those new non-workers could be expected to remain in their new activity, instead of attempting to return to their past employment. Indeed women who leave work to have children are constrained from immediate workforce re-entry. Furthermore, if the most recent employment experiences of new mothers had been unrewarding, as they may well be in a period of structural recession, and their experiences as a mother prove to be satisfying, then the timing of their re-entry into the workforce as their children grow up may be delayed. Participation rates of married women over 40 may be to a large extent determined by their employment experiences as young single women.

The ratchet effect involves a three-phase cycle: downturn, recovery and expansion. Additional workers are induced by the downturn and revealed by the recovery. Subtracted workers are associated with the expansionary phase. When there is little confidence in future economic growth, or the experience of growth varies from year to year or is confined to a minority social class, a net addition of workers and work-seekers per household can be expected. Over each complete business cycle, additional workers exceed subtracted workers. The added-worker / subtracted-worker concept can explain the use of female and child workers in factories and mines at the beginning of the industrial revolution, and the withdrawal of women from the workforce in the expanding economy of Victorian Britain (Saito, 1981; Richards, 1974).<sup>11</sup>

By way of contrast, in the expansionary phases of the New Zealand economy after 1950, subtracted-worker effects - evidenced by the huge rise in fertility rates - were increasingly outweighed by other effects. The Easterlin effect, emphasising household expectations of continuously rising *per capita* consumption, helps to resolve this difficulty. Thus, when real wages did not rise as fast as income aspirations, then households would compensate by raising their labour supply. When target household incomes rise faster than wage rates, the

<sup>11</sup> Humphries (1987) also documents the falling participation rate of women in 19th century England, but explains it in terms of parents acting to constrain the sexual freedom of their daughters, in a world in which work is increasingly performed away from the home.

added-worker effect becomes operative. *Per capita* economic growth is achieved as a consequence of increased female labour utilised as well as of rising productivity.

Easterlin sees this effect in generational terms, with certain generations (especially "baby boomers") having expectations of continuously rising living standards which families find increasingly difficult to fulfil on single incomes, while other generations, brought up in difficult economic circumstances but entering the workforce in expansionary times, have more modest expectations and fewer commitments. With less debt (indebtedness is a key determinant of future disposable income), they are more likely to find the income of a single breadwinner to be adequate. The baby boom of the 1950s and 1960s can be seen as an expression of a commitment by families to childraising as a preferred activity over other forms of consumption.

### Engel's Law adapted to time allocation

In 1857 Ernst Engel postulated that low income households would spend a relatively high proportion of their income on food (Fisher, 1935: 18; Kindleberger, 1989). The idea was interpreted as a law of diminishing household expenditure on basic necessities as real household incomes increased. On the assumption that services have a higher income elasticity of demand than manufactures, the concept was extended to suggest that the (tertiary) production of services would outgrow industrial production (for example, Bell, 1974: 188).<sup>12</sup>

The need to spend time procuring subsistence needs is the priority for all households. With economic growth it became increasingly possible for households to consume basic items and other wants by selling labour or the products of labour in return for money, although subsistence tasks (such as housework) remained. With increasing margins of affluence above basic needs the demand for free time increases alongside the demand for additional consumables. Discretionary leisure, like discretionary consumption, is income-elastic. Leisure-preference is the long-observed response of pre-industrial societies to rising rates of remuneration (Saito, 1981: 635).

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#### ENGEL'S LAW

re consumption:  
 food and shelter (primary) ---> manufactures (secondary) ---> services (tertiary)

re time allocation:  
 (subsistence) ---> income ---> leisure ---> independence/status ---> (property income)

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<sup>12</sup> It was assumed that because most services were consumed by rich people, that as more people became rich then proportionately more services would be consumed. However, as more people became rich it became economically viable to substitute goods for services (for example, private cars replacing public transport; home stereo systems replacing concerts). An important critic of the misuse of Engel's Law is Gershuny. There are problems with the simple primary/secondary/tertiary classification because each major sector is heterogeneous. The most appropriate modern derivative of Engel's Law might be the growth of software relative to hardware.

In traditional societies work was unambiguously a utility sacrifice. In modern societies, however, work itself can be a source of satisfaction. Consumption and leisure are not the only sources of utility. There is an important distinction between "drudge" work for which the only reward is income, and sociable, creative or intellectual work which is satisfying in itself (Ruth, 1978: 32). Thus, with economic growth, the desire for increased leisure can diminish, with more enjoyable work being a substitute for additional leisure.

Co-operative households were a necessary response to economic insecurity. Reductions in the pressure of scarcity made possible by economic growth and social security have made it possible for co-operative family and community structures to weaken. That weakening of the "patriarchal" household was itself a form of utility for some members. Once relieved of the need to work in support of their households, increasing numbers of women sought a degree of social and economic autonomy. Personal independence required a personal income. In the absence of a universally available transfer payment (Rankin, 1991b) or property income, the changes in the nature of the household necessitated an increase in female employment rather than an increased participation in a narrow range of leisure or voluntary activities. Thus independence can be regarded, like leisure, as an economic good with a high income elasticity. "Inefficient" modes of living, afforded by economic growth, are an expression of a preference for reduced dependence on male breadwinners and a more equitable control within families over expenditure and time allocation.

Reduced household cohesion has led to a rise in the number of households and a fall in their average size. A corollary of the decline in household size has been reduced specialisation with respect to household roles. With small households, it has become less meaningful to regard one particular adult as a primary breadwinner. Housework and household leisure come to be allocated more evenly amongst household members, with less gender differentiation. This suggests a future trend for individuals to adjust their hours of work according to income requirements, rather than for subordinate household members to enter or exit the workforce.

The increased substitution of domestic work (such as home childcare) in favour of market work in recent years draws attention to the shortcomings of only using market work as a measure of labour supply. All households retain a subsistence component of work effort, which, if explicitly accounted for, would alter our perspective on female labour supply and long-run economic growth (Krantz, 1988: 175; Snooks, 1989). One explanation for the positive income elasticity of labour supply for married women between 1950 and 1980 is that the choice increasingly became a substitution between (subsistence) housework and market income, whereas for men the choice has been a direct one between work and leisure (Cain, 1966: 7) in the form of less overtime or earlier retirement. This conclusion follows directly from the Engel approach; subsistence work is the least income elastic category of time allocation.

At very high levels of income, the Engel's Law approach is manifested by the quest for positional goods - the Hirschian paradox (Franklin, 1985: 63-70) or "keeping up with the Joneses". So long as status is found primarily through workforce roles, and social influence is exerted through high status jobs, then the Engel approach suggests that there should be a long-run trend towards positive income-elasticity of labour supply for men as well as for women. High income people can become addicted to their work because of the status associated with it, and the ability it gives them to purchase scarce positional assets, such as

land with a view of Rangitoto Island. Those on lesser incomes can feel obliged to work more to keep up with the high flyers and the workaholics (see Schor, 1991). High consumption levels in busy households can reinforce the income maximisation goal for the majority, generating a highly competitive work ethic. From a societal perspective, the competitive acquisition of positional goods is futile. Only some households can be relatively affluent.

Taking the Engel's Law approach to its logical conclusion, however, favours an eventual reduction in workforce participation. As incomes deriving from the ownership of assets increase relative to incomes from labour, increasing numbers of people will be able to retain high incomes and maintain high social standing without being employed.<sup>13</sup> More people would become company directors. Labour supply should ultimately be negatively income elastic. Individuals would have income, leisure and autonomy.

In the context of this paper, the "Engel effect" is the preference for an independent income over dependent leisure. In a wider context, the effect constitutes an "M-shaped" long-run labour supply function of workforce participation with respect to incomes.<sup>14</sup> As subsistence work gives way to market work, labour supply has a positive income elasticity. Increasing leisure preference reverses the pattern, which is in turn reversed by the desire for more personal autonomy and the desire to consume more positional goods. These are "inefficient" choices, requiring additional income per unit of consumption or leisure. Household economies of scale are reduced as the proportion of one/two-person households rises. In the very long run, so long as labour productivity continues to rise, we can expect labour supply to contract as property income gradually replaces labour income.

### Workforce Statistics: 1951-1993

There are three main sources of New Zealand post-war employment statistics: the quinquennial census (conducted by the Department of Statistics), the Labour Department's Employment Survey (which became the Statistics Department's Quarterly Employment Survey - QES - in 1989), and the Household Labour Force Survey (HLFS, commenced December 1985). Official employment, unemployment and participation rates are now those given by the HLFS.

<sup>13</sup> If social ranking and income increasingly derive from the ownership of capital rather than the sale of labour, and much productive human capital was to become disembodied into forms of artificial intelligence, education would increasingly complement leisure rather than labour. People would be educated; machines would be trained. In pre-industrial times, maximum utility was derived from becoming part of a classically educated leisured aristocracy. Perhaps - well beyond 2000 - we can eventually all become independent leisured gentlemen, living off individually and collectively owned property income, and with computer technology replacing the *ancien régime* servant class?

<sup>14</sup> Kindleberger's view of Engel's Law is particularly interesting, because he shows that certain income elastic products (such as television sets) become income inelastic as the market saturates but become elastic once again as a new aspect of the market (second sets) becomes apparent. It is the same with employment. The first surge in workforce participation comes with the desire of households to consume more. The second surge comes as otherwise subordinate household members seek personal income and/or enjoyable work in preference to leisure and housework.

With bi-annual employment surveys commencing in 1947, it has been possible to produce reliable inter-censal employment estimates from 1951. Annual estimates of working-age population, workforce, employment and unemployment are presented in the Appendix Table.<sup>15</sup> The workforce estimates are straight-line interpolations of census data, and include people who worked less than 20 hours a week.<sup>16</sup> Part-time workers are defined, to conform with present conventions, as those working less than thirty hours a week. Unemployment is the workforce minus the employed. For the years after the 1986 census, the employment estimates have been calculated by averaging employment growth rates from the two surveys, QES and HLFS.<sup>17</sup> The post-1986 workforce estimates have been calculated by projecting the 1976-86 census non-participation rates for 15-64 year-olds.<sup>18</sup> Figure 1 shows participation and employment rates, calculated from Appendix data. Likewise, Figures 2 and 3 show non-participation and unemployment from 1951 to 1993. Census labour force data is depicted in Figures 1 and 2. In 1991 that data is not comparable with that from earlier statistics.<sup>19</sup>

As Figure 1 shows, while female participation rose from 30 to 58 percent between 1951 and 1983, female full-time employment only increased from 26.5 to 34.5 percent of 15-64 year-olds, rising to 37.5 percent in March 1986. There is a clear indication of female additional workers gaining employment in 1984-86. In March 1993, female participation is estimated at 69 percent with full-time employment at 33.5 percent, less than half of the female workforce. In contrast, male employment rates have fallen steadily to 1982, and quite

<sup>15</sup> The estimates reflect the position in March/April each year. Those months have consistently been the low point for seasonal unemployment.

<sup>16</sup> From 1951 to 1981, part-time workers - defined as those working fewer than 20 hours per week - were excluded from the census labour force count. As a result, it has not been possible to estimate part-time unemployment; i.e., people without employment seeking part-time work.

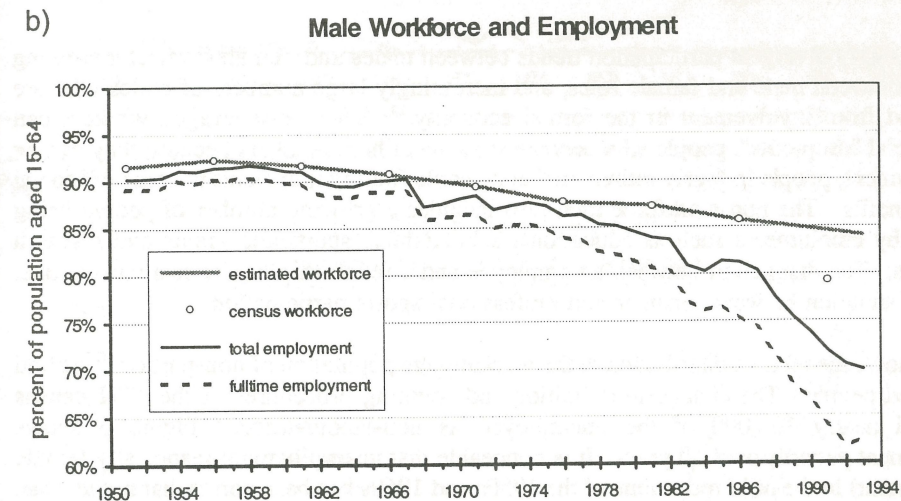
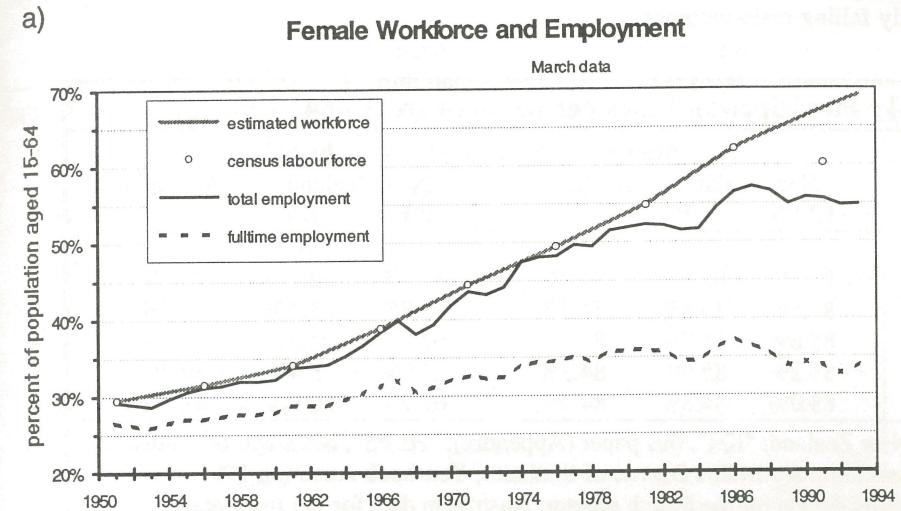
<sup>17</sup> The QES part-time employment was adjusted to achieve ratios of full-time to part-time consistent with those of the HLFS. The discrepancy arises because the QES measures jobs rather than people. A significant number of people classed as employed full-time in the HLFS are in fact people working in two or more part-time jobs. Because the revised QES only backdates to 1987, only the HLFS has been used to estimate employment growth from 1986 to 1987. Likewise, only HLFS data has been used to produce the 1993 estimates.

<sup>18</sup> For each sex, the annual average increase in the non-participation rate between the 1976 and 1986 censuses was calculated (1.54% for males, -2.86% for females). It is that rate that has been applied to subsequent years. The 1981 census labour force count is suspect because of the omission of part-time unemployment. This was much less of a problem in 1976 because of the small numbers of unemployed and part-time workers.

<sup>19</sup> The 1991 census unemployment count of 164,000 is not compatible with the 109,000 from 1986. There was no question on unemployment in 1991. Instead, the unemployment statistic was derived from four other questions. The 1991 census also shows some important discrepancies in the total population data. From birth, death and migration records, there appears to be a population undercount of nearly 20,000 compared to 1986, and 50,000 compared to 1951. My estimate of total employment in March 1991 (1,446,800) - approximately half-way between the 1991 census (1,400,400) and HLFS (1,471,300) estimates - is probably an overcount. Nixon (1993) suggests that the HLFS (then derived from a sample of 24,000 households) is more accurate than the census. But it is hard to believe that the census could miss between 40,000 and 70,000 employed people.

FIG. 1

source: Appendix Table



savagely after 1986. Overall, participation rates continue to rise despite the contraction of male labour supply.

Table 1 suggests that, in the light of Australian experience of stable male participation and rapidly rising female participation between 1986 and 1990, the New Zealand workforce estimates presented here for the 1990s are somewhat conservative, showing slower workforce growth in New Zealand than Australia. Australians have similar aspirations to New Zealanders, and there is no reason to believe that New Zealanders suddenly became work-shy

while Australians were eager to work harder. Female employment and participation rates have been higher in New Zealand for some time now (Rankin, 1992), with the added-worker effect - clearly evident in 1984-86 - unlikely to have become less important in times of dramatically falling male incomes.

destinations. Many returned in 1982-84 at a time of very high unemployment in those countries, initially postponing the drop in unemployment in New Zealand but also playing a key role in the recovery.

**Table 1: Participation Rates per person aged 15-64, 1986-90**

	Male		Australia	Female		Australia
	New Zealand HLFS	KR		New Zealand HLFS	KR	
1986	87.8%	85.7%	84.4%	62.8%	62.2%	55.8%
1987	87.5%	85.5%	84.3%	63.3%	63.3%	57.5%
1988	85.6%	85.2%	84.1%	63.0%	64.3%	58.4%
1989	84.2%	85.0%	84.3%	61.9%	65.4%	59.7%
1990	83.0%	84.8%	84.9%	62.7%	66.4%	61.4%

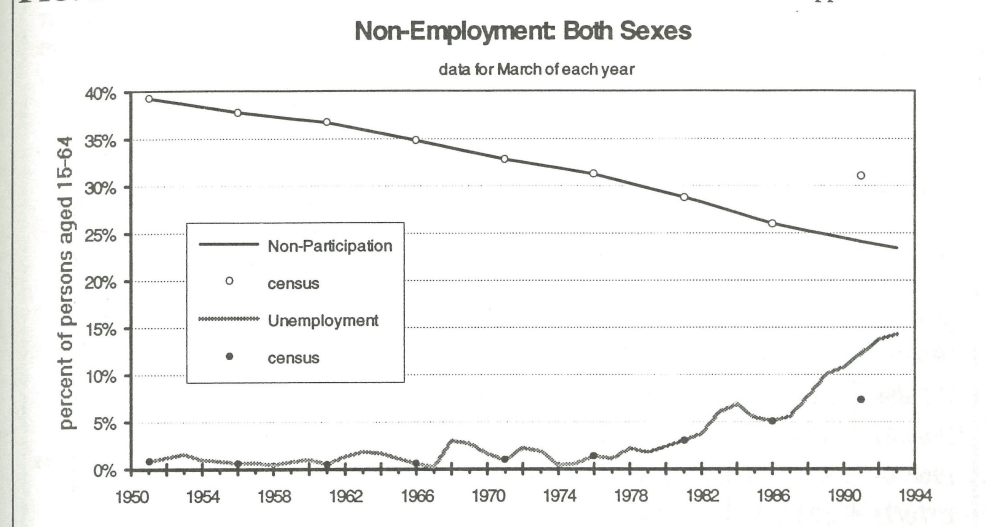
source: New Zealand: "KR", this paper (Appendix); "HLFS", NZ Dept. of Statistics.  
Australia: Australian Bureau of Statistics, Yearbook Australia 1991, p.157.<sup>21</sup>  
New Zealand data is for the March quarter, Australian data for the June year.

The increasingly divergent participation trends between males and females reflect a growing flexibility between male and female roles, and increasingly large numbers of males who are discouraged from involvement in the formal economy.<sup>20</sup> These discouraged workers can include social "drop-outs", people who become students or home-makers because they cannot get employment, people in "early retirement" and people finding it difficult to come off social welfare benefits. The non-workforce total also includes a growing number of people being supported by emoluments such as educational scholarships, sports/arts grants and research fellowships. The distinction between an employee and a fellowship holder is a narrow one, as is the distinction between amateur and professional sports participation.

Figure 2 shows the relative distribution in the working-age population of non-participating and unemployed people. The change in definition and counting procedures of the 1991 census reclassified nearly 100,000 of the unemployed as non-labour-force. Figure 3 shows unemployment patterns over 40 years. It is noticeable that unemployment (especially female unemployment) in the mild recessions of the 1950s and 1960s has been somewhat higher than has been generally acknowledged. By contrast, the unemployment rates are surprisingly low in the late 1970s. The particularly sharp recession of 1977 induced two major responses. The propensity of unemployed people to apply for the unemployment benefit increased, causing more of the unemployed to register and be counted (Thompson and Endres, 1979). And the rate of emigration increased sharply. In these years an unusually large number of young New Zealanders sought and gained employment in Australia and other overseas

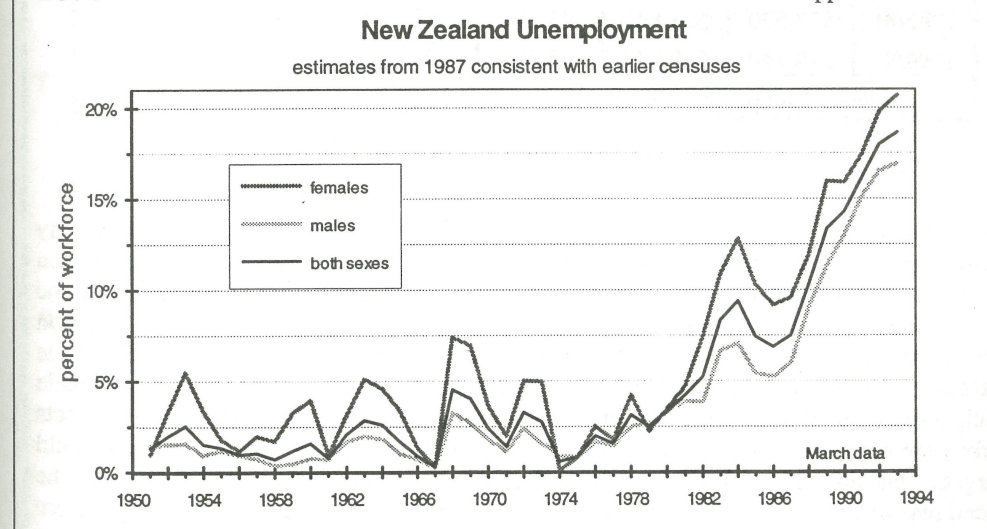
**FIG. 2**

source: Appendix Table



**FIG. 3**

source: Appendix Table



<sup>20</sup> Presumably the growth of discouraged workers applies to females too, suggesting a major decline in traditional modes of female non-participation. It should be noted that the non-workforce includes overseas visitors, who have made up a small but steadily increasing proportion of the total population.

Table 2 shows the median incomes of young adult full-time wage and salary earners (in 1990/91 prices), and Table 3 shows the participation rates of women of different ages and household situations. The Table 2 data can be taken as indicative of prevailing wages for recent workforce entrants (and re entrants) of all ages. Female wages rising in absolute terms and relative to male wages may have constituted an inducement for women to work more. However, the experience after 1981 is one of absolute falls in both male and female real wages of new workforce entrants. 1981-1986 was a period of particularly rapid increase in female labour supplied, despite falling wages, consistent with a backward-sloping labour supply schedule. In 1991, young workers of both sexes were not much better off than were women prior to the introduction of equal pay.

year to March	median annual income			mean hourly rate		
	male	female	female as	male	female	female as
	\$1990/91	\$1990/91	% of male	\$1990/91	\$1990/91	% of male
1950/51	\$15,290	\$10,230	66.9%			
1955/56	\$17,310	\$11,760	67.9%			
1960/61	\$19,400	\$13,500	69.6%	\$8.57	\$6.50	75.9%
1965/66	\$21,560	\$15,610	72.4%	\$9.48	\$7.64	80.6%
1970/71	\$23,790	\$17,840	75.0%	\$10.75	\$8.91	82.9%
1975/76	\$26,310	\$22,880	87.0%	\$11.71	\$11.41	97.4%
1980/81	\$26,500	\$23,760	89.7%	\$12.24	\$11.80	96.4%
1985/86	\$23,570	\$21,840	92.7%	\$10.79	\$10.30	95.5%
1990/91	\$20,240	\$19,940	98.5%	\$9.32	\$9.40	100.9%

source: Rankin (1993, pp.12-13)

While there was a big increase in female earnings after the implementation of equal pay legislation in 1972, the 1966-71 experience suggests that the acceleration in the participation of married women was already well under way. It was probably linked to a reduction in the average maternal age for which the youngest child started school. While the correlation between rising real wages and surges in female participation is poor, better wages for female workforce entrants may have offset what might otherwise have been a fall in female participation in the 1950s. For males, in the years to 1976 positive wage substitution effects clearly were not enough to overcome income effects favouring more leisure. While it could be argued that the fall in male participation rates after 1981 is a genuine response to the reduced real wages on offer, the historical pattern suggests males have been discouraged from seeking work for reasons other than low wages.

**Table 3:**  
New Zealand Post-War Female Workforce Participation by Age and Marital Status

	% 20-24	% 25-34	% 35-44	% 45-54	% 55-64	% total
<b>never married</b>						
1945	88.2	82.2	72.6	60.5	32.8	76.1
1951	89.7	83.8	75.7	65.7	38.6	77.3
1956	91.2	85.1	77.6	69.3	44.2	78.6
1961	91.9	84.7	78.3	70.6	45.6	79.4
1966	93.1	89.4	84.3	77.3	51.7	84.0
1971	90.8	89.4	84.1	77.0	51.0	83.6
1976	83.2	82.8	80.3	75.8	44.7	78.6
1981	79.3	76.1	75.8	73.6	42.8	75.5
<b>married</b>						
1945	17.4	9.0	8.6	7.0	3.7	8.2
1951	16.0	9.3	11.3	11.9	5.5	10.5
1956	19.4	11.5	15.2	16.7	8.4	13.9
1961	20.7	12.6	19.6	22.0	11.7	17.3
1966	26.7	15.8	24.3	26.5	14.7	21.5
1971	34.3	22.4	33.6	33.5	17.4	28.2
1976	44.0	30.0	43.8	41.1	19.1	35.4
1981	48.4	34.8	49.9	46.7	20.4	39.7
<b>ex-married<sup>22</sup></b>						
1945	50.7	52.5	44.9	29.6	13.7	27.7
1951	59.9	56.5	50.5	36.4	16.4	32.4
1956	54.0	56.1	53.2	42.6	20.3	35.5
1961	56.9	53.6	51.5	45.2	22.5	36.5
1966	58.5	53.6	55.9	46.8	24.7	38.6
1971	55.9	54.2	55.7	48.9	25.7	40.5
1976	45.7	44.9	54.1	47.9	23.1	38.3
1981	42.8	44.2	55.4	51.1	23.2	41.6
<b>TOTAL (excl. unspecified)</b>						
1945	62.3	27.1	19.5	16.5	9.7	25.2
1951	52.7	22.5	20.7	21.0	12.1	24.1
1956	50.6	21.9	22.8	24.9	15.2	25.1
1961	49.8	20.9	25.4	28.7	17.7	27.0
1966	52.9	23.8	29.5	32.2	20.4	30.5
1971	54.8	29.5	37.5	37.7	21.9	35.6
1976	58.8	35.8	46.2	43.6	21.6	40.6
1981	64.3	40.9	51.8	48.6	22.3	45.0
<b>% population married</b>						
1945	35.9	73.9	80.6	75.8	64.6	69.0
1951	49.7	81.2	83.2	77.2	64.4	74.1
1956	56.1	84.8	85.8	79.2	66.1	77.6
1961	58.6	87.5	87.9	81.1	67.3	79.2
1966	60.0	88.0	89.2	82.6	69.0	80.0
1971	62.5	87.4	89.1	83.4	70.3	79.9
1976	59.6	85.2	87.9	83.6	71.1	79.0
1981	43.5	76.8	82.2	80.7	71.2	72.7

source: New Zealand Census of Population and Dwellings

note: The Workforce excludes those working for fewer than 20 hours each week.

22 Legally separated, divorced, widowed.

While female workforce participation has been consistently rising since 1950, it was not as high in the 1950s and 1960s as it was in the 1930s (Rankin, 1990a, 1990b). It should be stressed, however, that there was a rapidly rising composition of married women in the female population from 1940 to 1960. In the 1940s and 1950s, marriage and family formation was increasing - including during the war years - despite historically high wages and labour shortages.

One reason for increased female labour supply from the 1950s to the 1970s was the trend for women to complete their families at an earlier age, an expression of the Easterlin effect whereby favoured generations set high and rising target incomes per family member. As the proportion of the female population primarily involved in caring for young children diminished, potential female labour supply grew. Most 1950s mothers had been employed at some time in the 1930s or 1940s, whereas many mothers in the 1930s had never been employed. Pre-marriage employment experiences must have played an important role in determining women's workforce choices once children reached school age. The baby boom that brought about low participation rates was unravelling in the 1960s and 1970s.

The trend also reflects the decreasing labour-intensiveness of housework, and a focus on social opportunities for women. Once enough suburban mothers started to commute to central city offices, the need for a daytime social life amongst their peers placed pressures on all suburban women, who would seek employment for many reasons other than money (Bell and Street, 1969).

The participation of young unmarried women was rising steadily until 1961-66, reflecting a growing desire for independence from parents. In later years, opportunities in tertiary education reversed the pattern, making non-market activity *and* independence an option. A spurt in the employment of older unmarried women after 1961 spelt the end of their apparent inertia. Many would have been brought up during the inter-war years when employment for single women was not the norm. Perhaps the increased labour market activity of middle-aged married women in the late 1950s helped older single women who had never previously been employed to overcome any misgivings. The fall in the participation rates of unmarried women in the 1970s reflects the rise in *de facto* marriages.

It is possible that there has been a significant reduction in expectations of material living standards since 1986, with people increasingly choosing leisure pursuits and motherhood at lower levels of consumption. The fall in real incomes of new workforce entrants has been marked. The unexpected rise in the birthrate from 1986 - a rise that was not paralleled in Australia - suggests that this might be so. But the 63 percent rise in the number of abortions in New Zealand since 1985 (AJHR E-28, 1992), following a few years of stable abortion rates, suggests that the main reason for the 2.5 percent *per annum* increase the number of births from 1985 to 1991 is an increase in the level of unplanned pregnancy. Additions to the pregnancy rate - almost entirely ex-nuptial - may be correlated to the rising incidence of crime and suicide; a social reaction to unfulfilled expectations in a society which has become unresponsive to increasing labour supply. Before 1986, households could meet their material expectations by raising their labour supply. Since then, more labour supplied has just meant more unemployment. The living standards of the majority of households have fallen. There is little evidence as yet of a reverse Easterlin effect, in which targeted household incomes

progressively fall relative to prevailing wages. It may emerge as a rise in family formation in the 1990s, despite falling or static incomes.

## Towards and Beyond 2000

More Workless or More Work Less (Gilbert, 1989)

If New Zealanders' incomes continue to fall or stagnate, there are two diametrically opposing scenarios which follow from the theoretical approach and interpretations suggested by this paper. One is that expectations of reduced living standards could lead to a long term reversal of the rising post-war labour supply. Alternatively, continuing attempts by households to maintain high material standards in the face of low wages through increased labour supply may further depress real wages and therefore induce further increases in participation rates. Attempts to maintain future living standards by increasing household savings may dampen aggregate demand and hence place even more pressure on wages. So long as the targeted incomes of existing workers rise faster than their actual incomes, there will be more additional workers in the 1990s. Additional workers in the next two decades will most likely be people of both sexes in the 15-24 and 55-70 age groups; people whose households cannot afford to support them in advanced education or retirement, and who will be expecting to receive diminishing levels of public support.

Measuring labour supply in terms of participation rates is, however, becoming redundant, just as it was not useful in helping us to understand pre-industrial labour markets based on small-scale family enterprise. The workforce itself is a concept only appropriate for an industrial society in which there is a clear differentiation between workplace and home (Piore, 1987: 1836). Participation rates emphasise just one aspect of labour supply; numbers of people rather than increments of time or effort. With more fluid gender roles, it is becoming increasingly necessary to use more sophisticated measures of labour supply. It is possible that labour-time willingly supplied decreased during the 1960s and 1970s despite the expansion of the workforce. A fall in labour supply may have been frustrated by a shortage of part-time employment opportunities and the rigidity of the 40-hour work week. Increased annual leave entitlements were one way of facilitating demands for free time. Labour supply is a function of hours worked per week, weeks worked per year, and years worked per life. It is simplistic to focus on just one of these variables. The participation rate is sensitive only to changes in the number of years in a working life that are devoted to the labour market.

In the 1990s, the rise of a more intensely competitive labour market appears to be creating a significant reduction in the number of hours people feel they can afford to spend on distinctly non-market activities. The time expended in earning a living in today's labour market includes more time involved in setting up new businesses, in tendering for work, unpaid overtime, unpaid time "on call", travel time, job search time, time collecting earnings from sub-contractor employers who may themselves not have been paid, time engaged in personal marketing (for example, preparing one's c.v.), increased paperwork for employers and self-employed (and their relatives assisting) as they are obliged to perform public services (such as collecting taxes and accident compensation levies). Business executives, school headmasters and other public servants now face competitive pressures to work well in excess of eight hours per day, either by staying late at their offices or by bringing work home. This



is as true of work intensity as of work time. People in work now often have to work harder or faster than before, without increased remuneration. Within normal working hours, they are expected to do the work of redundant colleagues or to cover for additional work that might in the past have constituted a new job. Most of these features are symptomatic of falling market-clearing wage rates at a time when people cannot afford a reduction in their wage incomes. An increase in work intensiveness is an increase in the quantity of labour supplied; a variation of the added-worker effect.

The Engel effect will only be a significant factor in the 1990s if economic growth rates accelerate markedly. However, the data in Table 2 suggest that a reverse Engel effect could take place. Indeed, it may well have begun, with increasing numbers of (especially) males in their twenties choosing to live with their parents instead of working,<sup>21</sup> much as females of that age did in the 1920s. As in the past, adequate ways of measuring changes in such trends will only be devised once any new developments have become established. Tomorrow's historians will not be able to fully understand the 1980s and 1990s labour market through the uncritical use of official statistics.

Whatever happens to workforce participation in New Zealand in the future, it is not likely to be completely divorced from international developments. The labour market is international, despite there being more barriers to the mobility of people than of capital markets and goods. While there are significant differences in the participation rates of different OECD countries, this in part reflects a definition of unemployment that ensures that measured labour force participation will fall during a recession and therefore relates to the timing of recessions in different countries. Labour supply trends in New Zealand retain a significant indigenous component, given a propensity to have recessions while other countries do not. Hence cyclical migration is an important additional influence on New Zealand's labour market. The export of skilled workers that has occurred is not a means to reducing domestic unemployment. Such people generate additional income in the countries in which they are working and hence create downstream jobs in those countries. The loss skilled workers can only aggravate the unemployment problem which brought about the labour exodus.

## Conclusion

This paper has introduced three perspectives of long-run labour supply change: a ratchet effect resulting from the partially irreversible nature of the changes in short-term labour supply which result from fluctuations in household incomes; a long-run added worker effect (Easterlin effect) resulting from rising household income targets; and an income elasticity (Engel) effect resulting from individuals' desire to be freed from family dependence. These do not necessarily constitute separate hypotheses of change. The short-run added worker effect appears to have been a catalyst which has helped to free labour supply from long-run

<sup>21</sup> Census data show non-participation of males aged 25-29 to be 3,231 (1981), 6,906 (1986) and 16,683 (1991), compared to 57,846 (1981), 49,833 (1986) and 52,383 (1991) for females of the same age. Adjusting the 1986 data to 1991 procedures would give an approximate doubling of the male non-workforce aged 25-29 between those years, with no change for females. It cannot be assumed that these non-participating young men are mainly househusbands, given a decline in female full-time employment between 1986 and 1991.

inertia, a mechanism by which the Engel effect can take place. The Easterlin hypothesis extends the added-worker effect to the long-run in a different way, focusing on anticipated rather than realised economic growth and using unfulfilled expectations of increases in real wage rates to explain why households supply additional labour. In the mid-20th-century the Easterlin effect and the Engel effect have both acted to increase female labour supply.

All three effects can operate in reverse. Per capita economic growth cannot be taken for granted even over the long term (Jones, 1988). The reverse ratchet effect occurs if people accustomed to labour market participation are permanently drawn out of the workforce by the unanticipated utility deriving from activities adopted during a period of unemployment. The reverse Easterlin effect occurs when households revise their income targets downwards. The reverse Engel effect can be expected to occur when incomes fall over an extended duration, with increased household cooperation replacing personal autonomy.

The valuation of the opportunity cost of competing activities is subject to variation. The utility received from various forms of material and non-material consumption changes with time. Independence from a close-knit community can lead to loneliness, leisure can become boredom, family bonds both restrict and enhance individuals' well-being. Members of one generation may be inclined to devalue the activities valued most highly by their parents, suggesting a long-wave pattern of labour supply fluctuation. The 1990s might be a turning point in such a cycle, pointing towards a long-term contraction of labour supply. If we move into a period of falling prices similar to that experienced worldwide from 1873 to 1896, then real incomes of median households could actually increase while income expectations fall.

If the 1990s labour market fails to satisfy past aspirations, New Zealanders may rediscover the benefits of family cohesion. Child raising by both men and women may be increasingly recognised as an activity satisfying in itself, and as a means to raising security in old age next century, given the present doubts about the extent of future public provision of retirement income. Female workforce participation rose in the 1960s in line with the increasingly early maternal age in which the last child was born. In the 1990s there are many women who cannot delay family formation for much longer. The average maternal age of the last child born will steadily increase as the year 2000 approaches. When the sustained economic growth returns, there will be a contraction in the female full-time workforce. The part-time workforce will continue to grow.

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## Appendix: New Zealand Workforce estimates: 1951-93

March	working-age Population people aged 15-64		non- participation		Workforce		Employment				Unemployment		
							full-time		part-time				
	m	f	m	f	m	f	m	f	m	f	m	f	total
1951	598,800	592,600	50,300	417,600	548,500	175,000	534,000	157,000	6,600	16,300	7,900	1,700	9,600
1952	609,600	602,100	50,300	422,000	559,300	180,200	543,900	157,800	6,700	16,400	8,700	6,000	14,700
1953	620,400	611,700	50,300	426,200	570,100	185,500	554,000	158,400	7,000	16,900	9,100	10,200	19,300
1954	631,300	621,200	50,300	430,400	581,000	190,800	568,500	164,600	7,000	19,800	5,500	6,400	11,900
1955	642,100	630,700	50,200	434,500	591,900	196,300	576,900	170,000	7,900	22,800	7,100	3,500	10,600
1956	652,900	640,300	50,100	438,500	602,800	201,800	589,400	173,300	7,900	26,100	5,600	2,400	7,900
1957	665,100	651,000	51,900	442,500	613,200	208,500	600,100	178,200	8,600	26,200	4,500	4,100	8,600
1958	677,200	661,700	53,700	446,400	623,600	215,200	612,300	183,200	9,000	28,300	2,300	3,700	6,000
1959	689,400	672,400	55,500	450,200	633,900	222,100	622,300	186,400	8,700	28,500	2,900	7,200	10,100
1960	701,500	683,000	57,300	453,900	644,200	229,100	630,500	190,200	8,900	29,800	4,800	9,100	13,900
1961	713,700	693,700	59,200	457,500	654,400	236,200	640,500	199,300	9,200	34,700	4,700	2,200	6,900
1962	731,300	710,900	62,100	461,900	669,200	248,900	648,700	204,700	9,100	36,400	11,400	7,800	19,200
1963	749,000	728,000	65,100	466,000	684,000	261,900	661,500	209,800	8,900	38,700	13,600	13,400	27,000
1964	766,700	745,100	68,100	469,800	698,600	275,300	676,700	219,900	9,200	42,700	12,700	12,700	25,400
1965	784,400	762,200	71,200	473,200	713,200	289,000	696,500	231,300	9,500	47,900	7,200	9,800	17,000
1966	802,100	779,300	74,300	476,400	727,800	303,000	712,200	244,000	10,500	54,900	5,100	4,000	9,100
1967	814,200	792,700	77,500	475,600	736,700	317,100	723,600	254,400	11,300	61,600	1,800	1,100	2,900
1968	826,300	806,100	80,800	474,500	745,500	331,600	709,700	246,500	11,500	60,600	24,300	24,500	48,800
1969	838,300	819,500	84,100	473,200	754,200	346,300	720,900	254,700	12,900	67,500	20,400	24,100	44,500
1970	850,400	832,900	87,500	471,500	762,900	361,400	734,100	267,500	15,000	80,800	13,800	13,100	26,900
1971	862,500	846,300	91,000	469,600	771,500	376,800	746,300	276,000	16,500	93,300	8,800	7,400	16,200
1972	883,800	867,600	96,300	472,800	787,500	394,800	751,400	279,100	17,000	95,900	19,100	19,800	38,900
1973	905,100	888,900	101,800	475,600	803,300	413,300	771,500	288,400	18,900	104,300	12,900	20,600	33,500
1974	926,300	910,200	107,400	478,000	818,900	432,200	790,000	310,100	22,000	121,800	6,900	300	7,200
1975	947,600	931,500	113,200	480,000	834,400	451,500	804,900	319,900	22,400	127,900	7,100	3,700	10,800
1976	968,900	952,800	119,100	481,500	849,800	471,300	812,400	327,900	22,900	131,400	14,400	11,900	26,300
1977	977,200	961,700	120,900	475,600	856,300	486,100	818,600	337,400	25,200	140,100	12,500	8,600	21,100
1978	985,500	970,600	122,800	469,500	862,700	501,100	813,400	334,000	27,600	145,900	21,700	21,200	42,900
1979	993,800	979,500	124,600	463,100	869,200	516,400	816,300	350,100	29,800	154,700	23,100	11,600	34,700
1980	1,002,000	988,400	126,400	456,600	875,600	531,800	816,100	354,300	30,800	158,900	28,700	18,600	47,300
1981	1,010,300	997,300	128,300	449,900	882,000	547,400	815,900	358,500	31,700	163,100	34,500	25,800	60,300
1982	1,021,000	1,011,000	133,000	441,300	888,000	569,700	818,700	359,800	35,300	167,600	34,000	42,300	76,300
1983	1,041,600	1,031,500	139,000	435,100	902,500	596,300	803,300	356,200	39,100	175,300	60,100	64,800	124,900
1984	1,059,000	1,049,900	144,800	427,500	914,200	622,400	805,300	362,200	44,500	180,600	64,400	79,600	144,000
1985	1,073,000	1,063,200	150,200	417,400	922,800	645,800	820,400	384,300	52,300	195,000	50,100	66,500	116,600
1986	1,077,500	1,068,300	154,400	403,700	923,200	664,600	813,300	397,600	61,600	206,100	48,300	60,900	109,200
1987	1,089,000	1,085,600	158,400	398,500	930,600	687,100	808,200	395,800	67,000	225,500	55,400	65,800	121,200
1988	1,099,600	1,098,000	162,400	391,500	937,200	706,500	784,400	390,900	67,800	231,200	85,000	84,400	169,400
1989	1,098,200	1,105,200	164,700	382,800	933,500	722,400	749,600	373,100	78,200	234,100	105,700	115,200	220,900
1990	1,104,500	1,115,000	168,200	375,100	936,300	739,900	736,200	381,800	78,200	240,300	121,900	117,800	239,700
1991	1,118,300	1,125,100	172,900	367,700	945,400	757,400	714,500	380,500	87,900	245,000	143,000	131,900	274,900
1992	1,126,000	1,133,900	176,800	359,900	949,200	773,900	696,100	370,300	96,300	250,600	156,800	153,000	309,800
1993	1,133,700	1,142,600	180,700	352,300	952,900	790,300	706,000	387,100	85,500	239,800	161,400	163,400	324,800

## sources: Total Population aged 15-64

1951-76: Bloomfield (1984), census date

1981-92: Statistics Department INFOS, May 1993.  
(March 31 estimates)

1951-81 intercensal: linear interpolation

1993: extrapolation

## Employment:

1951-86: NZ Census (interpolations: Dept. of  
Labour Employment Survey)

1988-92: HLFS &amp; QES (Dept. of Statistics)

1987, 1993: HLFS only

1987-93 data scaled to conform with 1986 census

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## Specialist Tribunals and Management Strategy: Reflections on the Impact of Anti-Discrimination Legislation in the Public Sector

Louise Thornthwaite\*

*Industrial relations research on management strategy has tended to ignore the influence of individual labour laws enforced by specialist industrial tribunals. This paper looks at the effect of a particular specialist tribunal, which enforces anti-discrimination laws, on managerial strategy in public sector organisations. It argues that the formulation and implementation of management policies are influenced by exposure to the activities of specialist tribunals, indicating the partial origins of managerial strategy in fear, and its gradual accretive nature.*

Management strategy has become a central concern of industrial relations research. Conforming with the broader tradition of industrial relations research, however, treatments of this subject have tended to neglect the impact of the state's dispute settling institutions on management strategy. To the limited extent that consideration has been given to these institutions, analysis has centred on the role played, in Australia, by the arbitration system. This can be attributed to the overt and pervasive influence of the arbitration system, a crucial factor distinguishing Australian workplace industrial relations from those in such other countries as the United Kingdom and United States. In terms of comparative analysis, however, other institutions common to many western countries may also yield crucial conceptual cues. One important set of institutions which have been neglected are specialist industrial tribunals which enforce individual labour laws.

In 1983, Hepple noted of British industrial relations that "the language and philosophy of individual legal rights have become increasingly pervasive" (p.393). This has been similarly true of Australia and New Zealand. The widespread emergence of anti-discrimination legislation has been one of the more overt forms of this expansion of workers' rights over a wide terrain which includes superannuation, promotion and disciplinary appeals, unfair dismissal and workers compensation. Yet those specialist industrial tribunals which are not involved in wage and salary determination remain almost completely neglected in industrial relations research. Many of these tribunals are quasi-judicial rather than arbitral, and engaged in enforcing statutory rights concerning specific aspects of employment relations. The public and political gaze has similarly rested heavily on arbitration bodies rather than these specialist tribunals. This may partly relate to a conceptual distinction between collective and individual issues and an accompanying assumption that individual employment rights and their enforcing

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