

CENTRE FOR ECONOMIC POLICY RESEARCH

AUSTRALIAN NATIONAL UNIVERSITY

**COMPETING WITH DAD: CHANGES IN THE
INTERGENERATIONAL DISTRIBUTION OF
MALE LABOUR MARKET INCOME**

R.G. Gregory

DISCUSSION PAPER No. 400

May 1999

**Competing With Dad:
Changes in the Intergenerational Distribution
of Male Labour Market Income***

R.G. Gregory

**Economics Program
Research School of Social Sciences
Australian National University**

DISCUSSION PAPER NO. 400

May 1999

ISSN: 0725 430X

ISBN: 0 7315 2264 8

* **Revised version of a paper presented to the Commonwealth Department of Family and Community Services/Centre for Economic Policy Research, ANU, Joint Conference: Income Support, Labour Markets and Behaviour: A Research Agenda. 24-25 November 1998.**

The revised conference papers are being prepared for publication in a volume to be published by the Department of Family and Community Services in mid-1999.

CONTENTS

	Page
I. Introduction	1
II. The International Setting	2
Male Pay Inequality in Australia, UK and the US	2
<i>The trend towards low pay</i>	4
III. Life Time Effects and the Changing Distribution of Labour Market Income Among Australian Males	5
The Background	5
The Empirical Calculations	7
<i>Employment and age</i>	9
<i>The changing relationship between age and labour market income</i>	9
IV. Returning to the International Setting	13
V. Concluding Comments	14
References	16
Figures 1-6	17-19
List of Recent CEPR Discussion Papers	20

Competing with Dad: Changes in the Intergenerational Distribution of Male Labour Market Income

I. Introduction

Two decades ago a discussion of the interactions between expenditure on the welfare system and labour market changes would have focussed on the impact of changing unemployment levels. Today, the unemployment-welfare expenditure link is still important but another factor has been added. Increasingly welfare policy discussions are focussing on the relationship between wage changes and welfare payments. There are three important recurring themes.

First, the labour market has been generating wage falls among the low paid and changing the financial balance between low wages and social security benefits. After long periods of high unemployment, particularly long term unemployment, questions are increasingly raised as to whether a significant proportion of unemployment may be attributable to unemployment benefits that are too generous relative to employment at low wages.

Second, there are increasing calls to adopt labour market policies to weaken centralised wage fixing and unions and, in this way, encourage low wages to fall further. In order to avoid the rapid growth of the working poor that may result from these initiatives, it is often suggested that labour market deregulation policies should be accompanied by income subsidies for the low paid.¹ Under these circumstances, the demands on the social security budget will grow and there may be pressure to divert an increasing share of resources away from the unemployed towards those employed at low pay.

Third, if low wages fall and there is an inadequate employment response, poverty will increase. The combination of unemployment, and low wages when employed, will severely affect the ability of the poor to escape poverty.

Now that there is an increased interest in the interaction between wages and social security policy it seems natural to take the next step. This would involve combining the changes in employment and wages to focus on changing labour market income and to tease out some of the implications of the large changes that are occurring. Changes in labour market income can be an important contributor to changes in poverty.

There are many dimensions along which changing labour market income could be explored. We choose to direct attention to the changes that are occurring among males of different ages. The changes in Australia

¹ Wage subsidies should be thought of as part of the social security system whether the subsidy is paid directly in cash through the Department of Social Security or as an income tax credit paid by the Department of Taxation.

are very large. Changes of a similar magnitude are occurring in the UK and similar, but smaller, changes are observed in the US.

The paper is structured as follows. Part II provides some general background. It compares Australian changes in the distribution of male wages with changes in the UK and US. The US can be thought of as an unregulated labour market that perhaps describes the direction in which Australia is moving. The UK is particularly interesting because it has followed a policy of labour market deregulation and since many UK labour market institutions were similar to ours the experience there might be particularly relevant.

Part III widens the discussion beyond wages to employment and draws attention to the large changes that are occurring in male labour market income across different age groups. It focuses on wage and employment changes and documents the growing loss of labour market income among the young. We conjecture about some of the implications of these changes.

Part IV returns to the international context and compares the Australian labour market income changes across different age groups with the changes that are occurring in the US. It adds an employment dimension to the large US literature on wage inequality (see Levy and Murnane, 1992).

Part V offers concluding comments and speculates on the importance of these large changes for social security policy.

II. The International Setting

Male Pay Inequality in Australia, UK and the US

It is generally thought that the wage distribution narrowed within OECD member countries during the fifties, sixties and early seventies. Since the mid to late 1970s, however, there has been a break in this trend. The wage distribution has stayed much the same or widened (OECD 1993). A subset of English speaking countries—Australia, the US and UK—are especially noticeable. Their pay distributions have widened considerably and the trend is continuing.²

To illustrate these changes we begin as follows. First, weekly earnings of male full-time wage and salary earners in each of our three countries are ranked from the lowest to the highest. Then we calculate weekly earnings at each decile boundary. There has been some difficulty in accessing UK data before 1983 so for consistency the series for each country

² There is now some evidence that the pattern of change is becoming increasingly diverse across countries. The pay distribution in Canada has narrowed over the last five to ten years along with that of Finland and Germany (OECD 1996). The pay distribution has probably widened in NZ also but the data do not extend over a sufficiently long period to be useful for us.

begins at that date. The focus is on weekly earnings because the Australian data do not allow an accurate adjustment for hours worked.³

The degree of pay inequality is very different across these three countries. In 1995, for example, a male employed in Australia and placed at the 90th percentile of the adult male full-time full-week pay distribution earned 2.76 times that of a male at the 10th percentile (Table 1). In the UK the distribution was considerably wider and the ratio was 3.70 or 34 per cent more than in Australia. In the US the pay distribution is wider again and the pay ratio is 4.64, or 68 per cent more than the Australian ratio. Among English speaking countries Australia exhibits the most compressed pay structure but the degree of compression is not unusual when measured against European experience.

Table 1
Male Full-Time, Full-Week Earnings Ratios
Australia, United Kingdom & United States of America

Earnings Ratios	1976	1983	1995
<i>90/10 percentile</i>			
Australia	2.26	2.43	2.76
UK	–	2.75	3.70
USA	3.36	4.00	4.64
<i>10/50 percentile</i>			
Australia	0.72	0.68	0.62
UK	–	0.62	0.50
USA	0.52	0.45	0.44
<i>15–19 years/35–44 years</i>			
Australia	0.48	0.46	0.40
UK	–	0.40	0.31
USA	0.38	0.33	0.31

Source: Australia, *Weekly Earnings of Employees (Distribution)*, ABS Cat. No. 6310.0
US, *Current Population Survey (March)*
UK, *General Household Survey*

Changes in the pay distribution are indicated by changes in the ratio between full-time weekly earnings at the 10th and 90th percentile. These ratios are set at unity in 1983 for each of the three countries in our sample and the data smoothed by a two year moving average (Figure 1).

Since 1983 inequality of male weekly earnings has continued to increase in each of these countries. The smallest change in male wage

³ The data are collected from household surveys in each country. The Australian data are from *Weekly Earnings of Employees (Distribution)* ABS Catalogue number 6310.0. The US data are from the *Current Population Survey (March)*. The UK data are from the *General Household Survey*.

inequality has occurred in the US and Australia. Their experience has been very similar. The pay gap has widened about 13 per cent in Australia and 16 per cent in the US over thirteen years. It is not too difficult to conjecture as to reasons for a widening pay gap in the US. The labour market there is relatively unfettered by unions or wage regulations and, in principle, the wage distribution is free to change quickly in response to shifts in demand and supply. It appears as though there has been a shift in demand towards more educated and more experienced workers, not adequately matched by changes in supply, and the returns to experience and education have increased. In addition variation of earnings in each age and experience category has increased (Freeman and Katz 1995).

The steady increase in male wage inequality is more difficult to explain in Australia. Until recently Australian policy placed considerable emphasis on compressing the pay distribution by increasing pay levels of the low paid. There has also been an extensive system of wage regulations. Unlike the US, education returns have remained relatively stable but there has been a large shift in the returns to experience and the variation of earnings in each age group and education category has increased.

In the UK the change in inequality has been very large, 34 per cent over the twelve years of data.⁴ As in the US there has been a shift in demand towards more educated and experienced workers. But it appears that the important policy initiatives in the 1980s that changed the nature and relative power of labour market institutions had a substantial effect. As a result of Margaret Thatcher's policies unions were weakened and pay setting decentralised. This created the pre-conditions for low pay to fall and high pay to increase in response to changing demand and supply patterns. Among all OECD countries the change in pay inequality has been largest in the UK.

The trend towards low pay

The marked trend towards more pay inequality can be produced by a widening earnings gap between the median and the bottom or between the median and the top of the pay distribution. To focus more on low earnings Table 1 presents data for the gap between the 10th percentile and the median.

The difference in the level of male low pay relative to the median is considerable across these countries. The success of Australian institutions in achieving pay compression is clearly evident. In 1995 a male employed full-time in Australia and placed at the 10th percentile of the weekly earnings distribution receives considerable more per week than his UK and US counterparts. The ratios are 0.62, 0.50 and 0.44 respectively. These are quite large sums. In Australian 1997 dollars the income gaps in favour

⁴ The UK questionnaire was redesigned in 1992. It is possible therefore that there may be a break in the data between 1991 and 1992. In any event the larger increase in inequality was already apparent in the UK before 1992 (see Schmitt 1995).

of Australia are \$79, relative to the UK, and \$119 per week, relative to the US.

The widening pay gap between the median male weekly earnings from full-week full-time work and the 10th percentile of the male pay distributions are plotted in Figure 2 where the data have been smoothed by a two year moving average. It is noticeable over this period that in each country there has been a fall in male low wages, relative to the median. In the US the fall has been slight, about two per cent.⁵ Most of the growing inequality of male wages in the US over this period has been the result of increased wages at the top of the wage distribution. In Australia, the fall in male wages has been approximately 9 per cent and the decline has occurred steadily throughout the period. In the UK the fall has been very large, approximately 15 per cent. The marked contrast between the UK data and that of Australia and the US suggests that labour market deregulation in the UK during the late 1970s and early 1980s may have had a substantial effect, especially during the recession period that began in 1990.

Against this background we turn to a more detailed analysis of the Australian data. The next section focuses on wage and employment changes by age group and documents changes in labour market income.

III. Life Time Effects and the Changing Distribution of Labour Market Income among Australian Males

The Background

Individuals support themselves with income from many sources. They access labour market income from full and part-time work, private income from capital, within family contributions and government income through transfers such as Austudy, social security benefits and pensions. The balance among these income sources changes through life. For young males, family transfers and government benefits are very important. For males in the middle age groups the labour market dominates as an income source. For older males government and family transfers once again become important income sources.

It would be useful to document how income sources change as individuals become older and how the balance has been changing over recent decades. We could then explore some of the implications for the role of social security and the nature of Australian society. That task is a large one, however, and as a first step our attention is directed to the changing importance of labour market income over the lifetime of males.⁶

⁵ Over the longer period 1976-1997 the fall in male low wages has been about the same in the US and Australia (Gregory, Martin and Klug 1998).

⁶ The calculations are very rough and the data are not very rich but, nevertheless, the calculations should provide a good indication of the changes that are occurring. It would not be too difficult to extend the analysis to document the large increases in government

The framework for the exercise is illustrated as follows. If there is a steady state the age-labour market income profile might be represented as an inverted U shaped relationship. This relationship is generated primarily by two sets of factors.

The first contributor is that wages usually follow an inverted U shape across cohorts. Wages first increase with age as workers acquire more experience and are promoted up job ladders. The average wage for prime age males, for example, is usually about twice as high as the teenage full-time wage. Among older males, before retirement, the full-time wage often begins to fall. Where hourly wages depend on effort the amount of effort offered by the worker may begin to decline. Another reason is that those who lose employment in these age groups often experience considerable difficulty in finding a new job that pays as well as the old job. The wage-labour market experience profile (which is closely approximated by the age-wage relationship) is extremely well researched in economics (see Murphy and Welch, 1990).

The second contributor to the inverted U shape is that involvement in labour market activity changes over the life-time. Young males have a higher incidence of unemployment and more involvement in education so the full-time employment-population ratio is lower than that of the average male in the middle age groups. Once the employment-population peak is reached, older males begin to retire and the age-labour market income profile declines steeply.

In the absence of a steady state, and when the economy evolves through time, there are other forces that twist and change the relationship between age and labour market income. Once again there are two forces that have been particularly important. The first contributor to a twist in the relationship over the last few decades has been a tendency for the young to become increasingly better educated. Increasing levels of education may be expected to generate wage and employment effects that change the age-labour market income profile. There are three education effects that might be expected to steepen the profile:

- (i) As the young attend education institutions their ability to be involved in the labour market during these years is diminished and their full-time employment-population ratio will fall.
- (ii) Investment in education increases wages at later ages and more educated workers face steeper wage-age profiles that deliver the rate of return for their investment in education.
- (iii) If the group choosing to become better educated is disproportionately drawn from those who would have earned relatively high wages when young then there is a composition effect that lowers the average wage of the young.

There is one education effect that might flatten the profile. When better educated workers enter the workforce they may earn more during

income transfers. This would require shifting the analysis to the Income Distribution Surveys of 1982, 1986, 1990 and 1994-95 (Borland and Kennedy 1998).

the transition period than the older cohort in front of them. As the education levels of the young increase parts of the age-earnings profile may become flatter. The net effect of the increased education levels among the young is an empirical issue but it seems that on balance the age income profile should steepen.

The second contributor to changes in the age earnings profile in the absence of a steady state may be productivity gains which increase average wages through time. If productivity increases are age neutral then the age-labour market income profile is lifted by productivity increases. An important reason why middle aged workers earn more than when they were young, for example, is that everyone earns more as a result of wage increasing technical change. Of course, if technical change is not neutral with respect to age the age-income profile will twist. Thus, if technical change moves against the young and in favour of more experienced workers the curve will steepen.

Not a great deal is known as to the way in which changes in the relationship between age and labour market income impacts on society. Most of the economics literature has focused on the wage-age profile. The interactions among employment and wage changes and the macro implications are relatively under explored.

It is likely, among OECD economies, that when the age labour market income profile steepens there are more income transfers from the middle age groups to those at either end of the age distribution. These income transfers may be effected through many different agencies.

The income flow can occur within the family. In the US parents often begin saving for their children's university education when the child is born. When the young male is at university the income flows are often substantial. In a similar vein the family may contribute to the support of its aged members.

The income flow can also be facilitated by the state which may collect taxes from the middle aged and distribute some of the income to the young, in the form of unemployment benefits and subsidised education, and to the old, in the form of disability benefits, pensions and health services.

The Empirical Calculations

All the forces discussed in the previous section have been operating to an unusual degree in Australia and for expositional purposes we place them into three sets; (i) relative and real wage changes across age groups, (ii) changes in the relative employment-population ratio and (iii) the changes in the labour market income.

Relative and Real Wage Changes across Age Groups

The Australian hourly wage data is not as good as we would like so we begin with weekly earnings of males who work full-time. Figure 3 presents

the change in male real earnings from full-time employment for different age groups over the period since 1976. There is a consistent pattern. Between 1976 and 1984 real earnings of the middle age groups increased only slightly relative to the young and no age group experienced significant real wage increases. But since the early 1980s the wage gap between the age groups has increased in favour of the middle age group and moved against the young. The fall in full-time earnings of males 15-19 and 20-24 years, relative to full-time weekly earnings of males 35-44 year olds, is of the order of 17 per cent. In addition, the peak earnings age group has become older and moved from the 35-44 year old category to the 45-54 year old age category.

There is clearly a very large twist in the age earnings profile — reducing the pay of young males and increasing that of the middle age groups. This twist presents something of a puzzle. Consider the shift in terms of demand and supply. The size of different age groups has been changing in Australia and the population of the younger age groups has not grown significantly over the last twenty-five years. Between 1976 and 1997 the population of young males, 15-19 years, increased 6 per cent. The population of males, 35-44 years, increased 75 per cent and the increase for the 45-54 year old group was 53 per cent. Other things being equal, the pattern of population growth suggests that there should be a shortage of young workers and an excess supply of older workers and the wages of the young should increase relative to the middle age groups.

This type of argument became popular among US economist when analysing the effects of the baby boomers moving through the age structure of the US population.⁷ And yet, in Australia, the increase in relative demand for older workers has not only accounted for the increase in the population of older workers but gone further in that the employment changes, particularly for full-time workers, has magnified the population changes.

There is a another aspect to the puzzle of the falling wages for the young. Although the young are better educated than older workers this has not increased the wages of the young relative to workers in the older age groups. Indeed, until the last few years the real wage of the younger age groups fell. Once again the evidence suggests a twist in the demand patterns for male employees to favour the older more experienced workers.

It is not clear why this twist has occurred despite the changing labour supply patterns. Similar twists have occurred in the UK and the US but their emphasis seems to have been directed towards the widening differential by education categories. Much more seems to be happening which has largely escaped attention.

⁷ Welch (1979) concludes that the evidence is very direct: as work experience distributions shifted toward increased proportion of young workers their relative wages fell. This result does not seem apparent in the Australian data. There is no evidence of wage rises as the young age groups fall in numbers relative to older age groups.

The impact of this twist on real wages of different age groups will depend in the extent to which the age-earnings profile has shifted upwards over the years in response to technical change. During the 1950s, 1960s and 1970s the upward shift in the age-earnings profile was considerable. The average growth of male real wages averaged 28 per cent per decade. Over the 1980s, however, accumulated real wage growth was 6 per cent. The slow down in real wage growth has been extraordinary. Since 1976 the total per capita increase over two decades has been the equivalent of an average three year increase during earlier decades. The scope for the average real wage increase to offset any adverse real wage effects of the twist in the age-earnings profile therefore is quite limited. The slight growth in average real wages, provides an opportunity for substantial falls in real wages for a significant number of men. It also opens the possibility that many young Australian males at the bottom of the wage distribution may be worse off in economic terms than their fathers were when they were young.

Employment and age

The changing pattern of employment among males, and particularly among full-time workers, reinforces the changes that are observed among earnings. Those groups with the largest fall in weekly earnings have been subject to the largest falls in full-time employment, even after taking account of population changes. This suggests that the employment changes are predominantly being driven by demand shifts across age groups.

Figure 4 plots the full-time employment-population ratio for each age group in 1976. The same general inverted U shape is evident as in the wage-experience profile. The change in the pattern of full-time employment since 1976 is quite exceptional. In every age group full-time employment has fallen but the largest falls have been among the youngest and oldest age groups. The employment-population ratio fell 56 per cent for the 15-19 year old group, 28 per cent for those 20-24 year old and 14 per cent for those 25-34 years.

Part-time employment has provided some offset to the loss of full-time employment. Part-time employment is growing among those groups which have lost full-time employment but in no instance does the growth in part-time jobs offset the full-time employment loss.

The changing relationship between Age and Labour Market Income

Labour market income is the product of employment and wages. Age groups with falling employment levels have also lost real and relative labour income when employed. This suggests that the changes in labour income across age groups might be very large indeed. We begin with labour income from full-time work.

For each year since 1976, when the earnings data first became available, an estimate of aggregate full-time employment income for each age group is calculated as the product of the number of full-time employed

persons and average weekly income from full-time employment. We begin with full-time employment because, as indicated earlier, the reduction in the full-time employment population ratio has been quite remarkable.

Next, aggregate full-time employment income is divided by the number of men in each age group. This produces an estimate of the per capita labour market income of all men in the age group whether employed full-time or not. The data are expressed in 1997 prices and to keep the analysis simple no allowance is made for income taxes.

The changes are exceptional (Figure 5). At each end of the age distribution there are considerable falls in real per capita full-time employment income. Consider young men first. For those 15-19 years per capita full-time employment income has fallen by 60 per cent or \$96 per week over the 1976-1997 period. For young men, 20-24 years, the fall is 32 per cent or \$149 per week.

The fall in full-time employment income is not confined to the very young. For those 25-34 years the income fall is \$93 per week. Then, for men between 35 and 54 years the income fall per week is marginal. For those 60-64 years the weekly income fall is \$129.

The importance of these large income falls from full-time employment can be further illustrated by the following calculations. Suppose the 1976 and 1997 cross section data are treated as though they were taken from a hypothetical steady state. That is, the average income observed in each age category in 1976 is assumed to describe the future stream of income from full-time work of a young male aged 16 years. This assumption is then used to calculate the amount of market income from full-time work that will pass through the hands of a young male between his 16th and 20th birthday (Table 2). From the 1976 cross section the aggregate income flow over these 5 years would be \$42,000. From the 1997 cross section data the aggregate income flow would fall to \$17,000. This is a fall of 60 per cent or \$25,000. The same calculation can be done for the other age groups (Table 2). The income falls for young males are very large. By 25 years of age, for example, the accumulated income loss is \$64,000 and by 34 years the loss is \$112,000.

Such large falls in the full-time labour market income of young males may be a large part of the driving forces for some of the social changes observed among young males. It is quite clear that the ability of young males to accumulate income from full-time work to finance household formation, for example, or to support children has fallen to a very large degree. Their ability to separate themselves financially from parents has weakened. The insecurity generated by real wage and employment losses might be expected to be considerable. The reality approximated by these data explains the oft heard remark that, on average, young men today cannot expect to be as well off as their fathers, at least in terms of their ability to earn their way from full-time work. To the extent that they are able to maintain a higher standard of living the money must come from somewhere else.

Table 2
Labour Market Income - Males in Full Time Employment
Australia 1976-1997

	Age Group:						
	15-19	20-24	25-34	35-44	45-54	55-59	60-64
Labour Market Income per capita weekly income dollars							
1976	162	461	652	681	650	552	374
1997	66	312	559	679	650	489	245
Difference	-96	-149	-93	-2	0	-63	-129
Accumulated Labour Market Income per capita (\$000)							
1976	42	162	501	855	1193	1337	1381
1997	17	98	389	742	1080	1207	1232
Difference	-25	-64	-112	-113	-113	-130	-149

Between 35 and 54 years the further reduction in the average income level is small but it is clear that there is no clawing back of this income loss among the young. For the older age group the income losses begin again. A further \$17,000 is lost between 55 and 59 years and another \$19,000 between 60 and 64 years. Over this hypothetical working life time the income loss is around \$149,000.

To what extent are these income losses offset by the increase in part-time employment. Part-time employment has been increasing, particularly for young males where it accounts for more than half their employment. For all men the proportion of jobs that is part-time is now around 12 per cent. The same empirical exercise as above is used to calculate changing income from part-time employment.

The published income data from part-time work are not very extensive. As a first approximation to the missing data we take the ratio of part-time to full-time weekly earnings for each age group from 1981 data which was obtained from the ABS before the new charging practices of the ABS made the analysis of unpublished data so expensive. This ratio is applied to average full-time earnings in each age group to calculate a part-time wage. The product of part-time employment and the part-time wage produces an estimate of part-time employment income.

Part-time work has become an important source of income for the young and on the basis of these rough calculations provides teenage males with approximately one third of their labour market income and for those

in the 20 to 24 year old age group the proportion is 13 per cent. For the other age groups the contribution of part-time employment is quite small.

The growing importance of part-time employment income does not offset the loss of full-time employment income (Table 3). Furthermore, to the extent that part-time work has become important for men it implies a different type of labour market involvement; an involvement with few fringe benefits or with long term career prospects.

Table 3
Labour Market Income - All Males
Australia 1976-1997

	Age Group:						
	15-19	20-24	25-34	35-44	45-54	55-59	60-64
Labour Market Income per capita weekly income dollars:							
1976	169	475	658	694	665	573	375
1997	90	354	483	704	677	523	304
Difference	-79	-121	-75	10	12	-50	-71
Accumulated Labour Market Income per capita (\$000):							
1976	43	167	509	870	1216	1356	1414
1997	23	115	418	784	1136	1272	1303
Difference	-20	-52	-91	-86	-80	-93	-111

Although these calculations are rough approximations they capture and illustrate the large changes that are occurring. A more thorough analysis would take account of the following.

First, our calculations are based on average data. It is not difficult to imagine a more sophisticated analysis that might take into account the changing distribution of labour market income within each age group. In addition, it is well known that the distribution of employment probabilities is not random within and across each age group. The unemployed tends to be drawn disproportionately from those socio-economic groups where the average wage is falling. It is also likely that a higher probability of job loss through life tends to follow those who have experienced significant unemployment spells. These more complicated calculations may well indicate that for young males with low market income the gap between their income prospects now and the income prospects of their fathers at the same age may well be widening against the young.

Second, the hypothetical life-time earnings calculations which are produced to illustrate the large changes that are occurring are based on a steady state assumption. For some purposes a cohort analysis which follows individuals though their life time may be preferable but the difficulty is that insufficient time has passed since these large changes began. The data show, however, that because the changes have continued over this period the steady state assumption applied each year understates the degree of change that is occurring. If anything the shift in income between the young and middle age groups calculated from a cohort analysis is greater than that suggested by our calculations.

Third, at this point an important part of the story is missing. When income transfers occur within the family the transfers are from the family to the young rather than from the father alone. We need to document the labour market income changes that are occurring among mothers and other members of the family to put together a comprehensive picture of the large changes that are occurring.

Women have been subject to similar labour market changes – labour market income is also redistributing towards the older age groups but with two important differences. One difference is that labour market incomes over this period have been falling for women under 25 years, as it has for males under 25 years, but all other female age groups are experiencing increases in labour market income. The other difference is that over the steady state lifetime the labour market income of women has increased substantially. This suggests that one of the important sources of income redistribution within the family may well be between middle aged women to their children over 16 years who in previous times may have had access to labour market income.

IV. Returning to the International Setting

A considerable part of the changing age-labour market profile might be explained by the poor employment growth in Australia. It might be worthwhile, therefore to look at the US data, as among OECD countries the US has experienced the strongest employment growth over this period.

Figure 6 plots the change in real average full-time labour market income per capita for each US male age group between 1976 and 1995, and between 1976-1997 for Australia. For all age groups under 35 years male labour market income has fallen in real terms, although the losses have been slightly less than in Australia. For the 15-19 age group the loss in income is 44 per cent. For the next age group, 20-24 years, the loss is 30 per cent. It is only after 35 years of age that male real labour market income is higher in 1995 than in 1976. As in Australia the largest increase in per capita income is in the 45-54 year old age group. Despite the different history of employment growth of the two countries there is a very similar pattern of income change.

We can also calculate the changes in accumulated labour market income assuming a steady state in 1976 and 1995 (US) and 1997 (Australia). These calculations also produce similar results across the two countries. In the US the average loss of accumulated labour market income by 34 years of age is \$70,000 (an 18 per cent loss between 1976 and 1995) and it is only after passing 45 years of age that the 1995 accumulated labour market income exceeds that of the 1976 cross-section. Over the working lifetime the increase in male labour market income is 3 per cent.

V. Concluding Comments

We have documented very large changes in the distribution of male labour market income across different age groups. The age labour market income profile is twisting markedly and becoming steeper. Is this a source of concern? It all depends on the process producing these changes.

Some of the change is being generated by increased education participation of the young depressing their employment opportunities as they study. This process would not be regarded as a bad outcome although higher education levels increase the pressure on all families to redistribute income to their children. This education effect, however, cannot explain falling relative wages and employment for males 25-34 years. Indeed increased education levels might be expected to increase the wages and employment levels of this group⁸.

Some of the twist in the age-labour market income profile may be the result of the poor macro performance of the Australian labour market. In an environment of insufficient jobs the young suffer most from lack of employment. Their wages begin to fall as excess supply is increasingly concentrated on the group. This experience is very evident over the employment cycles. During each recession young people lose a disproportionate share of full-time jobs and during each recovery phase their employment does not recover.

Finally, the new labour market patterns suggest that poverty may be increasingly concentrated on particular groups. For example, if the young become long term unemployed and when employed they are paid relatively low wages their poverty cycle is not broken by employment. An earned income tax credit that pays additional income to those with children does nothing to help alleviate the poverty for the childless worker.

What is the next step and why might these results be of interest for the development of social security policy and the evolution of Australia society?

First, these results suggest that for the young to maintain their living standards, relative to the middle age groups, they need to access

⁸ Of course more education reduces the labour market experience of this group which *ceteris paribus*, will depress income but, on balance within this age group, the positive income effects of additional education predominates.

income from somewhere else other than the labour market. The two obvious sources are government and the family.

Over the last fifty years or so governments have increasingly accepted responsibility for income transfers that in previous times were the province of the family. There has been some questioning as to whether these trends should continue and there is some evidence that government is attempting to reduce it's responsibility. Australian governments, for example, have introduced more extensive family income testing before providing young adults with income support such as unemployment benefits. Family income testing for education support for young adults is also being extended.

In the US the discussion as to the conflict between the state and the family is more vigorous and extreme but similar debates can be found here.

Second, to the extent that the young are increasingly being forced on to the family for income support, the income of the family and the attitude of the senior family members towards intra family income transfers become increasingly important. Young males are losing some of their ability to be independent of their parents as the need for intra-family income transfers may become more important.

Third, these trends suggest that the scope for inequality to be perpetuated across generations may be increased.

Fourth, one source of income for males is access to female income either through transfers from working mothers to young males to from female partners.

References

OECD, *Employment Outlook*, Paris, July 1993

OECD, *Employment Outlook*, Paris, July 1996

Freeman, R.F. and L.F. Katz, eds, *Differences and Changes in Wage Structure*, National Bureau of Economic Research, University of Chicago Press, 1995

Schmitt, J., "The Changing Structure of Male Earnings in Britain 1974-1988", in *Differences in Changes in Wages Structure*, R.B. Freeman and L.F. Katz, eds, National Bureau of Economic Research, University of Chicago, Press, 1995

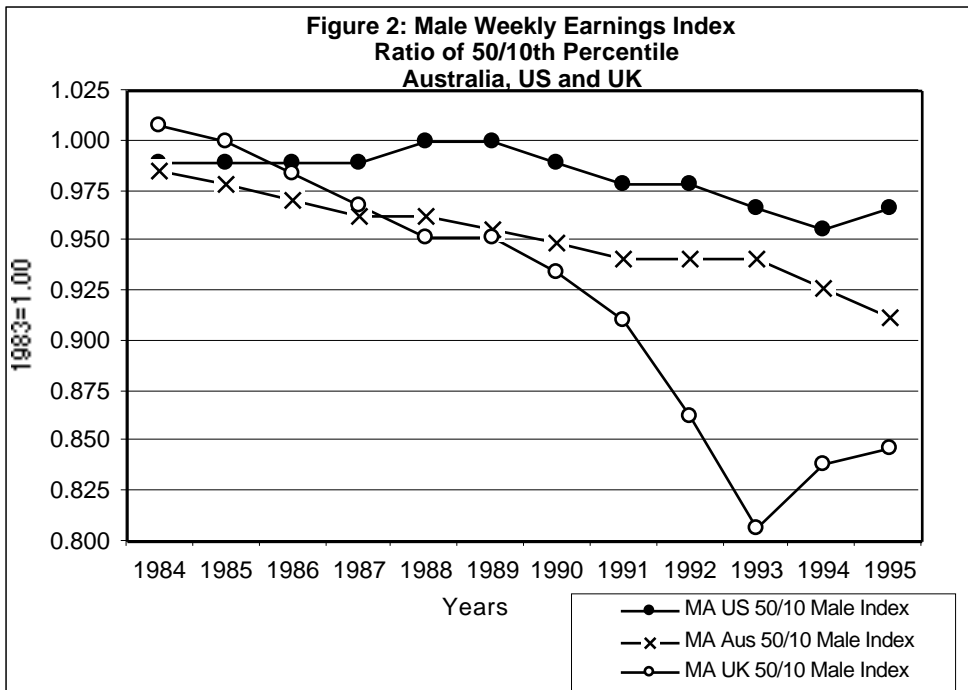
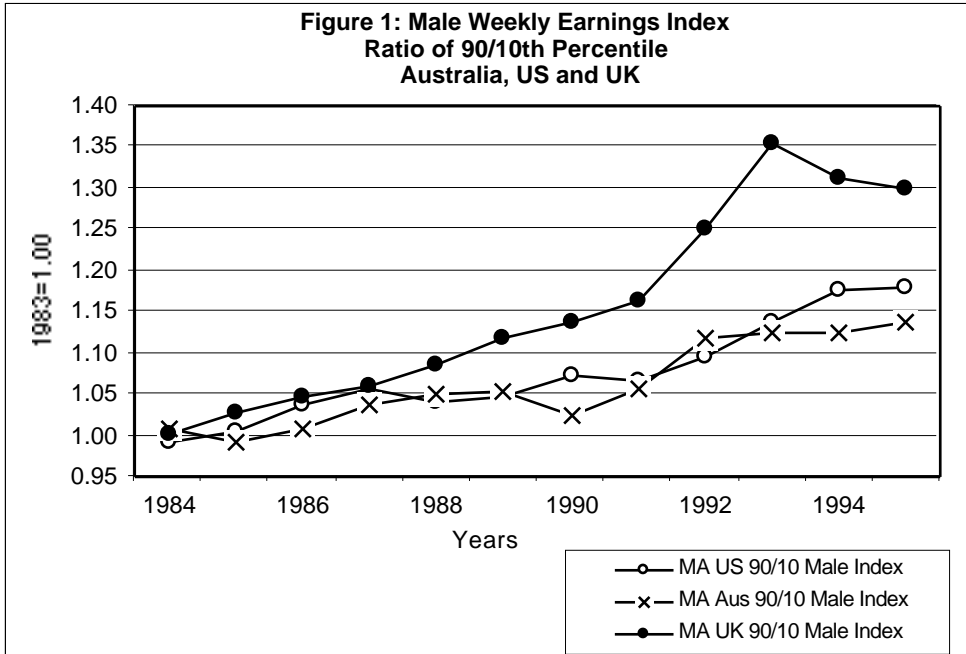
Borland, J. and S. Kennedy, "Earnings Inequality in Australia in the 1980s and 1990s". Centre for Economic Policy Research, Discussion Paper, No. 389, June 1998.

Levy F. and R Murnane, "US Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations", *Journal of Economic Literature*, Sept. 1992 Vol. XXX Number 3.

Murphy, K. and F. Welch, "Empirical Age Earnings Profiles", *Journal of Labour Economics* 8(2): 202-29, April 1990.

Welch Finis, "Effects of Cohort Size on Earnings: The Baby Boom Babies' Financial Bust", *Journal of Political Economy* Part 2, 87(5): S65-97, October. 1979.

Gregory, R., Y. Martin and E. Klug, "Labour Market Deregulation, Relative Wages and the Social Security System", 1998 (mimeo).



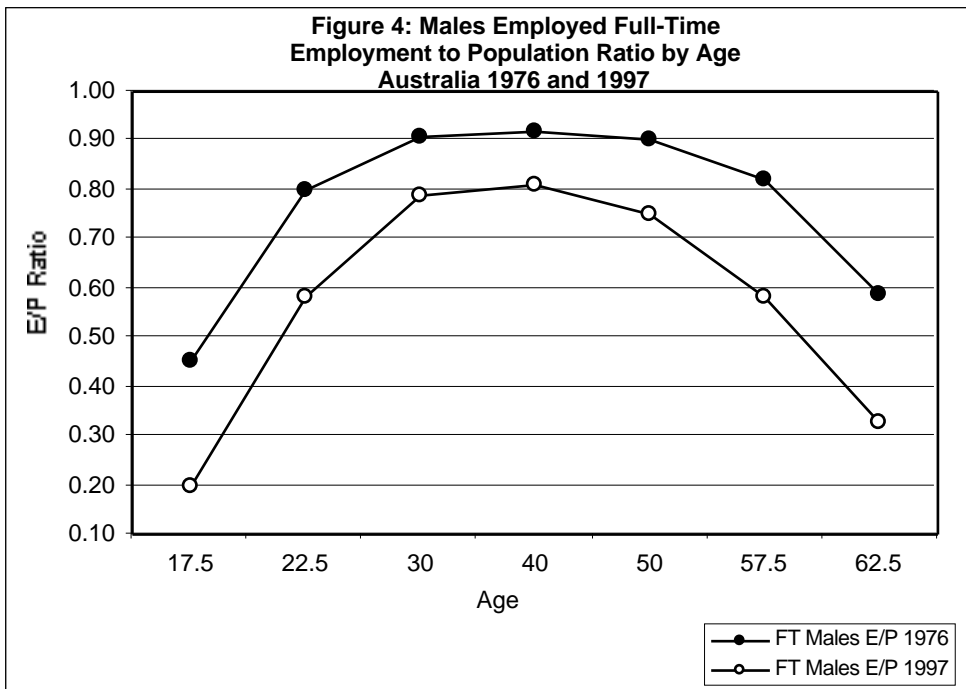
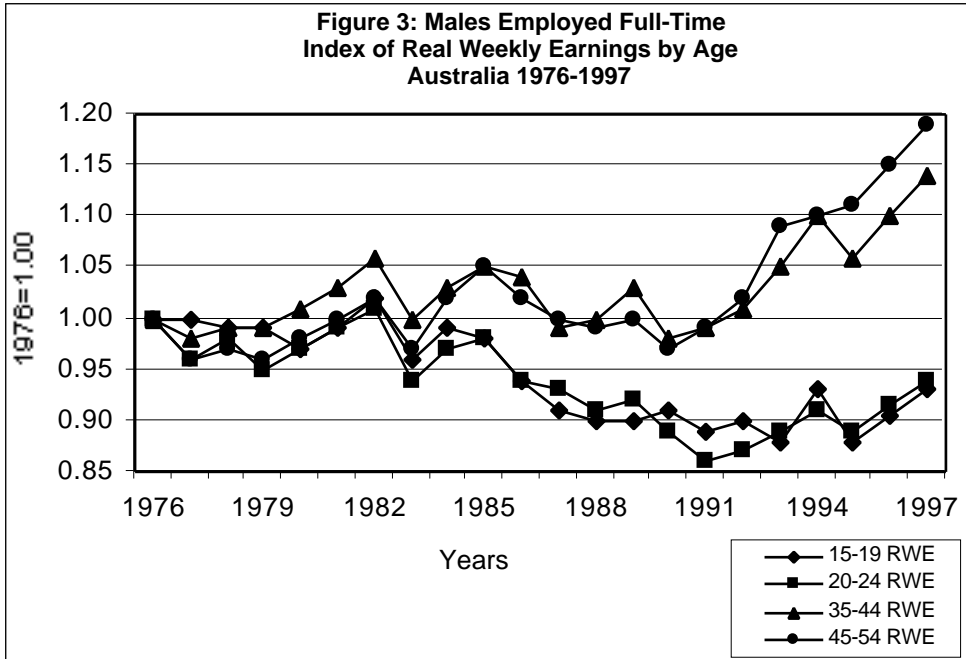


Figure 5 - Males, Australia, 1976-97 Difference in FT Real Per Capita Average Labour Market Income by Age Group

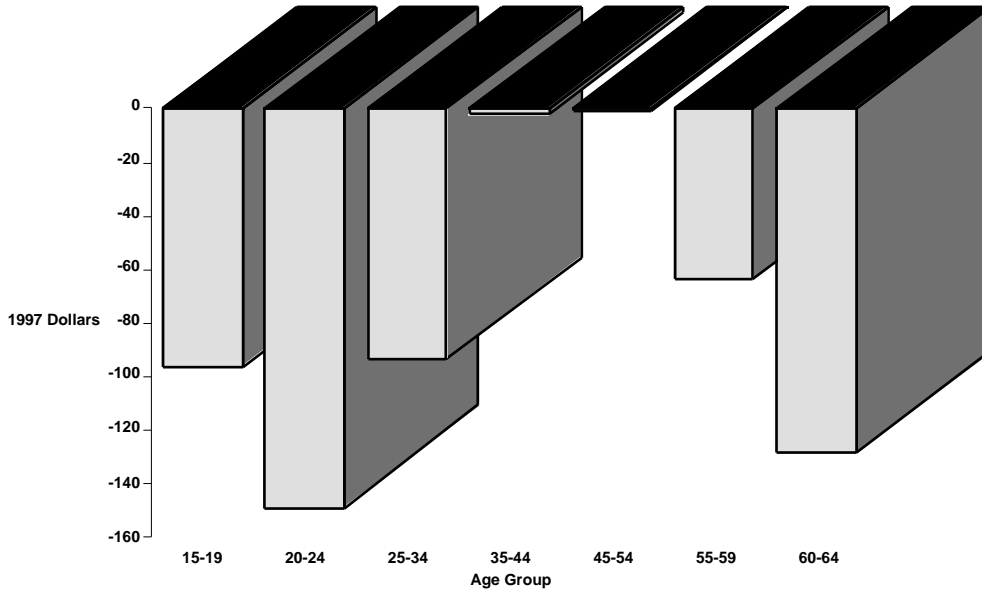


Figure 6 - Males, US and Australia - Difference in FT Real Per Capita Average Labour Market Income by Age Group
Australia 1976-1997, US 1976-1995

