

Rising on the Tasman Tide: Income Inequality in Australia and New Zealand in the 1980s

Author:

Saunders, Peter

Publication details:

Working Paper No. 49

SPRC Discussion Paper

0733409113 (ISBN)

1447-8978 (ISSN)

Publication Date:

1994

DOI:

<https://doi.org/10.26190/unsworks/184>

License:

<https://creativecommons.org/licenses/by-nc-nd/3.0/au/>

Link to license to see what you are allowed to do with this resource.

Downloaded from <http://hdl.handle.net/1959.4/33970> in <https://unsworks.unsw.edu.au> on 2024-03-28

Rising on the Tasman Tide:
Income Inequality in
Australia and New Zealand
in the 1980s

by
Peter Saunders



The Social Policy Research Centre (formerly the Social Welfare Research Centre) was established in January 1980 under an Agreement between the University of New South Wales and the Commonwealth Government. In accordance with the Agreement the Centre is operated by the University as an independent unit within the University. The Director of the Centre is responsible to the Vice-Chancellor and receives advice in formulating the Centre's research agenda from a Management Board.

SOCIAL POLICY RESEARCH CENTRE DISCUSSION PAPERS are intended as a forum for the publication of selected research papers on research within the Centre, or commissioned by the Centre, for discussion and comment in the research community and/or welfare sector prior to more formal publication. Limited copies of each DISCUSSION PAPER will be available on a first-come, first-served basis from the Publications and Information Officer, Social Policy Research Centre, University of New South Wales, Sydney NSW 2052 [tel: (02) 385 3857]. A full list of DISCUSSION PAPERS can be found at the back of this DISCUSSION PAPER.

The series is indebted to Diana Encel for her continuing editorial contribution.

As with all of the Centre's publications, the views expressed in this DISCUSSION PAPER do not reflect any official position on the part of the Centre.
--

Anthony King
Editor

**Rising on the Tasman Tide:
Income Inequality in Australia and New Zealand
in the 1980s**

Peter Saunders

ISBN 0 7334 0911 3
ISSN 1037 2741

This study would not have been possible without the assistance and advice of Mary Mowbray. The author would like to acknowledge her help, the comments of Anthony King and the research assistance of George Matheson, but wishes to accept full responsibility for all errors of fact or interpretation.

Abstract

Throughout the 1980s, tax and transfer policies in Australia and New Zealand have followed broadly similar paths. Reductions in personal tax rates have benefited those on highest incomes, while increased targeting of transfers have affected those on low to middle incomes. This paper explores how the distributions of income in both countries have responded to these and other changes. The approach adopted is to replicate the methods utilised in a recent study for New Zealand undertaken within the Department of Social Welfare so as to produce comparable results for Australia. Comparisons of disposable incomes (both unadjusted and adjusted for needs using an equivalence scale) allow the incomes and living standards of different household types in each country to be compared. This is followed by a comparison of the two income distributions, which reveals a clear trend towards increased inequality in both countries since the mid-1980s. The change in inequality in New Zealand after 1985-86 was such that by 1989-90 its distribution was no longer unambiguously more equal than that in Australia, as it had been earlier in the decade. The paper concludes with a brief discussion of the role of some of the measurement issues in explaining the differences observed in the analysis.

1 Introduction

Interest in the topic of income distribution has grown enormously in the past decade, spurred by two developments. The first is the increased quality and availability of survey data on household incomes which has been made publicly available in many countries in unit record form by national statistical agencies. The second has been driven by increasing evidence for a range of countries that the distribution of income has become more unequal since around the mid-1970s. This evidence has pushed inequality back onto the policy agenda, raising questions about why this has happened, and what (if anything) should be done about it.

Within the generally expanding field of research on income distribution, application of the cross-national comparative method has grown particularly rapidly. Again, this has been facilitated by increased data availability associated with ventures like the Luxembourg Income Study (LIS), reinforced by interest in delineating the proximate causes of the increase in inequality into those which are international in origin and those which reflect domestic factors and policy responses. There is now a good deal of evidence which indicates that much of the cause of the increase in inequality over the 1980s was international, though less agreement at this stage regarding precisely which factors have contributed most.

In a recent review, for example, Atkinson (1993) concludes from evidence for a range of OECD countries (including Australia and New Zealand) that:

The results cited cover only a selection of countries, but they are sufficient to demonstrate the risks in making any generalisation about the world-wide pattern of changes in income inequality ... while common economic forces have undoubtedly been at work, we have also to look at national factors, and particularly national policies, in seeking an explanation of the changes in inequality. (Atkinson, 1993: 23)

In a similar vein, Gottschalk and Joyce (1991; 1992) use data from the LIS project to investigate the underlying causes of the increase in inequality and

conclude that industrialisation does not appear to explain the observed changes, but that:

While there is still no 'smoking gun', this study shows that both international competition and technological change remain as primary suspects of the cause of rising inequality. (Gottschalk and Joyce, 1992: 24)

Other studies which document and review the international evidence on recent trends in income distribution in capitalist countries include Gardiner (1993) and Jäntti (1993). Trends in income distribution in the 1980s in countries of the former Eastern European block are analysed in detail in Atkinson and Micklewright (1992). The whole topic has been subject to a comprehensive review commissioned by the OECD which is due to be published later this year (Atkinson, Rainwater and Smeeding, 1994; forthcoming).

Within the broad canvas of conceptual, methodological, practical and causal issues associated with these developments, the aims of this paper are very limited. It is nonetheless important to draw attention to the international literature in an article such as this with more specific focus, because it serves to place the results presented below in context. Although the geographical isolation of Australia and New Zealand is unchanged, there can be no doubt that their relative economic isolation has been rapidly eroded over the last decade. For both countries, the need to internationalise has been at the forefront of economic and public policy reform throughout the 1980s. This has left both far more exposed to international economic forces than ever before, and as the closed economy fortress walls have crumbled, those broader economic forces have exerted their influences in both countries. No longer can domestic economic issues be studied within a purely nationalistic framework of cause and response even though, as the evidence makes clear, domestic policy responses do have an important impact on how international economic forces influence the nature and extent of domestic inequality (Atkinson, 1993). This is now as true for the study of income distribution as it was previously for research into the level of national income itself.

One thing does, however, need to be emphasised. This is that it is outcomes which matter domestically, which means that the spotlight falls very much

on the tax-transfer system and its effectiveness in offsetting, or at least alleviating, the tendency towards inequality emanating from the world at large. It is no comfort to those suffering domestically to be told that the causes of their misery lie elsewhere. In this sense, the way in which domestic policies respond to the increased tendency to inequality puts the post-war welfare state consensus to the test. Without reaffirmation of the role and impact of domestic redistributive mechanisms, it is doubtful whether the economic changes experienced in both Australia and New Zealand over the last decade would have been acceptable in either country. This is the sense in which the welfare state, and social policies more generally, can facilitate rather than impede the economic transformations necessary to improve international competitiveness.

This paper attempts to make a modest contribution to this important debate by providing some comparisons of the trends in income distribution in Australia and New Zealand between 1981-82 and 1989-90. Its aim is to extend earlier research along these lines reported in the studies by Saunders, Hobbes and Stott (1989), Saunders, Stott and Hobbes (1991) and Saunders (1992; 1994). The period of analysis in the current study is restricted by the unavailability of data for the period prior to 1981-82 and by the fact that no Australian survey of household incomes has been undertaken since 1990 (although a new income survey is about to be undertaken by the Australian Bureau of Statistics). The estimates for New Zealand have been derived directly from the *Incomes Monitoring Report, 1981-1991* recently released by the Social Policy Agency of the New Zealand Department of Social Welfare (Mowbray, 1993). These estimates have been replicated using Australian data and comparisons made between the two national income distributions and how they changed over the period. No attempt is made to investigate the causes of the observed changes in any formal way, although the analysis provides some hints as to what some of these might be.

The paper is organised as follows: in Section 2, the methods and assumptions are spelt out and any limitations and qualifications alluded to. The main results are presented and discussed in Section 3, while the conclusions of the analysis are summarised in Section 4.

2 Data and Measurement Issues

The New Zealand data used by Mowbray (1993) were derived from the *Household Expenditure and Income Surveys* conducted by the Department of Statistics each alternate year up to 1987-88 and each year since then. Although there are some important differences in survey method, the data produced from these surveys are similar to those produced for Australia by the Australian Bureau of Statistics (ABS) from its household income distribution surveys. These surveys have been conducted three times during the 1980s - in 1982, 1986 and 1990 - with income information collected both at the time of each survey (in weekly amounts) and for the preceding financial year. The analysis is thus restricted to the financial years (commencing 1 July in Australia and 1 April in New Zealand) 1981-82, 1985-86 and 1989-90.

Table 1 summarises some basic descriptive statistics from the relevant surveys. The main point to note here is that the Australian sample is generally around four times the size of the New Zealand sample, except in 1986 when resource constraints forced a smaller Australian sample to be surveyed. Both countries experienced a decline in average household size over the period, a reflection of the declining birth rate combined with increasing longevity and other factors causing more adults to be living alone. In terms of current (weekly) real household incomes, Australia experienced a slight decline on average up until 1986 and a slight increase thereafter, while in New Zealand average weekly household income declined sharply between 1982 and 1986, but stayed virtually constant between then and 1990.

As noted earlier, in deriving the Australian estimates which follow, every effort was made to follow the same procedures as those employed by Mowbray (1993). Several features of the techniques used are important to document, in part because it was not always possible to utilise identical methods because of data limitations. The most important points to emphasise in this context are:

- the basic unit of analysis is the **household**, defined in Mowbray (1993: 1) as: '... a group of people living together and making common provision of the necessities of life'. In practice, however, for both

Table 1: Basic Sample Descriptive Statistics (Unweighted)

	Australia			New Zealand		
	1981-82	1985-86	1989-90	1981-82	1985-86	1989-90
Number of households	13425	7528	13607	3487	3439	3348
Number of persons	37675	20430	36293	10540	9897	9188
- adults	27656	15363	27562	7462	7198	6899
- children	10019	5067	8731	3078	2699	2289
Persons per household	2.81	2.71	2.67	3.00	2.88	2.74
- adults	2.06	2.04	2.03	2.14	2.09	2.06
- children	0.75	0.67	0.64	0.88	0.78	0.67
Weekly household income (\$1991)	A\$736	A\$732	A\$740	NZ\$876	NZ\$803	NZ\$807

countries, the household has been defined as a group of people living in a single dwelling, irrespective of whether or not they are 'making common provision of the necessities of life';

- dependent children are defined in the New Zealand data as those aged 15 and under or aged 16 to 18 and in schooling. In Australia, dependent children are defined to include those aged under 15 or aged 15 to 20 and a full-time student. All other household members are defined as adults;
- except where noted, incomes refer to the financial year (1 April to 31 March in New Zealand; 1 July to 30 June in Australia). For both countries, incomes have been inflated to March 1991. This involved inflating incomes for earlier years by the ratio of the CPI in the March quarter 1991 to the average of the relevant CPI figures over the financial years to which the data refer;
- the concept of **total income** used in the New Zealand study does not correspond to **gross income** as conventionally defined in Australia,

because in the former case family payments (family care or, more recently, family support) are excluded and incorporated as negative taxes in the estimation of disposable income. The following comparisons thus focus almost entirely on **disposable income** only;

- the equivalence scale used to calculate equivalent (disposable) income is the 'revised Jensen equivalence scale', described in Jensen (1988). The Australian results followed the procedures used in New Zealand regarding the ages of children (i.e. children's ages were only distinguished after 1987-88). In order to apply this method in 1989-90 in Australia, it was necessary to assign specific ages to Australian children in certain age ranges using a randomised assignment procedure;
- income tax was imputed in all three years in New Zealand using ASSET, the tax modelling system developed by the New Zealand Department of Statistics. In Australia, tax was imputed in 1981-82 using a model developed by the Social Policy Research Centre (SPRC). In 1985-86, data on actual tax payments were collected in the survey and, where gaps existed (in about 10 per cent of cases) tax was imputed by ABS. In 1989-90, tax was imputed in all cases by the ABS prior to release of the data tape; and
- negative incomes from self-employment losses were deducted from any positive income (even if the final income figure was negative) except in Australia in 1981-82, when self-employment losses were re-coded to zero by ABS prior to release of the tape. The implications of this latter difference are discussed further below.

The main point to emphasise from these descriptions is that, with few exceptions, it was possible to apply virtually the same concepts and methods to the two data sets. This suggests that any differences which emerge in the comparisons which follow are unlikely to be a consequence of differences in the data (with one notable exception, discussed later) and can thus be regarded as reasonably reliable in indicating actual differences in the level and distribution of incomes in the two countries.

3 Results

3.1 Mean Incomes

Table 2 presents information on mean and median annual household disposable income levels in both countries, expressed in national currencies calculated in constant (1991) dollars. These results indicate that in Australia, mean real income declined slightly over the period as a whole, reflecting a marked decline up to 1985-86 and a modest increase between then and 1989-90. In New Zealand, mean income fell very sharply up to 1985-86 and rose considerably thereafter, but not by enough to offset the earlier decline. The real annual income changes in Table 2 have the same sign as the mean weekly income changes reported in Table 1, except that in both countries (particularly in New Zealand after 1985-86) the changes in mean annual income are larger than the changes in mean weekly income. There is no obvious explanation for this, although the weekly income figures are unweighted, and may in any case be more sensitive to the particular point in time (and thus in the business cycle) when the surveys were undertaken.

In both countries, median income declined in real terms consistently over the period, particularly in the period prior to 1985-86. The decline was greatest in New Zealand, where it continued to decline markedly even after 1985-86, by which time median income in Australia had stabilised. As a consequence of these changes, the ratio of mean to median income rose in both countries between 1981-82 and 1989-90 - by 4.1 per cent in Australia and 12.6 per cent in New Zealand. This is suggestive of an increase in overall inequality, an issue explored in more detail below.

Table 3 shows the mean disposable income levels for different household types in each country. Again, these figures are expressed in 1991 dollars of each country's national currency. These estimates indicate that in both countries, households with three or more adults had the highest mean incomes - over 50 per cent above the overall mean income for all households. Single pensioner/superannuant households had lowest mean incomes in both countries, particularly so in Australia, followed by sole parent households.

Table 2: Mean and Median Disposable Income Levels (National currencies, in \$1991)

	Australia		New Zealand	
	Mean	Median	Mean	Median
1981-82	30960	28540	34040	31060
1985-86	30040	27420	31170	28150
1989-90	30740	27210	33280	26970
Percentage change:				
1981-82 to 1985-86	-3.0	-3.9	- 8.4	-9.4
1985-86 to 1989-90	+2.3	-0.8	+ 6.8	-4.2
1981-82 to 1989-90	-0.7	-4.7	- 2.2	-13.2

In general, therefore, the single most important determinant of household income in both countries is the number of adults in the household, which reflects the ability to engage in market work and thus receive earnings. Within households with a given number of adults, age is the next most important factor determining household income, specifically whether household members have retired or not.

Between 1981-82 and 1989-90, both Australian and New Zealand pensioner households experienced significant declines in average real disposable income. To some extent, this may be a consequence of the increased targeting of benefits for the elderly which occurred in both countries. These moves will have tended to remove from receipt of pension those above pension age with the highest non-pension (and hence total) incomes. As a consequence, the average incomes of all those remaining in receipt of pension will have declined. This example highlights the general point that measures to increase targeting of benefits through tightening eligibility conditions often show up the figures as reducing the average **total** incomes of the remaining pensioners.¹

1 The corollary to this is, of course, that the average **pension** incomes of those who continue to receive a pension will increase in real terms as a consequence of targeting (because those with lowest pension entitlements are removed), even if the maximum rate of pension itself is only indexed to price movements.

Table 3: Mean Disposable Income Levels by Household Type (National currencies, in \$1991)^(a)

Household Type	Australia				New Zealand			Overall percentage change
	1981-82	1985-86	1989-90	Overall percentage change	1981-82	1985-86	1989-90	
One age pensioner adult ^(b)	9990	8720	8680	-13.1	13150	12000	11660	-11.3
One other adult	18500	19090	19060	+3.0	21920	18430	21800	-0.6
Two age pensioner adults ^(b)	17270	15010	15400	-10.8	27020	23050	25380	-6.0
Two other adults	32520	32110	32510	0.0	39970	33870	40090	+0.3
Two adults, 1 child	32780	34570	33680	+2.7	31890	30070	35220	+10.5
Two adults, 2 children	34050	34560	34510	+1.4	36050	31890	37000	+2.6
Two adults, 3 + children	34050	33350	33680	-1.1	34970	32640	39620	+13.3
Three or more adults	50190	46960	48960	-2.5	52500	49490	55880	+6.4
Three or more adults and child/ren	43590	40180	41990	-3.7	53170	47220	53510	+0.6
One adult and child/ren	15300	13770	14630	-4.4	18400	16720	19440	+5.7
All households	30960	30040	30740	-0.7	34040	31170	33280	- 2.2

Notes: a) All figures have been rounded to the nearest \$10.

b) National superannuant households in New Zealand. In both countries, pensioner or superannuant households were identified as households whose members had any pension or national superannuation income.

In relation to the other household types shown in Table 3, childless couples broadly maintained their mean real incomes, while couples with children in New Zealand experienced substantial increases in their incomes, as did couples with fewer than three children in Australia. Sole parents became worse off in real terms on average in Australia, but considerably better off on average in New Zealand. In terms of **changes** in income levels, households with children fared better in New Zealand than in Australia, both in absolute terms and relative to the incomes of households without children. Finally, sole parent families experienced increased real incomes on average in New Zealand, but declining real incomes in Australia. The extent to which these differences reflect the impact of income support policies and/or changes in access to paid employment and other non-benefit incomes amongst sole parents (e.g. child support payments from the non-custodial parent) is an important issue deserving further attention.

3.2 Living Standards

The mean incomes in Table 3 cannot be directly compared across household types because of variations in the needs of the different household types. In order to adjust for these differences, the 'revised Jensen equivalence scale' (RJES) has been used (Jensen, 1988). This scale varies with household size and composition and with the age of children, although this latter adjustment could not be applied in New Zealand prior to 1987-88. Because of this, it has not been applied in Australia either in this period. For 1989-90, adjustment for the age of children has been undertaken in both countries, the Australian estimates first requiring random assignment of children's ages in specific ranges, as explained earlier.

Table 4 replicates Table 3 but uses the RJES to estimate equivalent disposable income. To the extent that the RJES reflects actual differences in need (which may be a more accurate assumption for New Zealand than for Australia) the estimates in Table 4 track changes in living standards more closely than those in Table 3. The estimates for different household types in Table 4 can also be more usefully compared than those shown in Table 3.

As expected, use of the equivalence scale substantially reduces the income relativities between household types in both countries. In 1989-90, for

Table 4: Mean Equivalent Disposable Income Levels by Household Type (National currencies, in \$1991)^(a)

Household Type	Australia			New Zealand		
	1981-82	1985-86	1989-90	1981-82	1985-86	1989-90
One age pensioner adult ^(b)	15360	13410	13360	20240	18470	17940
One other adult	28480	29370	29330	33720	28350	33540
Two age pensioner adults ^(b)	17270	15010	15400	27020	23050	25390
Two other adults	32550	32150	32520	39980	33930	40110
Two adults, 1 child	27040	28520	28460	26280	24580	29400
Two adults, 2 children	24230	24580	25210	25690	22520	26600
Two adults, 3 + children	20960	20540	21400	21180	19830	24450
Three or more adults	36050	33910	34870	38700	36270	40130
Three or more adults and child/ren	26580	25050	25510	31970	28020	31440
One adult and child/ren	14590	12910	14320	17400	15750	18020
All households	26930	26710	27450	29120	26650	29470

Note : a) See Notes to Table 3.

example, the ratio of the highest to the lowest mean household disposable income declined from 5.6 to one (actual income) to 2.6 to one (equivalent income) in Australia; the corresponding decline in New Zealand is from 4.8 to one to 2.2 to one. On the basis of these comparisons, inequality between household types is lower in New Zealand than it is in Australia, at least in 1989-90. The results for that year also suggest that the New Zealand welfare state performed a more effective income replacement function than its Australian counterpart. This can be seen by comparing the average incomes of single non-pensioner and pensioner households in each country, and by comparing the incomes of couples with children with those of sole parent households.

The estimates shown in Table 4 can also be used to express the mean equivalent incomes of each household type in each country relative to the overall mean for all households in that country. When this is done for 1989-90, the relative mean incomes which result illustrate how much **relatively** better off superannuants are in New Zealand compared with age pensioners in Australia.² In contrast, Australian couples with one or two children are relatively better off than their New Zealand counterparts, although only marginally. By the end of the decade all households without children were relatively better off in New Zealand, as were sole parent households.

These comparisons, it should be noted, apply to 1989-90, the year before many New Zealand households, including mainly non-aged single people and childless couples, couples with three or more children, three or more adults living with children and sole parent households, all experienced substantial declines in their real equivalent disposable incomes associated with the cuts in welfare benefits and the onset of recession (Mowbray, 1993, Table 12). More recent comparisons with Australian data will be required before it is possible to evaluate the extent to which the benefit cuts in particular removed the more effective income replacement achievements in New Zealand referred to earlier.

2 The earlier comments (see footnote 1) are of relevance here and their impact needs to be kept in mind.

3.3 Income Distribution

As has already been observed, the estimates in Tables 3 and 4 suggest that there have been substantial changes in income distribution in both countries over the 1980s. This section explores the magnitude of these changes in more detail. As before, the level of analysis that could be undertaken was limited by what was published in Mowbray (1993).

Table 5 summarises available information on one distributional indicator, the percentile income levels (P_i) in the distribution of disposable incomes.³ For comparability, these percentiles have been expressed relative to median income (P_{50}) for each country, thereby avoiding the need to adjust for inflation or currency differences. Although only an imprecise measure of inequality, the percentile ratios in Table 5 indicate a clear trend to increasing inequality in Australia up to the mid-1980s. Thereafter, the picture is a little more mixed, although inequality at the upper end of the distribution continued to increase, if anything more rapidly than before.

In New Zealand, the pattern of change throughout the decade is less clear, although a strong trend to increasing inequality at the top of the distribution is apparent after 1985-86, and the extent of the change between then and 1989-90 is more substantial than that which occurred in Australia between 1981-82 and 1989-90. Indeed, the degree of change in inequality at the top of the distribution in New Zealand after 1985-86 is nothing short of remarkable. Overall, the indicators suggest that inequality was lower in New Zealand than Australia in 1981-82 and 1985-86. However, by 1989-90, New Zealand appears to have less inequality at the bottom of the distribution, but a good deal more at the top.

Table 6 contains the only information on market incomes presented in the New Zealand report, market income being defined as gross income minus income from cash benefits. The table shows the ratio of mean to median income which, as has already been noted, provides a measure of inequality,

3 The percentile income levels define the boundaries of the various deciles into which the distribution is separated. Thus, the percentile P_{10} expresses the income level below which 10 per cent of the population fall, P_{20} that income below which 20 per cent of the population fall, and so on. The percentile P_{50} corresponds to the median income level.

Table 5: Disposable Incomes at Selected Percentiles of the Distribution (Relative to the median)

Percentile (P_i)	Australia			New Zealand		
	1981-82	1985-86	1989-90	1981-82	1985-86	1989-90
P_{10}	0.31	0.30	0.31	0.40	0.39	0.40
P_{25}	0.57	0.55	0.56	0.63	0.66	0.65
P_{50}	1.00	1.00	1.00	1.00	1.00	1.00
P_{75}	1.45	1.48	1.53	1.44	1.40	1.54
P_{90}	1.95	2.00	2.07	1.88	1.85	2.21

Table 6: Ratio of Mean to Median Market and Disposable Incomes

Ratio	Australia			New Zealand		
	1981-82	1985-86	1989-90	1981-82	1985-86	1989-90
Market Income	1.09	1.11	1.15	na	1.10	1.29
Disposable income	1.09	1.10	1.13	1.10	1.11	1.23

Note: na = not available

albeit a crude one. These estimates show a trend to increasing inequality in both countries, particularly after 1985-86, and that this trend is stronger for market income than for disposable income. These estimates are thus consistent with a situation of a 'rising tide' of inequality of market incomes which has been moderated somewhat, but by no means offset entirely, through the operation of the government benefit and income tax systems. Unfortunately, the lack of New Zealand results for gross income, as conventionally defined, precludes any attempt to assess separately the changing distributive impacts of benefits and taxes.

The Mowbray study provides no information on income shares - the most common measure of income distribution - although Table 13 of that study, which shows mean equivalent disposable incomes by deciles of equivalent disposable income, can readily be converted into decile shares. This is because the ratio of the mean income within each decile to overall mean income is equal to ten times the percentage share of total income accruing to that decile.⁴ This simple formula has been used to derive the equivalent disposable income decile shares for New Zealand, which are compared with those for Australia in Table 7.⁵ As before, equivalent income has been derived using the RJES, with variation according to the specific age of children taken into account in 1989-90 but not in earlier years.

Taken at face value, these results show that inequality increased in Australia throughout the decade, particularly at the top of the distribution. The pattern of change and the increase in the size of the Gini coefficient (estimated using an approximate formula based on the grouped data presented in Table 7) are similar to those reported in the recent study by Saunders (1993). In New Zealand, the pattern of distributional change is again more complex. Inequality declined slightly up to 1985-86 and increased considerably between then and 1989-90, with the change in inequality over the period as a whole being ambiguous.⁶

4 If y_1 is the mean income of the first decile and Y overall mean income, then total income received by those in the first decile equals $y_1 \cdot N/10$, where N is population size, and total overall income equals $Y \cdot N$. The income share of the first decile is then equal to $(y_1 \cdot N / 10) / (Y \cdot N) = y_1 / 10 \cdot Y$.

5 The overall mean equivalent disposable incomes are shown in Table 11 of Mowbray (1993). However, these do not correspond to those calculated directly from the decile mean incomes shown in Table 13, presumably because of a combination of rounding errors and missing observations which caused some differences in the actual samples used to construct these two tables. If the former are used, the decile shares do not sum to 100 per cent and for this reason the latter values for overall mean income were used to derive the estimates shown in Table 7.

6 The Lorenz curves for the distributions of income in New Zealand in 1981-82 and 1989-90 shown in Table 7 intersect in the third decile. When the Lorenz curves of two distributions intersect, it is not possible to rank them unambiguously in terms of which has the greatest degree of inequality on the basis of their Gini coefficient alone (Jenkins, 1991).

Table 7: The Distributions of Equivalent Disposable Income (Percentage shares of total income)

Decile	Australia			New Zealand		
	1981-82	1985-86	1989-90	1981-82	1985-86	1989-90
First (lowest)	3.19	2.49	2.05	3.48	3.84	3.84
Second	4.71	4.60	4.59	5.39	5.63	5.18
Third	5.76	5.49	5.57	6.20	6.43	5.88
Fourth	7.07	6.81	6.74	7.21	7.35	6.69
Fifth	8.36	8.22	8.09	8.36	8.49	7.65
Sixth	9.73	9.72	9.56	9.68	9.63	8.95
Seventh	11.30	11.37	11.26	11.17	10.91	10.42
Eighth	13.12	13.34	13.16	13.03	12.53	12.28
Ninth	15.54	15.79	15.70	15.24	14.98	15.20
Tenth (highest)	21.22	22.17	23.28	20.24	20.22	23.90
Gini coefficient ^(a)	0.289	0.309	0.322	0.267	0.255	0.295

Note: a) The Gini coefficient has been calculated from the grouped data and is only an approximation.

It is interesting to see what light the results in Table 7 shed on the phenomena of the 'disappearing middle' thesis, the idea that distributional change has benefited those on both low and high incomes at the expense of those in the middle of the distribution. This view has featured heavily in populist accounts of the change in inequality in both countries and appears to have been well received in both populations. However, Table 7 provides little evidence of a disappearing middle, particularly in Australia. If, for example, we define the middle to include those 40 per cent of households who fall within deciles four to seven of the distribution, the middle's share of equivalent disposable income in Australia fell only very slightly, from 36.46 per cent in 1981-82 to 36.12 per cent in 1985-86, and then declined slightly again to 35.65 per cent in 1989-90.

In New Zealand, the share of the middle four deciles was virtually unchanged between 1981-82 and 1985-86, but then fell sharply from 36.38 per cent to 33.71 per cent between 1985-86 and 1989-90.

In combination with the earlier results, these changes illustrate that the pattern of distributional change in New Zealand since the mid-1980s has been from the middle to the top of the distribution, whereas in Australia it has been more from the bottom to the top. In neither country, however, can the extent of the decline in the share of income received by those in the middle of the distribution be regarded as of major significance. To the extent that there is discontentment among the middle classes, it seems that this more likely reflects their lower absolute incomes (Table 2) than any adverse relative (distributional) changes.

The patterns of distributional change in both countries implied by Table 7 in the period to 1985-86 are broadly similar to those revealed in the study undertaken by Saunders, Stott and Hobbes (1991), despite the differences between the two studies in terms of the unit of analysis, weighting procedure and equivalence scale. The main differences arise at the bottom of the distribution, the estimates in Table 7 revealing a larger decline in the share of the lowest quintile in Australia, and an increased (not decreased) share of the lowest quintile in New Zealand.⁷

The overall distributional change between 1981-82 and 1985-86 in Australia indicated in Table 7 is similar in size and pattern to that revealed in the earlier study. In New Zealand, in contrast, Table 7 indicates a decline in inequality over the five years to 1985-86 whereas the earlier study indicated an increase. This difference is largely explained by the different changes in the share of the lowest quintile, the earlier study showing a decline from 8.2 per cent to 7.6 per cent, while Table 7 indicates an increase from 8.9 per cent to 9.5 per cent. The reasons for these differences seem sufficiently large to warrant further investigation of the data and methodologies in order to help identify which factors give rise to them.

The comparisons of income distribution based on Table 7 reveal that inequality in Australia exceeded inequality in New Zealand in both 1981-82

7 This may reflect the treatment of negative incomes in the form of business losses - see below.

and 1985-86. However, by 1989-90 no such unambiguous ranking of inequality in the two countries is possible. Thus, even despite the fact that inequality increased after 1985-86 in Australia, the size of the increase in New Zealand was such as to undermine its previous claim to have a more equal income distribution. What is most interesting about the comparisons for 1989-90 is that the far greater income share of the lowest decile in New Zealand is not sufficient to ensure more equality in the distribution as a whole (despite a Gini coefficient which was about the same as that prevailing in Australia before inequality there began to rise from 1981-82).

This raises the question of the treatment of low incomes in this analysis, an issue explored with reference to Table 8. Columns one and three of Table 8 show the increases in real mean incomes experienced across the equivalent income deciles in each country. For Australia, these estimates conform to the view that 'the rich have got richer and the poor have got poorer', with the decline in the mean real income in the first decile being very substantial.

There is, however, a possible explanation for this extreme finding. It relates to the fact that business losses were re-coded to zero in the Australian data for 1981-82 but not for later years. This implies that mean incomes, particularly at the bottom of the distribution (where many of the self-employed are located because of their low recorded incomes) are artificially inflated in 1981-82, which in turn implies that the change in real incomes from that period are biased downwards. In order to assess the qualitative significance of this effect, business losses were artificially set equal to zero in 1985-86 and 1989-90, providing the basis for the estimates in column two of Table 8 and for a recalculation of Table 7.

These revised estimates indicated that the share of equivalent disposable income of the lowest decile in these two latter years was 3.10 per cent and 3.00 per cent, respectively, well above the estimated shares shown in Table 7. The difference made in relation to the mean decile income changes shown in the first column of Table 8 are shown in the second column. The decline in the real mean income of the lowest decile between 1981-82 and 1989-90 is now equal to 2.3 per cent, not 34.5 per cent as shown in the first column of Table 8. It is worth noting, however, that even with business losses suppressed to zero in 1985-86 and 1989-90, the picture of steadily increasing inequality in the Australian income distribution is unaffected:

Table 8: Increases in Real Equivalent Disposable Incomes by Decile, 1981-82 to 1989-90 (Percentages)

Decile	Australia ^(a)		New Zealand (3)
	(1)	(2)	
First	-34.4	-2.3	+9.5
Second	-0.8	+0.6	-4.7
Third	-1.3	0.0	-5.9
Fourth	-2.8	-1.8	-7.9
Fifth	-1.3	-0.4	-9.3
Sixth	+0.1	+1.0	-8.3
Seventh	+1.6	+2.2	-7.6
Eighth	+2.2	+2.6	-6.5
Ninth	+3.0	+3.2	-1.1
Tenth	+11.8	+12.3	+17.1

Note: a) The first column is based on the actual incomes of the self-employed as recorded on the Australian data tapes. The second column was derived by re-coding negative self-employment incomes to zero in 1989-90, as was done (prior to release of the data tape) in 1981-82.

the Lorenz curves for 1981-82, 1985-86 and 1989-90 still lie successively further from the line of complete equality. It seems safe to assume, therefore, that the Australian results presented here are sensitive to the varying treatment of self-employment business losses in the three data sets, which has contributed a good deal to the estimated increase in inequality.

For New Zealand, Table 8 reveals a movement in real income levels in the distribution away from the middle towards both extremes - the version of the 'disappearing middle' thesis mentioned earlier. At least up until 1989-90, it appears therefore that both the rich **and** the poor got richer, whilst everyone else got poorer in New Zealand. However, as noted earlier, this pattern did not continue into 1990-91 particularly for those in the lowest decile who, according to Mowbray (1993), experienced a decline in real

equivalent disposable income of almost 40 per cent in a single year. Because of this, any conclusions drawn from the analysis up to 1989-90 which is presented here, cannot be assumed to hold in the period beyond 1990, when the benefit cuts experienced in New Zealand were not replicated in Australia.

4 Conclusions

This paper represents a modest addition to the rapidly growing body of research on income distribution in Australia and New Zealand. Its main objective has been to present estimates of mean incomes, living standards and income inequality using the same data and concepts in each country. This has been achieved by using unit record data for Australia to replicate the income distribution estimates recently produced within the Social Policy Agency in New Zealand. It is useful to place these results in the broader context of what is happening to income distribution in other countries, as this serves to identify common forces to which domestic tax-transfer policies in all countries have had to respond.

The results cover the period between 1981-82 and 1989-90, and thus pre-date the onset of recession and the significant reductions in benefit levels which took place in New Zealand in 1990. For this reason, any conclusions based on the results presented here cannot be extrapolated beyond the period to which they apply. What the results reveal is a benefit system in New Zealand which, prior to 1990, appears to have been more effective in achieving income replacement for groups at risk than was the case in Australia. There is a good deal of evidence in the paper which indicates that incomes were becoming more unequal in both countries throughout the 1980s, particularly after 1985-86 in the case of New Zealand. There is also some evidence, of a more circumstantial nature, which suggests that the increase in inequality was emerging in the market sector, rather than reflecting less effective redistributive tax and transfer mechanisms. It is, however, difficult to assert this with any confidence because data limitations prevent a more systematic analysis.

In general terms, the trend in inequality between 1981-82 and 1989-90 is clearer in Australia than New Zealand, where the patterns of distributional change up to 1989-90 are more complex and ambiguous in terms of overall

direction. It is clear, however, that those on the highest incomes (in the top decile) in both countries experienced rapidly rising real incomes over the decade, particularly after 1985-86, which allowed them to pull even further away from those below them in the distributional ranking. To some extent, this is a natural consequence of the market-oriented policies pursued in both countries over the period.

Some may see these changes as not only inevitable, but also desirable. There is nothing in the results and analysis presented here to either confirm or contradict such a claim. The aim of the current exercise has been to describe how the distributions of income has changed in Australia and New Zealand over the 1980s, not to attribute those changes in any formal way to the policies and other factors which underlie them. Having said this, however, the rising tide of inequality identified in this paper poses fundamental questions about the acceptability and, ultimately, the sustainability of the kinds of policies which were pursued on both sides of the Tasman during the 1980s.

References

- Atkinson, A. B. (1993), *What is Happening to the Distribution of Income in the UK?*, Discussion Paper WSP/87, Welfare State Program, STICERD, London School of Economics.
- Atkinson, A. B. and J. Micklewright (1992), *Economic Transformation in Eastern Europe and the Distribution of Income*, Cambridge University Press, Cambridge.
- Atkinson, A. B., L. Rainwater and T. M. Smeeding (1994), *Income Distribution in OECD Countries: The Evidence from the Luxembourg Income Study (LIS)*, OECD, Paris, forthcoming.
- Gardiner, K. (1993), *A Survey of Income Inequality Over the Last Twenty Years - How Does the UK Compare?*, Discussion Paper WSP/100, Welfare State Programme, STICERD, London School of Economics.
- Gottschalk, P. (1993), 'Changes in inequality of family income in seven industrialized countries', *American Economic Review. Papers and Proceedings*, 83, 136-42.
- Gottschalk, P., and M. Joyce (1991), *Changes in Earnings Inequality - an International Perspective*, Working Paper No. 66, Luxembourg Income Study, Luxembourg.

- Gottschalk, P. and M. Joyce (1992), *The Impact of Technological Change, Deindustrialization and Internationalization of Trade on Earnings Inequality - An International Perspective*, Working Paper No. 85, Luxembourg Income Study, Luxembourg.
- Jäntti, M. (1993), *Changing Inequality in Five Countries: the Role of Markets, Transfers and Taxes*, Working Paper No. 91, Luxembourg Income Study, Luxembourg.
- Jenkins, S. P. (1991), 'The measurement of income inequality', in L. Osberg, ed., *Economic Inequality and Poverty. International Perspectives*, M. E. Sharp, New York, 3-38.
- Jensen, J. (1988), *Income Equivalences and the Estimation of Family Expenditures on Children*, Department of Social Welfare, Wellington.
- Mowbray, M. (1993), *Incomes Monitoring Report 1981-1991*, Social Policy Agency, Wellington.
- Saunders, P. (1992), 'Income distribution in Australia and New Zealand: comparisons based on the Luxembourg Income Study', in D. J. Slottje and T. M. Smeeding, eds, *Research on Economic Inequality. Volume 3. International Comparisons of Economic Inequality*, JAI Press, Greenwich, 153-76.
- Saunders, P. (1993), 'Longer run changes in the distribution of income in Australia' *Economic Record*, 69, December, 353-66.
- Saunders, P. (1994), *Welfare and Inequality. National and International Perspectives on the Australian Welfare State*, Cambridge University Press, Melbourne.
- Saunders, P., G. Hobbes and H. Stott (1989), 'Income inequality and redistribution in Australia and New Zealand: an international comparative analysis' in P. Saunders and A. Jamrozik, eds, *Social Policy and Inequality in Australia and New Zealand*, Social Welfare Research Centre, Reports and Proceedings No. 78, University of New South Wales, Sydney.
- Saunders, P., H. Stott and G. Hobbes (1991), 'Income inequality in Australia and New Zealand: international comparisons and recent trends', *Review of Income and Wealth*, 37, March, 63-79.

SOCIAL POLICY RESEARCH CENTRE DISCUSSION PAPERS:

◆ No longer available.

◇ Published in Journal (list follows)

- | | | | |
|-------|--|--|----------------|
| 1.◆◇ | The Labour Market Position of Aboriginal People in Non-Metropolitan New South Wales | Russell Ross | August 1988 |
| 2.◆ | Welfare Fraud, Work Incentives and Income Support for the Unemployed | Bruce Bradbury | August 1988 |
| 3.◆◇ | Taxation and Social Security: An Overview | Peter Whiteford | August 1988 |
| 4.◆◇ | Income Inequality in Australia in an International Comparative Perspective | Peter Saunders & Garry Hobbes | August 1988 |
| 5.◆◇ | Family Size Equivalence Scales and Survey Evaluations of Income and Well-Being | Bruce Bradbury | December 1988 |
| 6.◆◇ | Income Testing the Tax Threshold | Peter Whiteford | December 1988 |
| 7.◆ | Workers' Compensation and Social Security Expenditure in Australia: Anti-Social Aspects of the 'Social' Wage | Don Stewart & Jennifer Doyle | December 1988 |
| 8.◆ | Teenagers in the Labour Market: 1983-1988 | Russell Ross | December 1988 |
| 9.◆ | A Legacy of Choice: Economic Thought and Social Policy in Australia, the Early Post-War Years | Paul Smyth | May 1989 |
| 10.◆◇ | The 'Family Package' and the Cost of Children | Bruce Bradbury | May 1989 |
| 11.◆ | Towards an Understanding of Commonwealth Social Expenditure Trends | Peter Saunders | May 1989 |
| 12.◆◇ | A Comparative Study of Home and Hospital Births: Scientific and Normative Variables and their Effects | Cathy Boland | July 1989 |
| 13.◆ | Adult Goods and the Cost of Children in Australia | Bruce Bradbury | July 1989 |
| 14.◆◇ | Some Australian Evidence on the Consensual Approach to Poverty Measurement | Peter Saunders & Bruce Bradbury | July 1989 |
| 15.◆◇ | Income Inequality in Australia and New Zealand: International Comparisons and Recent Trends | Peter Saunders, Garry Hobbes & Helen Stott | September 1989 |
| 16.◆ | Trends in the Disposable Incomes of Australian Families, 1982-83 to 1989-90 | Bruce Bradbury, Jennifer Doyle & Peter Whiteford | January 1990 |
| 17.◆◇ | Selectivity and Targeting in Income Support: The Australian Experience | Peter Saunders | February 1990 |

18. ♦♦ How Reliable are Estimates of Poverty in Australia? Some Sensitivity Tests for the Period 1981-82 to 1985-86 Bruce Bradbury & Peter Saunders February 1990
19. The Labour Supply Behaviour of Single Mothers and Married Mothers in Australia Russell Ross & Peter Saunders July 1990
20. ♦♦ Income Poverty Among Aboriginal Families with Children: Estimates from the 1986 Census Russell Ross & Peter Whiteford July 1990
21. ♦ Compensating Low Income Groups for Indirect Tax Reforms Peter Saunders & Peter Whiteford August 1990
22. ♦♦ Reflections on the Review of the Home and Community Care Program Peter Saunders August 1990
23. ♦♦ Sole Parent Families in Australia Peter Saunders & George Matheson September 1990
24. ♦♦ Unemployment, Participation and Family Incomes in the 1980s Bruce Bradbury September 1990
25. ♦♦ Employment Growth and Poverty: An Analysis of Australian Experience, 1983-1990 Peter Saunders September 1990
26. Gender, Social Policy Regimes and the Welfare State Sheila Shaver November 1990
27. A Probit Analysis of the Factors Influencing Labour Market Success of Aborigines in New South Wales Russell Ross November 1990
28. ♦♦ Efficiency and Effectiveness in Social Policies: An International Perspective Peter Saunders December 1990
29. Take-up of Family Income Supplement in 1986 - A Research Note Peter Whiteford & Jennifer Doyle February 1991
30. ♦ An Ever-Rising Tide? Poverty in Australia in the Eighties: Peter Saunders & George Matheson May 1991
31. ♦ Are Immigrants Over-Represented in the Australian Social Security System? Peter Whiteford March 1992
32. Measuring the Cost of Children Bruce Bradbury May 1992
33. The Impact of Family Assistance Changes on Patterns of Unemployment Benefit Receipt Bruce Bradbury August 1992
34. ♦ Recent Trends in the Size and Growth of Government in OECD Countries Peter Saunders September 1992
35. Noncash Income, Living Standards, Inequality and Poverty: Evidence from the Luxembourg Income Study Peter Saunders et al. November 1992
36. ♦♦ The Mixed Economy of Support for the Aged In Australia: Lesson for Privatisation Peter Saunders & Michael Fine November 1992

37.	The Welfare Interpretation of Family Size Equivalence Scales	Bruce Bradbury	November 1992
38. ♦	Body Rights, Social Rights and the Liberal Welfare State	Sheila Shaver	December 1992
39.	Unemployment and Income Support: Challenges for the Years Ahead	Bruce Bradbury	May 1993
40.	Married Women's Earnings and Family Income Inequality in the Eighties	Peter Saunders	May 1993
41	Women and the Australian Social Security System: From Difference Towards Equality	Sheila Shaver	June 1993
42.	Male Wage Inequality Before and After Tax: A Six Country Comparison	Bruce Bradbury	June 1993
43.	The Fragmented Structure of Community Support Services: A Community Case Study	Michael Fine	June 1993
44. ♦	The Recognition of Wifely Labour by Welfare States	Sheila Shaver & Jonathan Bradshaw	August 1993
45.	Postmodernism and Social Policy: A Great Leap Backwards?	Peter Taylor-Gooby	September 1993
46.	Making Ends Meet in Australia and Sweden: A Comparative Analysis of the Consensual Approach to Poverty Measurement	Peter Saunders, Björn Halleröd & George Matheson	October 1993
47.	Economic Adjustment and Distributional Change: Income Inequality and Poverty in Australia in the Eighties	Peter Saunders	November 1993
48.	Poverty and Inequality: Social Security in Australia in the 1990s	Peter Saunders	May 1994
49	Rising on the Tasman Tide: Income Inequality in Australia and New Zealand in the 1980s	Peter Saunders	June 1994

The following Discussion Papers have been published in journals. Where indicated, Reprints of the articles are available from the SPRC at the cost of \$2.00 each. To order reprints, quote the Reprint number and attach a cheque or money order made out to the Social Policy Research Centre. Send orders to:

The Publications Officer
Social Policy Research Centre
University of New South Wales
Sydney NSW 2052
Australia

DP No.	Published as	SPRC Reprint No. (if applicable)
1.	Russell Ross (1988), 'The labour market position of Aboriginal people in non-metropolitan New South Wales', <i>Australian Bulletin of Labour</i> , 15(1), December, 29-56.	48
3.	Peter Whiteford (1989), 'Taxation and social security: an overview', <i>Australian Tax Forum</i> , 6(1), 2-39.	49
4.	Peter Saunders and Garry Hobbes (1988), 'Income inequality in an international comparative perspective', <i>Australian Economic Review</i> , 3rd Quarter, 25-34.	47
5.	Bruce Bradbury (1989), 'Family size equivalence scales and survey evaluations of income and well-being', <i>Journal of Social Policy</i> , 18(3), July, 383-408.	52
6.	Peter Whiteford (1989), 'Taxation reform and the tax threshold', in John G. Head, ed., <i>Australian Tax Reform in Retrospect and Prospect</i> , papers presented at a conference organised by the Centre of Policy Studies, Monash University, Conferences Series no. 8, Australian Tax Research Foundation, Sydney, 219-47.	
10.	Bruce Bradbury (1989), 'The "family package" and the cost of children', <i>Australian Social Policy</i> , 1(12), Winter, 21-51.	59
12.	Cathy Boland (1989), 'A comparative study of home and hospital births: scientific and normative variables and their effects', in <i>Celebrating a Revolution in Birth: Proceedings of 10th National Homebirth Conference</i> , Sydney, 19-33.	
14.	Peter Saunders and Bruce Bradbury (1991), 'Some Australian evidence on the consensual approach to poverty measurement', <i>Economic Analysis and Policy</i> , 21(1), March, 47-73.	62
15.	Peter Saunders, Helen Stott and Garry Hobbes (1991), 'Income inequality in Australian and New Zealand: international comparisons and recent trends', <i>Review of Income and Wealth</i> , 37(1), March, 63-79.	47
17.	Peter Saunders (1991), 'Selectivity and targeting in income support: the Australian experience', <i>Journal of Social Policy</i> , 20(3), 299-326.	
18.	Bruce Bradbury and Peter Saunders (1990), 'How reliable are estimates of poverty in Australia? Some sensitivity tests for the period 1981-82 to 1985-86', <i>Australian Economic Papers</i> , 29(55), December 154-81.	60
20.	Russell Ross and Peter Whiteford (1992), 'Poverty in 1986: Aboriginal families with children', <i>Australian Journal of Social Issues</i> , 27(2), May, 92-111.	61
21.	Peter Saunders and Peter Whiteford (1990), 'Compensating low income groups for indirect taxes', <i>Australian Tax Forum</i> , 7(4), 443-64.	

DP No.	Published as	SPRC Reprint No. (if applicable)
22.	Peter Saunders (1990), 'Reflections on the review of the HACC program', in A. Howe, E. Ozanne and C. Selby Smith, eds, <i>Community Care Policy and Practice: New Directions in Australia</i> , Public Sector Management Institute, Monash University, Victoria, 201-12.	63
23.	Peter Saunders and George Matheson (1991), 'Sole parent families in Australia', <i>International Social Security Review</i> , 44(3), 51-75.	
24.	Bruce Bradbury (1992), 'Unemployment, participation and family incomes in the 1980s', <i>Economic Record</i> , 68(203), December, 328-42.	
25.	Peter Saunders (1991), 'Employment growth and poverty: an analysis of the Australian experience 1982-1990', in Michael Johnson, Peter Kriesler and Anthony D. Owen, eds, <i>Contemporary Issues in Australian Economics</i> , The Economic Society of Australia, Macmillan, Australia, 105-33. (Also excerpts in <i>ACTCOSS News</i> , 5, October, 12-14.)	
28.	Peter Saunders (1991), 'Efficiency and effectiveness in social policies: an international perspective', in T. P. Hardiman and Michael Mulreany, eds, <i>Efficiency and Effectiveness in the Public Domain</i> , Institute of Public Administration, Dublin, 78-117.	
30.	Peter Saunders and George Matheson (1991), 'An ever rising tide?: Poverty in Australia in the eighties', <i>Economic and Labour Relations Review</i> , 2(2), December, 142-71.	67
31.	Peter Whiteford (1991), 'Are immigrants over-represented in the Australian social security system?', <i>Journal of the Australian Population Association</i> , 8(2), November, 93-109.	
34.	Peter Saunders (1993), 'Recent trends in the size and growth of government in OECD countries', in Normal Gemmell, ed., <i>The Growth of the Public Sector: Theories and International Evidence</i> , Edward Elgar, Aldershot, 17-33.	
36.	Peter Saunders and Michael Fine (1992), 'The mixed economy of support for the aged in Australia: lessons for privatisation', <i>Economic and Labour Relations Review</i> , 3(2), December, 18-42.	69
38.	Sheila Shaver (1993), 'Body rights, social rights and the liberal welfare state', <i>Critical Social Policy</i> , Issue 39, Winter 1993/94, 66-93.	