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Volume 2: Contributed Papers

Edited by
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Foreword

This report contains twelve contributed papers presented to the Second National Social Policy Conference held at the University of New South Wales on 3-5 July 1991. The theme of the Conference, *Social Policy in Australia: Options for the 1990s* forms the title of the report. The Social Policy Research Centre has already published a volume containing the Plenary Session papers in the *SPRC Reports and Proceedings* series and has edited a Special Issue of *The Australian Quarterly* (No.3, 1991) containing a further selection of contributed papers. Other selected papers will appear in a companion report to be published shortly by the Centre.

A major aim of the Social Policy Conference was to bring together a range of individuals, researchers and practitioners working throughout Australia and New Zealand on contemporary social policy issues, and to provide a national forum for the exchange of ideas, information, analysis and results. The Conference is seen by the Centre as important in the process of raising the profile of debate on social policy research and analysis, rather than as a platform for the expression of definitive conclusions or particular points of view. If social policy in Australia is to be taken as seriously as economic policy issues, there is not only a need for more research, but also for more critical debate and assessment of the issues raised by that research.

This volume is concerned with a range of issues relating to the social security system, including income distribution, and with changes in this distribution and in the need for, and ways of, providing income support, brought about by changes in demography and in government policy. Some deal with the needs of specific groups in the population, such as the aged (John Creedy and Margaret Morgan), carers (Cheryl Tilse, Linda Rosenman and Robyn Le Brocque), the unemployed (David Kalisch), Aboriginal people (J. C. Altman; Habtemariam Tesfaghiorghis). Two deal with the effects of market changes (Simon Marginson; Michael Howard). Others examine lifetime inequality (Ann Harding) and the effects of discrimination (Flora Gill). Two papers describe the factors affecting social security and its implications in New Zealand (Judith Davey and Des O'Dea; Mike O'Brien). One deals specifically with analytical and methodological concerns (M. A. Meagher).

The papers included in this report address issues at the heart of the contemporary social policy debate, including the relationships between the Welfare State and the labour market, between economic and social policy, and between the balance of forces impinging on the future of social policy. From this perspective, the papers have much to contribute to the discussion and analysis of social policy options for Australia over the next decade and beyond.

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Contents

Contents (Continued)

Appropriate Income Support for Aboriginal Australians: Options for the 1990s

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1 Introduction

The Hawke Government's *Towards a Fairer Australia: Social Justice Strategy Statement 1990-91* has as its central objective the development of a fairer, more prosperous and more just society for every Australian. The strategy is directed at expanding choices and opportunities for people so that they are able to participate as citizens in economic, social and political life and are better able to determine the direction of their own lives (Hawke and Howe, 1990: 1). The aim here is to examine how closely income support options for Aboriginal Australians correlate with this social justice goal.

A major Aboriginal affairs initiative, the Aboriginal Employment Development Policy (AEDP) officially launched in 1987, also has major social justice objectives. These are incorporated in three major economic policy goals: to ensure employment and income equity between Aboriginal and other Australians by the year 2000 and to concurrently reduce welfare dependency for Aboriginal Australians to levels commensurate with those for other Australians (Australian Government, 1987). As noted elsewhere, the AEDP statement is extremely ambiguous in its definition of equity, which is generally assumed to mean 'statistical equality' as measured by census-based social indicators (Altman and Sanders, 1991a). To date, the major focus of the AEDP and commentaries about the policy have focused on employment issues; there has been little analysis of how income equality or reduced welfare dependence might be achieved. Prior to the official launch of the AEDP in 1987 it was already being suggested that, given the inequitable distribution of economic opportunities across the Australian continent and the circumscribed options for many Aboriginal people residing in rural and remote locations, a strict policy aim of income equality would require marked income differentials within the Aboriginal population (Altman, 1987). This observation has recently been reiterated in the *Royal Commission into Aboriginal Deaths in Custody, National Report* (Commonwealth of Australia, 1991: 366-7).

The focus here is specifically on income support and an attempt is made, for analytical purposes, to isolate income issues from employment issues. Nevertheless

it is probably worthy of note that even when Aboriginal people are employed they generally occupy lower occupational niches than other Australians, and consequently have a lower income status. Using 1986 Census data and an earnings regression, Jones (1991) found that employed Aboriginal people consistently earned less than other Australians. In short, even full employment for Aborigines may fail to achieve income equality.

Two major forms of income support are identified: the range of social security benefits that apply to all Australians and the Community Development Employment Projects (CDEP) scheme.[1] The identification of the CDEP scheme as an income support scheme is made with full acknowledgement that the relative balance between income support and employment development objectives of this scheme has swung markedly towards the latter since its incorporation as a major element of the AEDP in 1987 (Altman and Sanders, 1991b).

In examining policy options for the 1990s, the means by which the recently introduced Active Employment Strategy might operate to meet both social justice objectives (allowing people to determine the direction of their own lives) and income equality goals are examined. This possibility is explored with reference to an earlier proposal made in 1987 that Aboriginal people residing at remote outstations and homelands could maximise their incomes through a guaranteed minimum income scheme (Altman and Taylor, 1989).

The arguments put forward here are made with full recognition of legislative and administrative complexities that they may entail. The central dilemma is that policy realism dictates that it be recognised that the majority of Aboriginal people need cash income and income support, but equity goals dictate that Aboriginal and other Australians be treated equally. The principal issue is how income support can be structured to open up opportunities and life chances for Aboriginal Australians. The emphasis here is on a progressive income support agenda for the 1990s that can simultaneously move Aboriginal people towards income equality; this paper rejects some ultra-conservative arguments, recently articulated in the press in the central Australian context, that social security is totally inappropriate for Aborigines, with the not-so-hidden agenda that it may be preferable to return to the 1960s when Aboriginal people did not receive their full social security entitlements.

It is important to emphasise that the term 'appropriateness' is used here principally in relation to mainstream labour markets and that this paper has a somewhat narrow economic policy focus. Issues of the cultural appropriateness of social security legislation and in particular its ability to accommodate distinct Aboriginal practices like polygyny and tribal marriage have been raised elsewhere (Sanders 1986; 1987). It is also important to caution that none of the policy options canvassed here are based on any wide-ranging consultation with Aboriginal people.

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1.   This paper was completed just as unemployment benefits (UB) were being replaced by Job
      Search Allowance (JSA) and Newstart. Hence an attempt is made to use the past tense when
      referring to UB.

2   Income Support Options

The full range of income support options only became available to Aboriginal Australians in the last decade. It is all too easy to overlook that it was only during 1979/80 that Aboriginal residents of outstations and homelands became eligible for unemployment benefit entitlements. Many Aboriginal people were only paid pension entitlements from the 1960s (Peterson, 1985; Sanders, 1986) and similarly in many rural and remote regions, unemployment benefit eligibility was only recognised with the expansion of award conditions to Aboriginal settlements and missions (Sanders, 1985).

An additional income support option that is available to Aboriginal people, but not to other Australians, is the CDEP scheme. While the CDEP scheme was introduced to Aboriginal communities from 1977, its initial expansion was very slow. Its very close notional links to unemployment benefit (UB) entitlements (UB plus 10 per cent on-costs) resulted in it being primarily regarded as income support. While it is rarely officially acknowledged today, an important consideration in the introduction of the CDEP scheme was to allow a degree of community control over individual incomes (and expenditure). As the payment of unemployment benefits to remote Aboriginal settlements expanded rapidly, a sudden influx of cash was perceived to cause, or have the capacity to cause, social upheaval (Department of Aboriginal Affairs, 1977: 1). Nevertheless, from the outset the CDEP scheme also had 'work-for-the-dole' employment and 'community development' components.

Since 1987 there has been a rapid expansion in the CDEP scheme; participant numbers have grown from 6,000 in 1986/87 to 18,266 in 1990/91. With this expansion, the scheme has been increasingly viewed as an employment development program, partly because the nexus with UB altered from UB entitlement plus 10 per cent on-costs to UB entitlement plus up to 35 per cent on-costs and capital support. The political and bureaucratic appeal of the CDEP scheme is obvious: despite its notional nexus with UB, the financial cost of the scheme is regarded as program expenditure and not welfare. Similarly, participants are classified as 'employed' for census purposes. Hence in the 1986 Census the classification of CDEP participants (4,000) as employed would have reduced the Aboriginal unemployment rate from 41 per cent to 35 per cent. The impact in the 1991 Census could be far more marked. Based on projections by Tesfaghiorghis and Gray (1991) it is estimated that the Aboriginal labour force in 1991 (assuming participation rates in 1991 similar to 1986) will total 73,500; the current 18,266 participants could account for 25 per cent of the estimated labour force and could reduce the official Aboriginal unemployment rate to a level that is similar to the national average. With a further expansion of the CDEP scheme, employment equality may be achievable. However, it must be recalled that CDEP scheme participants are invariably employed part-time and for wages limited to unemployment benefit entitlements. Under such conditions income equality will not occur.

3 Recent Statistics on Aboriginal Incomes

A recent analysis of census data from the four Censuses that have attempted to fully count Aboriginal people (1971, 1976, 1981 and 1986) indicate that Aboriginal (cash) income status has improved, but from a low base (Tesfaghiorghis and Altman, 1991: 25). In 1986, median Aboriginal individual income ($6,214) was 65 per cent of the median for the total population's income ($9,593) and mean Aboriginal income ($8,017) was 65 per cent of the total population's income ($12,251).

Using 1986 Census data Tesfaghiorghis (1991a; 1991b) has demonstrated marked variations in Aboriginal incomes on the basis of a range of geographic disaggregations including States and Territories, section-of-State (major urban, other urban, rural locality and other rural) and ATSIC regional council jurisdictions. In some regions, but most especially the Australian Capital Territory, Aboriginal incomes exceed the Australian average, although on an Australian Capital Territory-basis they are still only 80 per cent of the median incomes for the total population.

There are indications that there has been a shift in the direction of income equality in the period 1971 to 1986, although it is possible that this movement merely reflects the fuller incorporation of Aboriginal people in the welfare state and the rapid expansion (in real terms) in Federal Government expenditure on special Aboriginal programs. Alternatively, such improvement in real income status may reflect the recent self-identification of previously 'integrated' Aboriginal people who would have probably already enjoyed a relatively high income status. Certainly there is some current concern that this divergence may have stalled with recent stagnation in employment growth and as incomes reach ceilings imposed by transfer payments. It is interesting to recall in this context that Fisk (1985: 79) estimated that at the time of the 1981 Census 54 per cent of Aboriginal personal income was derived from social security payments; more recently, Gregory (1991) has estimated that as much as 75 per cent of Aboriginal income may be from government transfers. It will be necessary to await 1991 Census data to verify if Aboriginal incomes have indeed stagnated.

While not aiming to link income support options with markedly different labour market situations, it is probably important to differentiate three situations. In the first situation there is no labour market and income support is needed on an on-going basis. This situation most commonly occurs at outstations where residents are not only effectively removed from mainstream labour markets, but frequently have located themselves at remote locations precisely to escape the urban living that is associated with labour markets. In the second situation, generally associated with Aboriginal townships or mixed townships, very small labour markets exist with limited employment opportunities. In these situations on-going income support (often associated with training or job creation programs) will again be needed for the majority. In the third situation, evident at urban and major urban centres, mainstream labour markets exist and Aboriginal participation is potentially unlimited, except for obvious demand and supply-side factors.

There is little variation in the income support options available in these three very different situations. For example, social security entitlements can be paid at an outstation and residents are required to pass work and income tests as if living in a major urban area. Similarly, the CDEP scheme that was initially limited in coverage to remote Aboriginal townships has now expanded to such an extent that it is available at remote outstations at one extreme, and major urban areas at the other.

3.1 Some Preconditions for Appropriate Income Support

If it is accepted that income equality is a major policy goal, it must also be assumed that it is a goal for a high proportion of Aboriginal Australians. What problems and issues are raised by current options in achieving this policy goal?

At an abstract policy level preconditions for appropriate income support that will facilitate income growth can be readily spelt out. In this discussion paper the range is limited to three. First, it is important that appropriate incentive structures are devised so that income-generating opportunities are not forgone. With the UB and pensions support regime, the major disincentive to increase income is the income test (assuming that the assets test is of no consequence to almost all Aboriginal people on welfare). Poverty and welfare traps are not, of course, limited to Aboriginal people, and Cass (1988) made recommendations that income ceilings be lifted to provide the unemployed with incentives to earn additional income.

Income testing only applies to the cash nexus, and there is a small (and increasingly dated) literature summarised by Altman and Taylor (1989) that demonstrates that productive activity in the informal economy, mainly in the subsistence sector, can generate import substituting income in kind. Indeed it has been argued elsewhere that a welfare support regime may be preferable to CDEP support because individuals have more free time under the former to pursue productive activity (see Altman and Taylor, 1989; Arthur, 1991). Of course, productive activity need not be limited to subsistence and can extend to export and income generating activities like arts and crafts manufacture and commercial fishing. Such cash earning activities are frequently undertaken in the hidden economy as income may remain undeclared; such a strategy does not lay the foundations for sound long-term economic policy.

A second precondition would be that appropriate income support options ensure the optimal employment outcomes. For example, where labour markets are non-existent, the ideal outcome would be for people to participate in the informal economy; where a limited labour market exists, the ideal outcome would be to direct the best local people to available jobs; where an active labour market exists the ideal outcome would be for the incorporation of all Aboriginal people actively seeking work. However, it is recognised that two of these labour markets could co-exist on a regional basis and targeting income support options to ensure optimal employment outcomes would be difficult.

A third precondition would be that different income support regimes should suit different circumstances. This is especially the case where there is no labour market.

In such circumstances, and especially at outstations where people lead such a distinct lifestyle, normal social security provisions and eligibility requirements are probably of questionable appropriateness.

In practice, each of these normative preconditions face problems. One rather obvious problem is the mobility (and frequent dual residence) that occurs especially between the non-existent labour market situation at outstations, where guaranteed minimum income is appropriate, and the limited labour market situations at Aboriginal and mixed townships. (The whole issue of Aboriginal labour migration is important in the context of the AEDP, see Taylor, 1991.) A second problem is that both welfare and CDEP income support regimes have the consequence of undermining income maximising incentives, although there is a distinct possibility that the CDEP scheme with its usual requirement that people undertake work for community councils is worse. On the other hand, it has generally been assumed that any additional income earned by participants in the CDEP scheme is not income tested. Currently, though, guide-lines seem to differentiate income from non-CDEP wage employment (that is subject to income testing) and income from casual and seasonal employment and informal economic activities that is not income tested. It is unclear whether, in practice, CDEP scheme participants are rigorously income tested. There are suggestions that a move to limit income from other sources is inevitable (Morony, 1991). It is of concern that for income generating purposes, both systems appear to provide the wrong signals, especially where productive opportunities exist (Altman and Sanders, 1991b).

4 Issues and Options for the 1990s

At the outset of the 1990s the potential for radical restructuring of income support options for Aboriginal Australians appear circumscribed. The UB alternative that was so readily embraced by Aboriginal people in the 1970s has disappeared and was replaced from 1 July 1991 by Job Search Allowance (JSA) for a 12 month period and then by Newstart. Newstart will require the negotiation of an agreement between Aboriginal clients and the Commonwealth Employment Service (CES) which will outline a client's obligations to qualify for continuing income support. While a program such as the Active Employment Strategy may be commendable where employment opportunities exist, it remains unclear how both JSA and Newstart will operate where Aboriginal people have no or limited access to active labour markets. It is conceivable that a very high proportion of Aboriginal people not currently participating in the CDEP scheme and locationally disadvantaged with respect to labour markets will fall into this category. A proposed Department of Social Security information brief specifies that 'activity for activity's sake will not be required'.

One alternative to JSA/Newstart income support that is already a preferred option for many Aboriginal people is to qualify for the range of other pensions that do not require work testing and that will presumably be outside the ambit of the Active Employment Strategy. This option has elements of a discouraged job seekers effect, but again merely raises the issue of the appropriateness of JSA/Newstart as income

support for the unemployed when a large proportion of the population is unemployed.

The other alternative to social security is the CDEP scheme, but its expansion is currently severely curtailed. Furthermore, the CDEP scheme faces a range of administrative and policy pressures (Altman and Sanders, 1991b). For example, as the scheme is now seen primarily as an employment program and as an integral part of the AEDP, the Federal Government wants to see some employment outcomes in terms of generation of full-time award positions. It seems unlikely that there will be a rapid expansion in this scheme prior to the review of the AEDP in 1992/93.

Equity and social justice may require a different range of income support options for Aboriginal Australians, but in the current economic climate of stringent performance evaluation it is likely that any new scheme will be based on rigorous criteria and accurate scheduling of participants. Two 'radical' possibilities come to mind. One is the Guaranteed Minimum Income for Outstations (GMIO) scheme proposed in 1987 and partly modelled on the James Bay Cree Income Security Program (ISP). Eligibility for participation in such a scheme could be a required period of residence at an outstation, such as 180 days per annum (Altman and Taylor, 1989: 77). Another possibility would be the bifurcation of the CDEP scheme into an employment program and an income support program. The former would be applicable to situations where a labour market existed, the latter to non-labour market situations. Like the existing Enterprise Employment Assistance (EEA) scheme, a distinction could be made between providing funding support for a limited period (in the former situation) or on an on-going basis (in the latter).

Another promising possibility is that JSA and Newstart are modified in situations where there are no active labour markets to operate as de facto guaranteed minimum income schemes. If employment were more widely defined to include traditional and informal activities, then income support could be provided on condition that clients participate in some income generating activity. The issue here will be what income test will be applied to additional earnings.

5   Conclusion

A key issue for the 1990s is the compatibility between the Federal Government's broader goals, especially in this context, of income equality and social justice, and the range of income support options currently available. It has been argued elsewhere that for a range of locational, cultural, structural and other reasons it is highly unlikely that AEDP goals will be realised (Altman and Sanders, 1991a). But it is important that, at the very least, change is in the right direction. A move towards income equality and reduced overall welfare dependency will only occur if income support structures are put in place that will provide the right incentives for Aboriginal individuals and families to seek productive income generating work, open up new possibilities in the differing circumstances which exist, and still guarantee Aboriginal people a minimum income.

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Financing Pensions with Population Ageing: Some Policy Choices

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1 Introduction

In recent years the pensions debate has been dominated by forecasts of ageing populations in virtually all industrialised economies; see OECD (1988), Heller et al. (1986) and Creedy and Disney (1989a). The argument that future generations of workers will not be prepared to suffer the burden of pension financing is often used to suggest that pensions will have to be reduced. The main issues are, however, much more complex. The emphasis on demographic variables often ignores the changing labour force participation, especially of women, associated with slower population growth, and cost reductions in other areas.

Pension and tax structures have more flexibility than is often appreciated. For example, recent pensioners are on average better off than previous cohorts; a larger proportion have access to private pension schemes and have experienced much higher incomes during their working lives. Consequently, the 'burden' of financing transfers to poorer pensioners can be shared between workers **and** pensioners who are relatively richer. Furthermore, many tax structures effectively 'claw back' some of the pension transfers. For example, in most countries pensions are included as part of taxable income, and additional revenue will be obtained from indirect taxes arising from expenditure of the transfers, particularly countries which have a consumption tax such as the Value Added Tax (VAT). A more direct method of concentrating payments on poorer pensioners is means-testing, which plays an important part in the Australian state pension scheme.

This paper examines policy implications of ageing populations in alternative pension and tax structures. Two major types of scheme are compared. The first has a means-tested, taxable state pension which is financed only from income taxation. This may be regarded as a stylised version of the Australian scheme; for further details see Foster (1988) and Creedy and Disney (1989b). The second structure has a basic taxable pension which is not means-tested. This pension is financed using a combination of income taxation and a consumption tax similar to a Value Added Tax, along with special contributions which are related to gross earnings, similar to the British National Insurance Contribution (NIC) scheme.

2   Alternative Systems

In order to concentrate on the major issues involved, it is necessary to consider simplified systems which capture the main elements of those schemes used in practice. This section presents the two basic types of pension scheme examined. Both systems use an income tax schedule which has a tax-free threshold and a single marginal tax rate applied to income measured above the threshold. The analysis concentrates on the problem of financing a basic pension and excludes consideration of any earnings-related component such as that used in the UK. Dependents' benefits are also ignored and the models deal with individuals as the unit of analysis. In addition, eligibility conditions, which are often quite complex, are ignored. Hence the models consider just two groups, those over retirement age, all of whom are pensioners, and workers.

2.1   A Means-Tested Pension

The first system considered is one in which pensioners receive a basic pension which is subject to income taxation and is means-tested according to the pensioner's gross income. The income test is very similar to that used in Australia. Denote the basic pension by b and consider a pensioner whose gross non-pension income is y. If income is below a lower limit, y_e, then the full pension is received. When y exceeds y_e, the pension is reduced by a proportion, s, of income in excess of the lower limit. Thus the pension is reduced by an amount $s(y - y_e)$, and no pension is received once y reaches an upper limit, y_u, equal to $y_e + b/s$. An equivalent way of viewing this income test is to regard each individual as receiving b and then paying a 'pension tax', P(y), given by:

$$
\begin{aligned}
P(y) &= 0 & &\text{for } y \leq y_e \\
&= s(y - y_e) & &\text{for } y_e < y < y_u \\
&= b & &\text{for } y \geq y_u
\end{aligned}
\tag{1}
$$

In assessing each pensioner for income taxation, it is necessary to avoid the double taxation of the pension tax by making it deductible. Suppose the income tax threshold for pensioners is a_r. Then if the marginal tax rate is denoted t, the income tax paid on a non-pension income of y, denoted $T_r(y)$, is given by:

$$T_r(y) = t[(y + b) - \{a_r + P(y)\}]\tag{2}$$

Here $y + b$ is total income and $a_r + P(y)$ measures the total allowance against that income for tax purposes. Following the Australian system, $b = a_r$, so that:

$$T_r(y) = t\{y - P(y)\}\tag{3}$$

and taxable income is equal to non-pension income less the amount of pension tax paid.

If a worker's income is denoted by w, and the tax-free threshold applied to workers is a, then the tax revenue T(w) is given by:

$$T(w) = 0 \qquad \text{for } w \le a$$
$$\quad\;\;= t(w - a) \quad \text{for } w > a \qquad\qquad (4)$$

Because of the various thresholds used in the income tax and pension tax systems, the total amount paid depends on the precise forms of the distributions of workers' and pensioners' incomes. It is not sufficient merely to know the arithmetic mean values of y and w, denoted $\bar{y}$ and $\bar{w}$ respectively. In producing numerical examples below, it will be necessary to specify the precise forms of these distributions.

2.2   A Basic Pension With Indirect Taxes

The means-tested scheme will be compared with one which provides an unconditional basic pension, but in which there is also an indirect tax similar to VAT, along with contributions similar to NICs. The effect of the consumption tax is to 'claw back' some of the transfer payment paid to each pensioner. If the tax threshold for pensioners is the same as that for workers, of a, then the tax paid by pensioners $T_r(y)$ is given by:

$$T_r(y) = t\{(y + b) - a\} \qquad\qquad (5)$$

When b > a, all pensioners will pay income taxation. The income tax schedule facing workers is the same as in the first scheme. National Insurance Contributions, C(w), are assumed to be a constant proportion, c, of the gross income of workers, applied between two limits w_e and w_u. The British system took this form for some years, and more formally it is given by:

$$C(w) = 0 \qquad \text{for } w < w_e$$
$$\quad\;\;= cw \qquad \text{for } w_e \le w < w_u$$
$$\quad\;\;= cw_u \qquad \text{for } w \ge w_u \qquad\qquad (6)$$

Like the income tax system, it would be possible to examine a more complex NIC scheme using the approach shown below.

Workers and pensioners pay VAT, which involves a proportional rate, v, applied to total tax-exclusive consumption expenditure, for which the equivalent rate expressed as a tax-inclusive rate is given by v/(1 + v). If workers and pensioners save a proportion s_w and s_r respectively of their net income, then the amount of VAT paid, V(w) and $V_r(y)$ respectively, is given by:

$$V(w) = (1 - s_w)\{w - T(w) - C(w)\}\{v/(1 + v)\} \qquad\qquad (7)$$

$$V_r(y) = (1 - s_r)\{y - T_r(y)\}\{v/(1 + v)\} \qquad\qquad (8)$$

In order to concentrate on the differences between the two types of scheme, it is assumed that $s_w = s_r = 0$.

It is necessary to examine the effective overall marginal rate of tax in this system. Consider a worker whose income, w, is such that income tax and NICs are paid. With $s_w = 0$, the total tax paid is given by:

$$T(w) + C(w) + \{w - T(w) - C(w)\}\{v/(1 + v)\} = \{T(w) + C(w) + vw\}/(1 + v) \quad (9)$$

Appropriate substitution from (4) and (6) into (9) then gives total tax of:

$$w\{(t + c + v)/(1 + v)\} - at/(1 + v) \quad\quad\quad\quad\quad\quad (10)$$

For those workers with income between w_e and w_u, the effective marginal tax rate is equal to $(t + v + c)/(1 + v)$. The effective average tax is given by: $\{v + c + t(1 - a/w)\}/(1 + v)$. For the first scheme, the marginal rate is t and the average rate is $t(1 - a/w)$. These comparisons need to be kept in mind in Section 4.

The two schemes differ in the number and type of policy instruments available to governments. However, freedom to choose these variables independently is restricted by the government's budget constraint.

3   The Government Budget Constraint

3.1   The Basic Approach

The taxes used in the two systems must finance other forms of government expenditure, in addition to state age pensions. Policy variables can be adjusted subject to the constraint that expenditure on pensions plus expenditure for other purposes is equal to the sum of tax revenue from all sources from the retired and working populations. The approach used below is to express each component of the government's budget constraint precisely in terms of the tax and pension structure, along with demographic variables and the distribution of income of both pensioners and workers. The resulting equation is then imposed in order to solve for the marginal income tax rate, given the other policy variables.

3.2   The Means-Tested Pension

In this structure government expenditure must equal the income tax revenue from both the retired and working populations, plus the pension tax. Taxable income of all pensioners combined is, using (3), the total non-pension income less the total amount of pension tax paid. With a marginal tax rate of t, the budget constraint may be expressed as:

Solving for the tax rate gives:

$$t = \frac{\left\{\begin{array}{c}\text{government}\\\text{expenditure}\end{array}\right\} - \left\{\begin{array}{c}\text{pension}\\\text{tax}\end{array}\right\}}{\left\{\begin{array}{c}\text{workers'}\\\text{taxable}\\\text{income}\end{array}\right\} + \left\{\begin{array}{c}\text{pensioners'}\\\text{non-pension}\\\text{income}\end{array}\right\} - \left\{\begin{array}{c}\text{pension}\\\text{tax}\end{array}\right\}} \tag{11}$$

Equation (11) shows that when government pension expenditure increases, either because of a change in the pension itself or an increase in the number of pensioners, the tax rate must increase. But the change in pension expenditure may also be accompanied by an increase in the total non-pension income of pensioners, which reduces the required tax rate. An increase in the total pension tax revenue reduces the required tax rate, although pension tax appears in both the numerator and denominator of (11), because government expenditure is necessarily less than the tax base. Detailed comparisons require the components of (11) to be derived precisely in terms of the pension and tax structure. The mathematical derivations cannot be given here because of space constraints, but may be found in Creedy and Morgan (1991).

3.3 The Basic Pension With Indirect Taxes

Consider first the total tax paid by workers, which is the sum of direct and indirect taxes, and given by:

$$t\left\{\begin{array}{c}\text{workers'}\\\text{taxable}\\\text{income}\end{array}\right\} + \left\{\begin{array}{c}\text{workers'}\\\text{NICs}\end{array}\right\} + \frac{v}{1+v}\left[\left\{\begin{array}{c}\text{workers'}\\\text{total}\\\text{income}\end{array}\right\} - t\left\{\begin{array}{c}\text{workers'}\\\text{taxable}\\\text{income}\end{array}\right\} - \left\{\begin{array}{c}\text{workers'}\\\text{NICs}\end{array}\right\}\right]$$

This can be rearranged to get:

$$\frac{1}{1+v}\left[t\left\{\begin{array}{c}\text{workers'}\\\text{taxable}\\\text{income}\end{array}\right\} + \left\{\begin{array}{c}\text{workers'}\\\text{NICs}\end{array}\right\} + v\left\{\begin{array}{c}\text{workers'}\\\text{total}\\\text{income}\end{array}\right\}\right] \tag{12}$$

To this must be added the total tax revenue of pensioners, who do not pay National Insurance Contributions. Hence the expression in (12) can be converted to give total revenue by substituting 'total taxable income' for the first term in curly brackets and 'total income' for the third term in curly brackets. The result must then be equated to government expenditure to get the budget constraint, which can then be solved for t to give:

$$t = \frac{(1+v)\left\{\begin{array}{c}\text{government}\\\text{expenditure}\end{array}\right\} - \left\{\begin{array}{c}\text{workers'}\\\text{NICs}\end{array}\right\} - v\left\{\begin{array}{c}\text{total}\\\text{income}\end{array}\right\}}{\{\text{total taxable income}\}} \tag{13}$$

Full details of the components of (13) are given in Creedy and Morgan (1991).

4 Ageing Populations and the Tax Rate

The budget constraints (11) and (13) can be used to obtain precise orders of magnitude for a wide variety of alternative tax and population structures. In view of the complexity of the systems, numerical comparisons are required. The various terms in the budget constraints depend not only on average pensioner and worker incomes but also on their distribution, so that assumptions about the form of these distributions are needed.   The forms chosen must provide a reasonable approximation to reality and be tractable. The lognormal distribution meets both of these requirements, and is used in all of the calculations reported below. In view of the importance of increasing pensioner incomes, calculations will be reported below for alternative values of $\bar{y}$. The results all apply to the following parameter values: the variance of logarithms of pensioners' and workers' incomes are respectively 0.5 and 0.3; $\bar{w} = \$40,000$, a = $5,000 and the additional (non-pension) expenditure per person is $7,000 throughout. Comparisons are made for $\bar{y}$ equal to $8,000 and $16,000.

4.1 Some Comparisons

The effect of increasing dependency is illustrated in Figure 1 for the means-tested scheme, where $y_e = \$2,000$, s = 0.5 and $\bar{y} = \$8,000$. The threshold income level above which means-testing applies and the pension tax (taper) rate are similar to those in Australia. Results are shown for four levels of the basic pension, ranging from $4,000 to $10,000. The schedules are found to be approximately linear, with the slope increasing as the basic pension increases. A higher value of $\bar{y}$ reduces the slopes. It is not suggested that an economy would actually move along the profiles; rather, movement would be expected from one profile to a lower profile. The values shown in Figure 1 may be contrasted with the simplistic framework that is often used in pension debates, whereby there is a basic non-taxable pension and a proportional income tax scheme, and $\bar{y} = 0$. In this case when b = 10,000, it can be found that a doubling of the dependency ratio from 0.2 to 0.4 would imply an increase in t by a factor of 1.33. The corresponding case in Figure 1 implies an increase in the marginal income tax rate by a factor of 1.25.

Figure 2 illustrates the second structure. Results are shown for a consumption tax at the rate v = 0.15 and a NIC applied to income between $8,500 and $75,000 at the rate of 0.075. These values are similar to those in the UK. As in Figure 1, $\bar{y} = 8,000$. Comparison with means-testing alone may be made by setting c = v = 0 in the non-means-tested scheme, shown in Figure 3.   Figures 1 and 3 show, as expected, that the marginal income tax rates are generally lower where means-testing is used, but other features are the same. An exception to this general rule is where the basic pension is relatively high and the value of $\bar{y}$ is relatively low; for values of D above about .45 and a pension of $10,000 with $\bar{y} = \$8,000$ the means-tested scheme actually requires a higher value of t. The explanation for this is the different tax structure applying to pensioners in the two schemes; in the means-tested scheme

Figure 1: The Means-Tested System
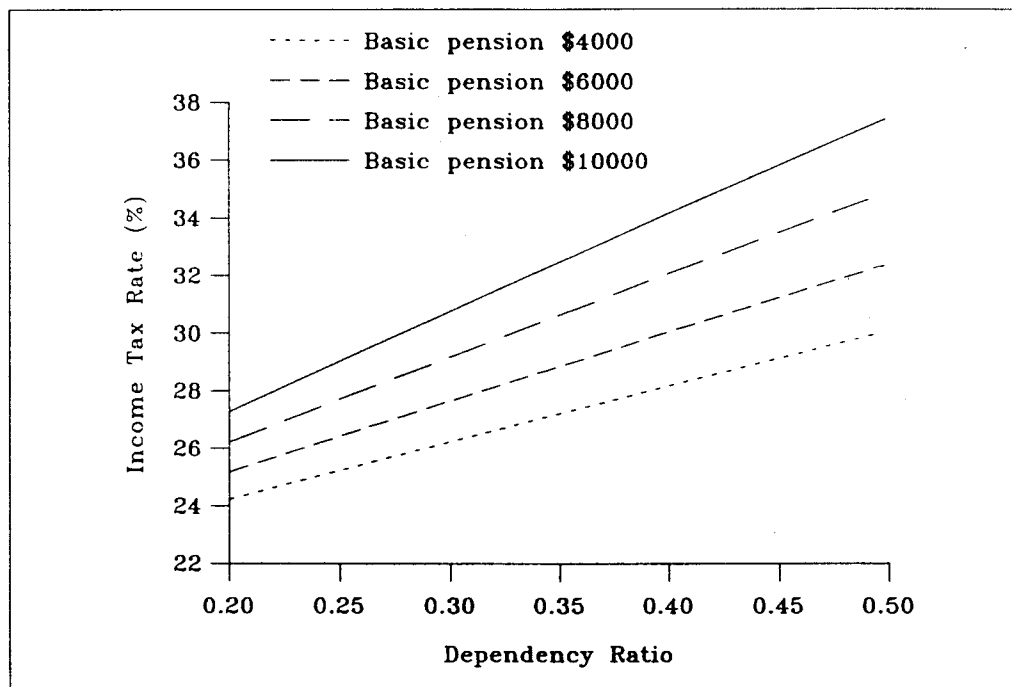
the threshold is equal to the basic pension, so as the latter rises the taxable income of pensioners falls. For a higher value of $\bar{y}$ than that used in Figures 1 and 3, there is a much larger difference between required tax rates, with that required in the means-tested structure being much lower.

Figure 4 shows marginal and average tax rates (calculated at $\bar{w}$) for the means-tested scheme, with two values of the basic pension, and other values corresponding to those used in Figure 1. These may be compared with the lower overall effective marginal and average rates shown in Figure 5, which in other respects corresponds to Figure 2. The interesting result which arises when comparing Figures 4 and 5 is that the marginal and effective overall rates are much closer together in the structure which uses the combination of income and consumption taxes with the NIC. This means that, for each value of b and most values of D, the effective marginal rate is **lower** with the multi-tax system than when means-testing is used with only an income tax, but the average tax rate is **higher**.

It has been suggested that recent policy debates have typically ignored the extent to which pensioners, on average, receive higher incomes from sources other than state pensions. This means that the 'burden' of financing transfer payments to low income pensioners is shared between relatively richer workers **and** pensioners. The effect of increasing dependency, with a higher value of $\bar{y}$, is shown in Figures 6 and 7 for the

Figure 2: A Basic Pension with VAT and NIC
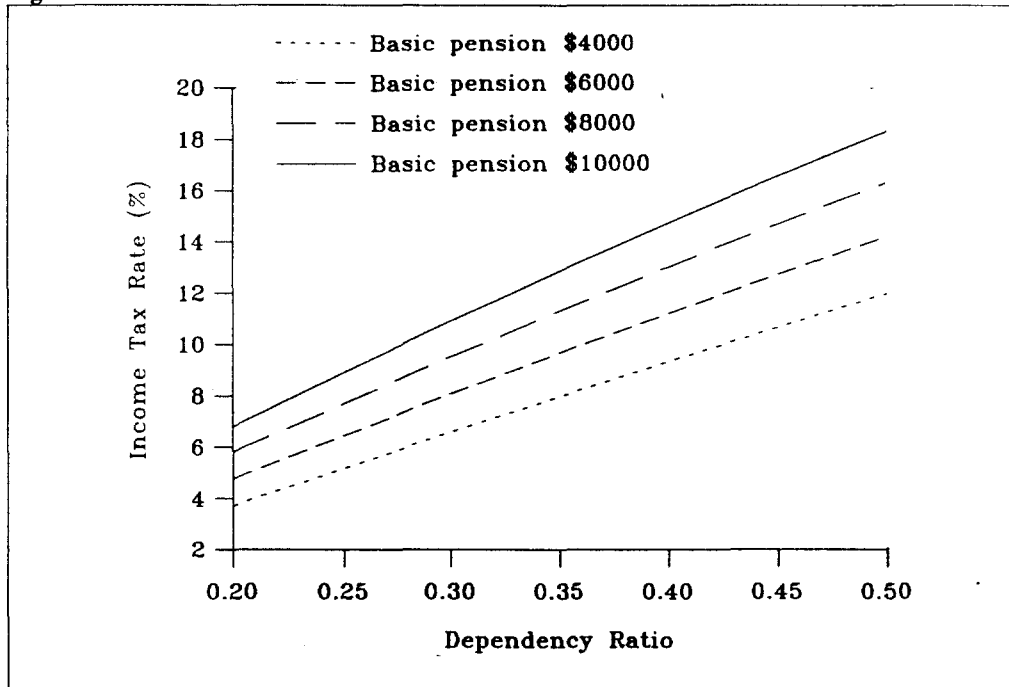
Figure 3: Effective Rates with no Means-Test
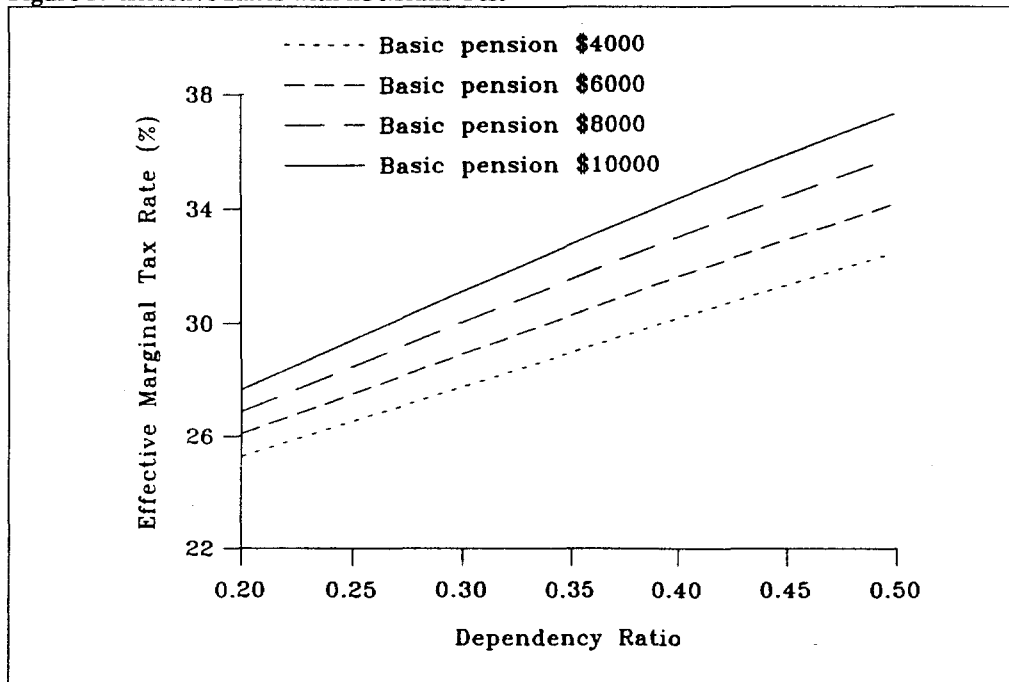
Figure 4: Marginal/Average Rates with no Means-Test
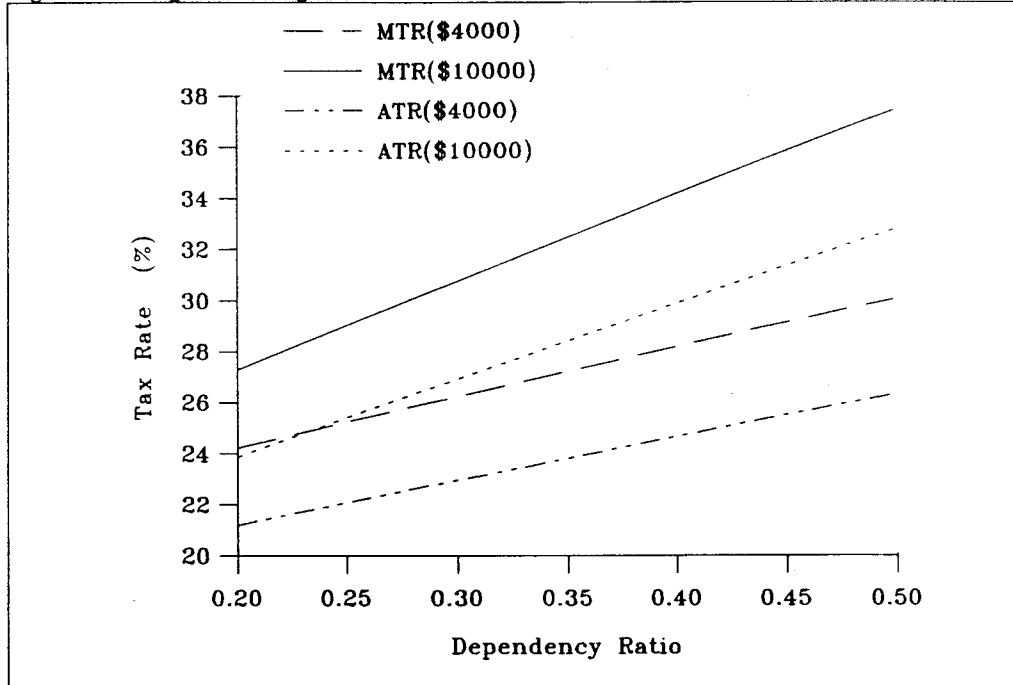
Figure 5: Marginal/Average Rates with Multi-Tax
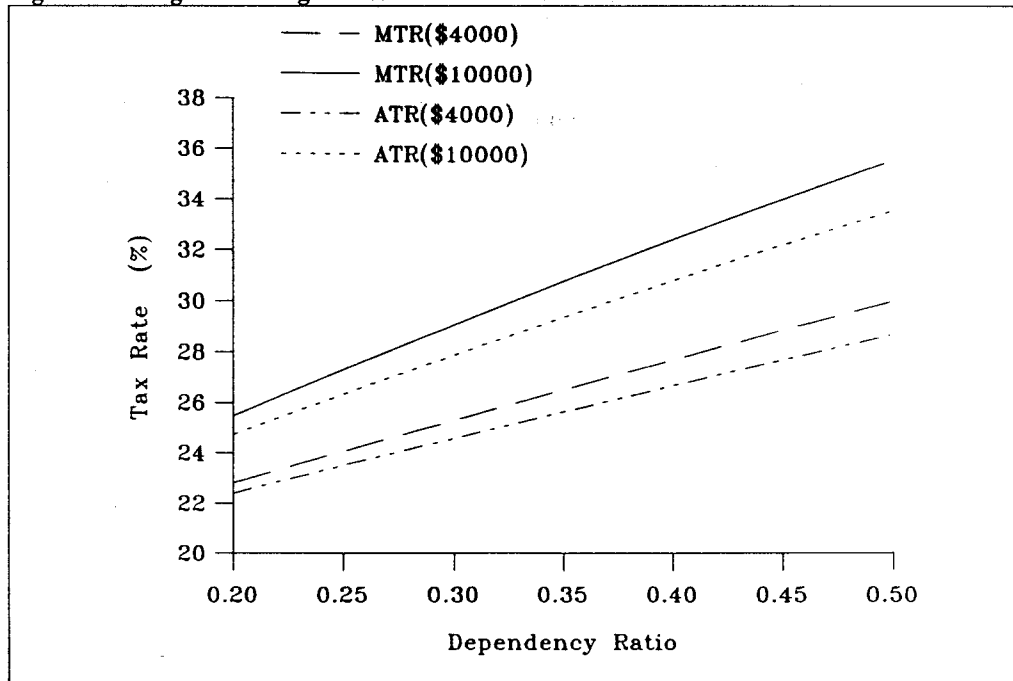
Figure 6: Means-Test: High Average Pensioner Income
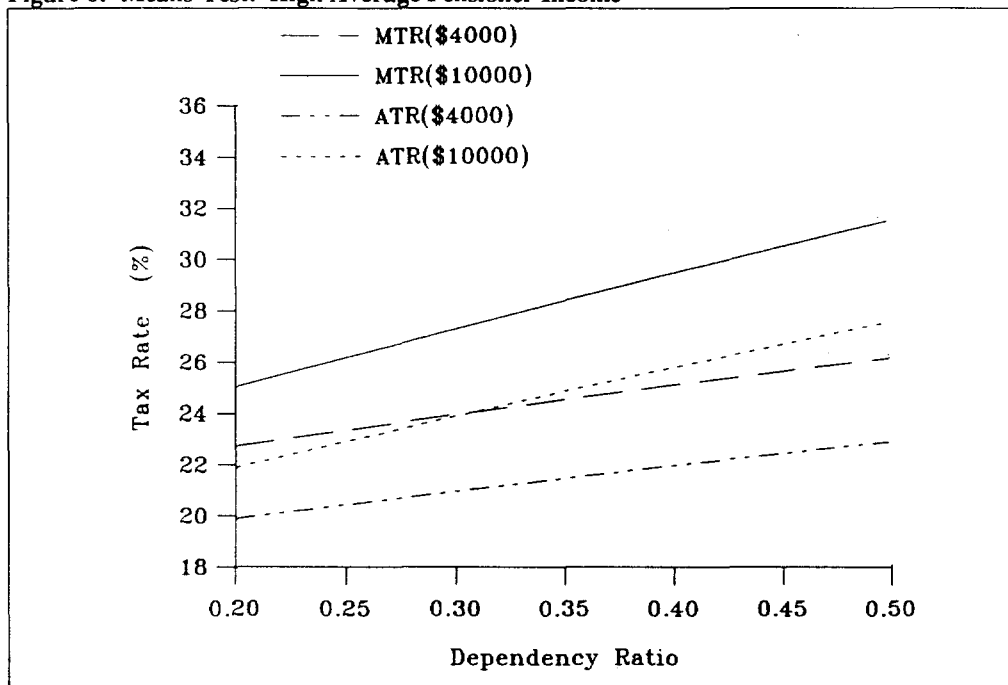
Figure 7: Multi-Tax: High Average Pensioner Income
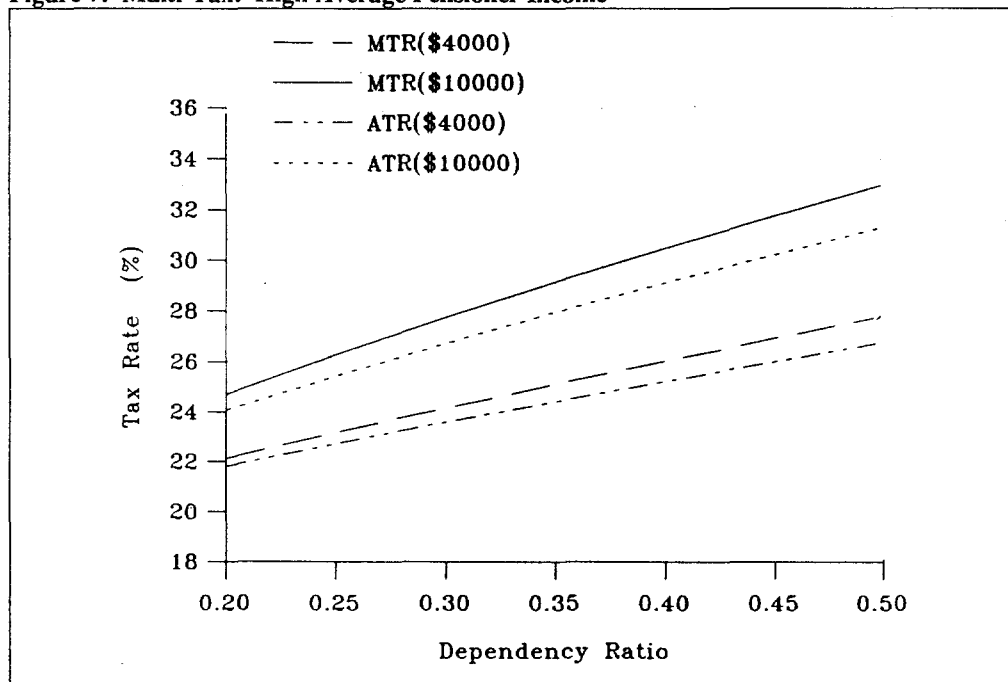
case where $\bar{y}$ = \$16,000 but the other parameters are the same as for Figures 4 and 5. In this case it is found that for dependency ratios in excess of 0.25 (when b = \$4,000) or 0.30 (when b = \$10,000), the effective marginal tax rate is higher in the multi-rate scheme than in the scheme using means-testing. However, the average tax rates are consistently lower in the latter scheme.

The approach used here has the advantage of generating the detailed implications of alternative policy proposals. For example, Gruen suggested that the taper rate, or pension tax rate, in the Australian pension scheme should be reduced 'to 25 per cent or at most 33 per cent. One way in which the cost of this reform could be reduced is if the income-free area associated with the pension were abolished' (1985: 621). Many proposals, unlike Gruen's, do not even consider the fact that a policy to increase expenditure must be accompanied by suggestions relating to its finance and an analysis of the combined package. This proposal may be examined by setting y_e equal to zero, while reducing the value of s in the means-tested scheme, and then finding the new rate of income tax required to ensure that these changes are deficit neutral. In a wide range of situations (depending on the level of the basic pension and the average non-pension income of pensioners, along with the dependency ratio) it was found that a slight increase in the income tax rate would be required to finance the change. However, this increase was less than one percentage point in all cases. Where b and $\bar{y}$ are relatively low (at 4,000 and 8,000 respectively), the use of s = 0.33 and y_e = 0 involved approximately the same tax rate as when s = 0.5 and y_e = 2,000.

5   Conclusion

If the aim of a state pension policy is seen to be the transfer from the working population of a specified real amount to **every** retired person, then it is obvious that increased dependency will raise problems. However, the purpose of a state pension scheme is usually to ensure a basic minimum standard of living for pensioners. When pensions are taxable, and when it is recognised that higher dependency ratios have been associated with higher average taxable incomes (from other sources) of pensioners, then the problems are no longer seen as being so severe. Thus, the relatively poorer pensioners are supported by transfers not only from the working population but also from the relatively richer pensioners. The extreme method of concentrating state pensions is to use an income-test, which may usefully be regarded as a special kind of pension tax.

It has been seen that in each type of system examined there are many complex interdependencies among the various taxes, so that much care needs to be taken in making comparisons of tax rates. Although the schemes examined abstract from many complexities, an advantage of the approach is that it allows computations, using specially designed computer programs, of a vast range of alternative policies to be carried out. It is argued that a clear appreciation of the orders of magnitude involved in policy choices is an important prerequisite for rational policy debate.

The computer programs have therefore been made 'user friendly' and are available from the authors with full instructions for their use.

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Policy or Participation? Relative Income Shifts of Families with Children, and Elderly Households. New Zealand in the 1980s

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1 Introduction

Up until, and into, the 1970s much of the concern about households living 'in poverty' was focused on the elderly. This concern led to policy responses aimed at redistributing income towards that age group. In New Zealand these included the introduction of National Superannuation (now Guaranteed Retirement Income - GRI), a generous pension universally available to all persons reaching age 60. Despite some subsequent governmental attempts at 'clawback', the overall economic position of the 'over-60s' has undoubtedly improved significantly compared to two decades ago. This is not to say that certain groups of elderly people, e.g. those in rented accommodation, are not at risk of financial hardship.

1.1 Selfish Generations?

Income redistribution towards the elderly was, in New Zealand, so marked that it has led to a 'generational capture' thesis. This postulates a 'fortunate' or 'selfish' generation, born between about 1925 and 1950, which in its child-raising years benefitted from subsidised housing and generous Family Benefits, plus largely free education and health services. More recently this same cohort has benefitted from generous old-age pensions (Thomson, 1991).

1.2 Families in Australia and the USA

Recently, in a number of countries, concern has swung back to the economic position of families with children. Australians are pledged to ending 'child poverty'. A recent study shows considerable progress towards that end... 'we do feel confident in asserting that increases in employment and income support for families with

children over the last seven years have significantly improved the circumstances of the poorest groups. ... Middle income families however, have not done so well, particularly when incomes after housing costs are considered' (Bradbury, Doyle and Whiteford, 1990).

Thus while real median incomes increased overall and for most household types in Australia between 1982-83 and 1989-90, particularly for sole parents (from a low base to a still low figure), for all couples with children real median incomes were 'essentially stable' over the period.

In the United States, also, most families made significant economic gains during the economic expansion of the 1980s (Bradbury, 1990). There were exceptions, however. Those who lost ground were young families, families with key workers unemployed, and those with poorly educated family heads. To quote:

> A critical thread in these lists is employment. As the economy
> expanded, families without workers were not carried along.
> (Bradbury, 1990)

These two studies are not precisely comparable, but they both show an overall improvement in the position of families with children. However, in Australia the improvement was concentrated on low income families, whereas in the United States it was lower income families who in general lost ground.

1.3   The New Zealand Context

How does New Zealand stand? First, despite the comparative lack of prominence of 'family' in political debate, there have been sizeable changes in the delivery of family assistance in recent years. Up until the early 1980s this was mainly provided through the universal Family Benefit (although much eroded by inflation since its introduction in the 1940s), and through tax concessions to families. This changed from 1984 onwards. Tax concessions to families have virtually disappeared from the personal income tax schedules. (Although the PAYE tax mechanism continues to be used to deliver assistance to families with a parent in employment under the Family Support and Guaranteed Minimum Family Income (GMFI) schemes.)

Cash assistance has shifted rapidly towards a targeted system, despite the recommendations of the 1988 Royal Commission on Social Policy. Family Care, introduced in 1984, was soon displaced by Family Support. This consists of a supplement (cash for beneficiary households; but for earner households generally taking the form of a reduction in PAYE tax deductions) based on number of children and gradually phasing out in the middle income ranges. This shift towards a targeted system came to a logical conclusion with the abolition of the universal Family Benefit - one of the founding stones of New Zealand's welfare state - from April 1991.

1.4 The Market versus Government Redistribution

For most households, in particular 'couple with children' households, receipts of cash benefits are relatively unimportant compared with income from the marketplace and with the redistributive effects of taxation. Average market incomes fell in New Zealand in real terms during much of the 1980s. There were major reforms to the tax system. October 1986 saw the introduction of a value-added Goods and Services Tax (GST), and so a partial re-basing of the tax system on indirect rather than direct taxes. There were major flattenings of the personal tax scale in 1982, 1986 and 1988, so that in recent years the top marginal tax-rate has fallen from 66 to 33 per cent. (See Stephens, 1989 for further discussion.)

What has been the effect of these developments? Do, for example, shifts in market income explain most of the shifts in relative economic status of families and of pensioners during the 1980s? Or have changes to the tax and benefit system been more important?

1.5 Outline of Paper

In the next section we discuss briefly our principal data sources. The following section gives some summary information on the demographic and economic characteristics of New Zealand households in the 1980s, including a brief discussion of the 'social wage'. Section 4 traces shifts in the income position of different household types from 1981/82 through to 1987/88 (years end in March unless otherwise specified). The final section discusses subsequent developments and implications of the results.

2 Data

Our principal data source is the Household Expenditure and Income Survey (HEIS) conducted by the Department of Statistics. Special analyses of HEIS data for the years 1981/82, 1985/86 and 1987/88 were used. (An analysis for 1989/90 is also under way, but is not immediately available.)[1] We use a special 'lifecycle' classification of households developed by the Department of Statistics (1990). Thus

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1. The figures in this paper differ in some respects from that in the Planning Council's publication *Who Gets What?* (see also Department of Statistics, 1990). For instance survey estimates of total benefit receipts are not scaled to agree with known budget totals, as this can on occasion distort comparisons between household types. Another difference is that educational bursaries are, for reasons of consistency between 1981/82 and later years, treated as part of 'Other Regular Income', i.e. as part of Market Income, rather than more correctly as a government transfer. (Bursaries can average up to $1,000 a year for 'non-family' households, but are generally a tenth or less of this for all other household types.)

'couple with children' households are sub-categorised by age of the female partner. The focus in this paper is on 'couple with children' and 'over 60' households?

The HEIS sample numbers around 3,500 households in most years. The estimates are subject to sampling error, more particularly for the smaller household types. Although for convenience of calculation the tables show means and medians to the nearest dollar, in actuality they should be regarded at best as accurate to the nearest hundred dollars.

The analyses are in terms of 'Market Income' (wages and salaries, self-employment income, income from investment, and other regular income such as from personal and occupational superannuation schemes), 'Total Income' (market income plus benefits) and 'Disposable Income' (total income less direct personal taxes).

3   The Demographic and Economic Environment

3.1   Demographic and Social Change

Table 1 shows changes in the proportions of major household types between 1981/82 and 1987/88. Such changes in themselves affect the income distribution. For instance the higher proportion of pensioner and sole parent households, with lower than average incomes, reduces the average over all households. On the other hand, average incomes for couple with children households are probably rising relatively as such households 'age' on average. No attempt is made to control for these effects, which are probably only of marginal significance over a relatively short time period.

Another important social shift is the growing number of two-income families. From HEIS, for 1987/88, principal income earners accounted for about 70 per cent of overall household income, their partners for about 17 per cent, and other household members for 12.5 per cent. Also the contribution of second income earners is significantly greater, not surprisingly, in higher income deciles.

The increase in two-income families, and in the proportion of mothers in paid work, can be seen in Population Census data. Thus at the 1976 census, 62 per cent of all dependent children under 19 had a mother who was 'not employed'. By 1981 this proportion had fallen to 54 per cent, and by 1986 to 49 per cent (New Zealand Planning Council, 1989: Appendix 3).

3.2   Average Incomes by Household Type

Averages of market and disposable income for 1987/88 are given in Table 2. The contribution of government transfers to the disposable income of sole parents and

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2.   It should be noted also that adult children as well as dependent children are included in the 'couple with children' household type.

Table 1: Major Household Types, Proportion and Number, New Zealand

Household Type	1981/82 %	1987/88 %	number
Single person 60 +	9.7	10.7	120,000
Couple, female 60+	9.7	9.7	110,000
Couples with Children			
Female < 35	10.5	8.0	90,000
Female 30-34	9.4	7.6	86,000
Female 35-39	7.4	7.6	86,000
Female 40-44	6.2	6.5	73,000
Female 45-49	4.5	4.3	49,000
Female 50+	4.7	4.1	47,000
Sole Parent	5.8	9.4	105,000
All Households	100.0	100.0	1,125,000

Source: Department of Statistics (derived from Household Expenditure and Income Survey).

pensioners is evident. Also apparent is the shift in the other direction for 'couple with children' households. It is not always fully realised that 'family' households have, on average, higher incomes than other household types, and must necessarily pay more in taxes than they receive in benefits. Again this is on average, and of course the policy concern about families and children is largely about low-income families. Also higher incomes do not necessarily mean higher standards of living, given the generally higher spending commitments of households with children than for other household types.

Table 2 also shows the estimated contribution to household income of the 'individualised social services' of health and education, when central government spending on these is allocated over all households (the allocation is by age/sex categories for health expenditures, and by survey results on educational attendance for the education budget).

Adding together the net 'cash' flows of welfare benefits less personal taxes, plus the household allocations of government's spending on health and education, gives a possible measure of the so-called 'Social Wage'. (For a discussion of social wage concepts see Johnson, 1991.) It can be seen that the major beneficiaries from the social wage are the elderly and sole parent households. 'Couple with children' households do benefit significantly from health and education spending - for younger households primarily from maternity and infant health-care, and for older

Table 2: Redistribution by Household Type, and the 'Social Wage', 1987/88

Household Type	Average Market Income	Average Disposable Income	Net Benefits Less Tax	'Individualised' Social Services Health	Education	Total 'Social Wage'
				$		
Over-sixties						
Single person	4150	10300	6150	3100	0	9250
Couple, female > 60	9400	18950	9550	4400	0	13950
Couples with Children						
Female < 30	29900	24700	-5200	3500	1600	-100
30-34	40900	31750	-9150	2700	4400	-2050
34-39	48500	36250	-12250	2100	5800	-4350
40-44	53100	40650	-12450	1900	5550	-5000
45-49	51100	38700	-12400	2000	4900	-5500
50+	48150	41300	-6850	3000	3250	-600
All female < 35	35300	28150	-7150	3100	2950	-1100
All female > 35	50250	38900	-11350	2200	5100	-4050
All couples + children	44150	34500	-9650	2550	4200	-2900
Sole parents	12550	20150	7600	1750	3550	12900
All Households	30050	27050	-3000	2450	2350	1800

Source: Department of Statistics (derived from Housing Expenditure and Income Survey).

households more from education spending - but still on average receive a negative 'social wage'.

3.3 The Economic Environment

This was one of considerable difficulty for New Zealand through the 1980s. Indexes of Real Disposable Income show that fulltime wage and salary earners suffered on average an income fall exceeding 10 per cent between early 1981 and 1985-86. There was a bounceback in 1986, but since 1989 there has been little further real growth, and the indexes show present real disposable earnings to be no higher than in 1980/81. Indeed lower income quintiles are still (March 1991) significantly below 1980/81 levels, and it is only the highest quintile of earners for which the index is several per cent higher than in 1980/81, the base-year. This last group has benefited in particular from the tax-scale 'flattenings' of October 1982 and October 1988.

4   Shifts in Relative Income Positions

4.1   Trends in Household Income Averages

Table 3 shows average incomes for selected household types, and Table 4 the ratio to the all households average. Briefly, for the six-year period as a whole

- **Market incomes** fell relatively for pensioner couples, and for sole parent households, but were stable for pensioners living alone. They rose quite significantly for couples with children, particularly for the older subgroup of such households.

- These patterns by and large carry through to **disposable incomes**, though of course the effect of benefits and taxes is to improve the relative position of low-income households and lower that of higher-income households. The main exception is for sole parent households. For these there was a fall in relative market income, which occurred between 1985/86 and 1987/88. However, in terms of total and disposable income, this is reversed to show a significant rise.

More detailed data for sole parent households, not shown here, suggests that income from earnings and self-employment fell on average. However this was more than compensated by increases in the number receiving Domestic Purpose Benefit (DPB) and in the level of DPB, and also by increases in the amount of family assistance received by sole parents in the workforce, through Family Support and GMFI. (It should be mentioned that taxes, plus Family Support and GMFI are all imputed from household survey information, not measured directly.)

The fall in over-60 couple's market income results from a fall in Other Regular Income, mainly pensions. This result is contrary to expectations, given also that income from interest and dividends would be expected to have increased in this period. The presence of 'outlier' households in the 1981/82 survey, of considerably above-average income, seems a likely explanation, given the results discussed below for trends in median household incomes.

4.2   Trends in Household Median Incomes

Medians, for market and disposable income, are displayed in Table 5. A comparison with the means in Table 4 shows that generally trends in the two tables are similar, although with pensioner couples now showing little relative change from 1981/82 to 1987/88, an intuitively more plausible outcome.

Data on median incomes is available also for 'couple with dependent children' households, by number of dependent children. These are given in Table 6.

One-child families have lower incomes on average than larger families, presumably because such families are younger on average. For all the family sizes given in the

Table 3: Average Household Incomes

		Single person 60+	Couple, female >60	Couple & children, female <35	Couple & children, female >35	Couple & children, all	Sole parent	Total
Market income:	$							
1981/82		2524	7729	19017	26321	22922	8313	17863
1985/86		3454	7722	27139	38634	33285	11563	24873
1987/88		4157	9412	35116	50313	43241	12613	30141
Total income:	$							
1981/82		7296	15504	19833	27680	24028	12495	20271
1985/86		11014	19880	28527	40421	34886	17023	28622
1987/88		12962	24033	37505	52897	45734	25024	35797
Disposable income:	$							
1981/82		5927	12364	14380	19883	17322	10416	14956
1985/86		7972	14515	20384	28635	24795	14192	20663
1987/88		10311	18931	27999	38934	33845	19952	27004

Note: Bursaries included in market income.

Table 4: Ratios to all Households Average

		Single person 60+	Couple, female >60	Couple & children, female <35	Couple & children, female >35	Couple & children, all	Sole parent	Total
Market income:	%							
1981/82		14	43	106	147	128	47	100
1985/86		14	31	109	155	134	46	100
1987/88		14	31	117	167	143	42	100
Total income:	%							
1981/82		36	76	98	137	119	62	100
1985/86		38	69	100	141	122	59	100
1987/88		36	67	105	148	128	70	100
Disposable income: %								
1981/82		40	83	96	133	116	70	100
1985/86		39	70	99	139	120	69	100
1987/88		38	70	104	144	125	74	100

Table 5: Median Household Incomes

		Single person 60+	Couple, female >60	Couple & children, female <35	Couple & children, female >35	Couple & children, all	Sole parent	Total
Median of:					$			
Market income	1981/82	1029	2718	17360	24194	20488	4708	16028
	1985/86	1093	3102	24045	34996	29299	7737	21641
	1987/88	1527	3164	31292	48484	41102	6533	26236
Disposable income	1981/82	4206	9012	13917	18700	16094	8949	13503
	1985/86	5701	12364	19075	26522	22817	13025	18444
	1987/88	7672	15822	25793	38039	32331	18586	23675
Ratio to all Households					%			
Market income	1981/82	6	17	108	151	128	29	100
	1985/86	5	14	111	162	135	36	100
	1987/88	6	12	119	185	157	25	100
Disposable income	1981/82	31	67	103	138	119	66	100
	1985/86	31	67	103	144	124	71	100
	1987/88	32	67	109	161	137	79	100

table the same results hold. Namely, all improved their position significantly in market income terms, on average, and these changes in market income clearly explain most of the shifts in relative disposable income.

5 The Causes of the Relative Income Shifts

The shifts in average income of each household type from 1981/82 to 1987/88 can be attributed to shifts in market income, or in benefits, or in taxes. Table 7 shows the relative importance of each factor. This is after converting the relevant figures (from Table 3) into constant 1989/90 dollars.

Thus, for example, single pensioner households underwent a loss in real terms, of about $1,550 in disposable income between 1981/82 and 1987/88. About $920 of this is accounted for by a fall in market income, and a further $680 by a reduction in welfare benefits. Offsetting these is a gain of about $60 from lower taxes.

Table 6: Median Household Incomes

			Couple with:	
		1 child	2 children	3+ children
Median of:			$	
Market income	1981/82	16043	17932	18006
	1985/86	24929	26685	25328
	1987/88	33399	37006	37280
Disposable income	1981/82	13127	14333	14390
	1985/86	20127	20812	20799
	1987/88	27391	29068	29623
Ratio to all Households			%	
Market income	1981/82	100	112	112
	1985/86	115	123	117
	1987/88	127	141	142
Disposable income	1981/82	97	106	107
	1985/86	109	113	113
	1987/88	116	123	125

Table 7: Sources of Changes in Real Disposable Income 1981/82 to 1987/88

1989/90 dollars	Single person 60+	Couple, female >60	Couple & children, female <35	Couple & children, female >35	Couple & children, all	Sole parent	Total
Change in:							
Market income	-921	-6533	-2688	-1808	-2217	-4240	-5709
Total income	-1603	-7337	-1815	-1916	-1869	418	-4695
Disposable income	-1547	-6113	-414	-327	-367	-668	-2801
Contribution, to change in Disposable Income, of:							
Change in market income	-921	-6533	-2688	-1808	-2217	-4240	-5709
Change in benefits	-682	-804	872	-108	348	4658	1014
Change in taxes	56	1223	1401	1589	1502	-1086	1895

All the tabulated household types suffered a loss in average market income in real terms. However benefit assistance to families in general increased, while that to pensioner households fell. (It should be mentioned that, in addition to increases in family assistance, this outcome reflects the practice of indexing National Superannuation to changes in average earnings, at a time when real wages were falling as a result of the 1982-1984 prices/wages 'freeze'). The positive contribution of income taxes to the change in disposable income means that personal taxes in real terms fell.[3] This was in part because of the partial re-basing of the tax system on indirect taxation (GST).

Benefits and taxes are of some importance therefore in explaining the improvement in 'family' incomes relative to those of pensioners. However it is also clear, from Tables 3 and 6 in conjunction with Table 7, that changes in market income between 1981/82 and 1987/88 make in general the most important contribution to changes in disposable income.

6   Conclusions

Shifts in relative income position of different household types were examined over the period 1981/82 to 1987/88. This was to see whether these shifts could be explained as due mainly to shifts in relative market income (in particular income from employment), or instead by government redistribution through taxes and benefits.

The answer is that shifts in market income explain most of the changes which have occurred. In particular, households consisting of couples with children improved their position relative to the general average because they received relatively more market income. This occurred probably from a combination of three causes: an increase in the number of earners on average in such households, more rapid income growth for principal income earners, and because such households suffered less from increased unemployment than other household types. In particular it is evident that the number of two income families has increased.

Benefits and taxes served mainly to narrow the gaps in disposable income between different household types, rather than changing trends in relative incomes over time, though there is some other evidence suggesting that upper income households improved their position particularly after the personal tax changes of October 1988. There is one exception to this conclusion. Namely benefit payments appear to have reversed the fall in average market incomes of sole parent households between 1985/86 and 1987/88. Perhaps too much should not be read into this because of the possibility of the estimates being affected by survey error. However it is at least

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3.   The Domestic Purposes Benefit payable to non-earning sole parent households was, from October 1986, 'grossed-up' to include PAYE tax. This explains the negative contribution of taxes for such households, in contrast to other household types. It also explains part of the increased contribution of benefit income to sole parent households shown in Table 7. It should be noted that National Superannuation was paid on a 'gross' basis throughout.

partly explainable by sole parents in the workforce, on low earnings, benefiting from the introduction of Family Support.

Summing up, and perhaps contrary to expectation, families with children in the 1980s improved their relative economic position, in terms of disposable income. Pensioners, it seems, held their own. This of course is in relative terms, in a period of falling real incomes. Clearly, other household types are likely to have done worse. The fact that families in general have done relatively well does not mean that all families have done as well.

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Inequality and the Wheel of Fortune: Systemic Causes of Economic Deprivation

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1 Introduction

The proponents of state provision of welfare services have been forced to ward off opposition to the concept since the beginning of the century. The poor economic environment which has persisted now for well over a decade has placed the system under further strain; it faces not only progressively dwindling financial resources but also a rising tide of political opposition and philosophical challenge to its very foundations. The opposition to an extensive welfare system argues its case primarily in terms of economic imperatives, typically within an 'economic rationalist' framework, although there is also a more muted opposition based on purely moral grounds.

An emphasis on the importance of equality of opportunities, and even acceptance of the notion of a social duty to achieve such equality, can be found even among ardent opponents of significant public intervention in economic affairs. In contrast, interest in equality of outcomes is much less common. Underlying this reluctance to go beyond equality of 'basic opportunities' often is a belief that once equality of basic opportunities has been secured, inequality of earned income (as distinct from income accruing to ownership of property) will primarily reflect differences in innate ability and free-choice, with any remaining inequalities reflecting the influence of purely random factors. The rationale is that the profit motive guarantees each employee a reward for merit[1]; remaining differences in economic welfare are the result of blind luck.

The present paper focuses on two specific questions: (i) is the 'economic rationalist' defence of a residual system of welfare logically persuasive; in particular, does it provide a convincing analytical account of the distributive properties of an unfettered market system, and (ii) can an economy which is accompanied by only a minimal

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1. The question of whether or not merit is the appropriate criterion to distribute income must to be addressed as a separate issue.

system of welfare generate economic outcomes which are consonant with what appear to be widely shared basic concepts of social justice?

2   The Profit Motive, Merit and Prejudice

The term 'economic rationalism' is used to describe a heterogeneous group, only some of whom are likely to be die-hard economic libertarians. Nevertheless, as a social phenomenon economic rationalism has shifted the agenda of economic policy towards the libertarian non-interventionist end of the spectrum. The inspiration appears to be a particular economic concept of what constitutes a 'free market' system, centring on the analytical notion of 'perfectly competitive market equilibrium'.

This notion has a certain seductive quality: it embraces a rule of conduct which rewards individuals according to merit; it also promises that vigorous pursuit of profit maximisation guarantees to workers rewards according to merit. The first quality appeals to a fairly widespread notion of justice, whilst the second claims to offer a mechanism which both implements and safeguards a system of reward according to merit. Along with this is the promise, consistent with a widely shared belief, that the perfectly competitive system ensures all individuals equal opportunity to display, and successfully convey, their true merit.

Yet, for individuals to successfully convey their merit to employers and management, these latter must be able to perceive them through untainted spectacles, free of the distorting influences of social and cultural prejudice. That is, they must make a correct objective assessment of each employee, and having made this assessment they must defy whatever cultural and social preferences they may have. In other words, the issue is two-fold: (i) the decision makers must be free of cognitive limitations (which would allow prejudice to interfere with observation), and (ii) they must have a compelling interest in choosing strictly on merit, however strong their social or cultural prejudice may be.

A large number of economists, Milton Friedman amongst them, are reluctant to speculate as to whether or not people wish to consciously discriminate against particular members of society. Instead, the libertarian view appeals to the profit motive, positing that in a perfectly competitive regime the survival imperative will compel profit maximisers to turn an absolutely blind eye to whatever desire they might have to engage in discrimination (Friedman, 1953).

In a hypothetical regime where there is no discrimination at the outset and the market is in perfectly competitive equilibrium, an employer who seeks to discriminate by rejecting the best employee in favour of another with more appealing social characteristics will destroy the viability of the enterprise. This occurs because in perfect competitive equilibrium each firm, by definition, is making the minimum profit which provides a return to equity no higher than the bank rate of interest. Indeed, in such a putative state of affairs, the sheer desire for survival will successfully militate against a deviant discriminating individual; discrimination

could be introduced only in a well-coordinated fashion (or by orchestration from above, as in the Third Reich).

Thus far the logic of the argument is impeccable. What does not follow, however, is the proposition that the profit motive is sufficient to bring about the demise of discrimination in an economy where it already exists on a substantial scale. The consequences of discriminatory conduct, whatever they may be, are then built into the cost structure, and so survival is not at stake. Instances of non-discriminatory practice may exist, but there is no systemic force compelling others to follow unless they reach a critical mass where they can exert serious competitive pressure on the discriminators. The circumstances which would bring about such a critical watershed would depend on both the economic and cultural environment. This is an issue which hinges on the process of interaction between social culture and the economy. Since economics tends to ignore such interactions, the concept of the perfectly competitive equilibrium does not offer a fruitful frame of analysis in this case.[2]

The argument above has left intact an implicit assumption in the libertarian's analysis which postulates that discrimination manifests itself only through conscious free-choice. In other words, the underlying premise is that decision makers always assess people accurately in a manner untainted by perceptual bias. Cultural prejudice enters the picture only in a second phase where the rewards for profit maximisation are carefully weighed against the 'pleasure' derived from discriminating. Obviously, this assumes away the more fundamental, subtle and highly insidious manner by which social prejudice permeates our culture, and the very manner in which we perceive reality. It ignores, in other words, the limits of human cognitive capacity.

In conclusion, economics is correct in pointing out the tension, indeed conflict, between the profit motive and social prejudice. The resolution of this conflict, however, is a complex issue which depends on a whole set of social and economic circumstances, and it is not necessarily resolved in favour of the profit motive.

3 Cognitive Limits, Prejudice and Hierarchical Employment Structures

3.1 Prejudice, Cognitive Capacity and Reward for Merit

The limits to human cognitive capacity, and the inability to form social knowledge significantly free of social and cultural prejudice, must form an integral part of any systematic intellectual attempt to explain the distributive outcomes of the modern

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2.   If we shift ground from the notion of single-minded profit motive as a survival imperative to a definition of it as an individual cultural and psychological phenomenon which is shared by the vast majority of society (a definition, as I mentioned above, that most economists are reluctant to adopt), we may logically deduce that profit maximisation can seriously undermine discrimination. This is a tautological statement. It simply says that where cultural prejudice has given way to the profit motive, the profit motive dominates. This does not establish the ability of profit maximisation to reduce or eliminate prejudice.

socio-economy.[3] This is particularly important in a system which attempts to reward merit. In addition, the unquestioning acceptance of extensive and well-established hierarchical structures in the workplace seriously restricts the scope for rewarding according to merit. Finally, the combined effects of cognitive limitations, cultural prejudice and the pervasive presence of hierarchical structures severely limit the influence of purely random variations on the distribution of earned income, even when we focus purely on labour income.

A system of remuneration which rewards individuals strictly according to merit is predicated on the ability to accurately assess merit, the only tolerable error being the a truly random one. Since merit is often not directly observable, it is typically gauged indirectly, relying on a range of indicators believed to be correlated with productive capacity, suitability for the job, and the like.

Social characteristics of employees play a significant role as indicators of their promise. It is, indeed, well known and extensively documented that race, gender, class and a host of other social characteristics of an individual play a significant role in determining their perceived merit.[4] Propositions which play down the influence of these factors assume not only a significant degree of open-mindedness on the part of decision makers, but also that they have an efficient learning capacity. That is, they assume that individuals and societies are not only keen to identify true merit, but also that they are capable of generating the requisite information and possess the intellectual capacity to properly employ it. This assumes away the possibility that deep-seated cultural prejudice is strongly sheltered by limited cognitive capacity.[5] It also ignores the fact that when the workforce is highly segregated the opportunities for learning, that is for generating requisite information, are meagre.[6]

In conclusion, what makes the prospects of systematic award according to merit irrespective of the social characteristics of an individual particularly bleak is the inevitable interaction between socio-cultural prejudice and cognitive limits in a

3. Leading economists have paid increasing attention to the implications of cognitive dissonance for a range of economic issues. For instance, Akerlof and Dickens (1982: 309) observe that '... persons who have made decisions tend to discard information that would suggest such decisions are in error because the cognition that the decision might be in error is in conflict with the cognition that ego is a smart person'.

4. e.g. Jennett and Stewart (1987), Goldin (1990). For a comprehensive survey of the economic analysis of labour market discrimination see Marshall (1974). Also see Gill (1991).

5. Discussing the need to incorporate the consideration of cognitive dissonance into economic analysis, Akerlof and Dickens say: 'The cognitive dissonance model not only predicts systematic differences in **interpretation** of given information but also systematic differences in **receptivity** to new information according to preferences [emphasis added]'. (Akerlof and Dickens, 1982: 309).

6. Spence's (1974) path breaking work on **'market signalling'** provides a comprehensive analytical argument about the robust nature of racial prejudice despite the presence of a strong profit motive and market competitiveness. The core of the argument is that information deficiencies tend to entrench discrimination.

highly segregated environment. The potential for merit as a path to equality is seriously limited because merit itself is not independent of social inequality.[7] That is, in a society where social and cultural prejudice prevails, social affiliation becomes a dimension of merit itself.

3.2 The Hierarchical Mode of Organisation and Reward According to Merit

The modern socio-economy forms a complex web of tasks defined not only along a horizontal plateau of differentiated economic activities carried out by different individuals, but also along a vertical axis which defines their rank order in terms of socio-economic status. Some maintain that hierarchical structures at the workplace, and the accompanying pay structures, reflect the structure of the workforce in terms of the workers' intrinsic merit. Let us set social prejudice aside for the moment; is it truly possible to attain an earning structure which genuinely reflects the structure of merit in the population in an environment in which a well-defined and fairly rigid hierarchical structure is unquestionably accepted? Suppose the access to each of the slots in the hierarchical complex were to be determined strictly according to merit, does it necessarily follow that there will be a close match between merit and reward (in terms of the combined value of pay and social prestige)?

To be a genuine reflection of merit, the hierarchical structure should be shaped by the structure of merit alone. Very unequal work performance should result in a very unequal and elaborate hierarchical structure, whereas where people are more equal in terms of merit, the hierarchical structure should adjust itself accordingly. In reality, however, both hierarchical organisational structures and the accompanying pay levels remain rather rigid. They are accepted as independent entities, assuming their particular form independent of the comparative pattern of merit of individuals.

Access to jobs within relatively rigid structures must be rationed. In principle, therefore, it is always possible that only a subset of people equal in terms of merit will occupy identical occupational positions. This, in turn, suggests that even if the queue to better paid and more prestigious jobs is formed strictly in terms of merit, the structure of pay and social prestige conferred by the job hierarchy does not necessarily reflect the structure of the population in terms of merit.[8]

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7. The principle of reward for merit is sometimes invoked as a moral imperative, because it affirms the rights of individuals not to be disabled by dint of group affiliation. That is, it is often believed to be an effective bulwark against labour market discrimination. Nevertheless, it is a morally problematic concept. Not only does it deny the consideration of needs, but it really promises to remove only one source of inequality - the inequality of access according to group affiliation. More fundamentally, merit itself is not a measure of the absolute good but rather a measure of a quality which is an amalgam of prevailing social values, and market scarcity. This does not necessarily impart to it compelling moral content.

8. Similarly, Thurow's (1972) job-competion model builds on the proposition that the hierarchy of jobs structures is a well defined independent entity, with individuals being ordered in a 'queue' according to rules defining access.

3.3   The Lasting Consequences of Misfortune

This paper focuses on the factors which determine the economic fortunes of those who depend on the income they earn as workers. The provision of equality of basic opportunities is presumably designed to minimise the influence of inequality in the ownership of wealth on the distribution of wage and salary income. The central argument of the paper is that even if these influences are successfully blocked as far as the provision of educational opportunities during the formative years is concerned, there will remain class, gender, race and other social factors which will systematically influence the individuals' fortunes in the labour market, and significantly so.

Pure luck as such plays a much more limited role, not only because of these systematic influences but also because in the labour market job progression is structured. The labour market has a well established highly elaborate structure of job hierarchy which defines not only a system of 'prizes' to be allocated in accordance with estimated merit, but also a system of stepping stones which crucially determine the height to be scaled in the remainder of the journey up the ladder. This is so because jobs are not merely prizes for an already demonstrated merit, but also entry tickets which ration access to training opportunities and improved opportunities to demonstrate ability. Hence, although a random influence on the size of the prizes allocated to a group of people intrinsically equal in merit does exist it is confined to the first round of prize allocation. Since prizes are also stepping stones determining scope for advancement in the next round, what is initially a matter of pure luck takes on a new meaning. What initially is the result of a purely random event is subsequently treated as an indicator of the individual's true innate ability. Success brings further success, and misfortune begets misfortune.[9] Thus, for instance, unemployed people, even when they are purely the victims of bad luck, run the risk of being perceived as inferior workers.[10] In other words, they are often treated as if unemployment had carefully separated the wheat from the chaff. Here again, cognitive dissonance plays a crucial role in forming a 'path-dependent' set of opportunities.[11]

The combined effect of hierarchy, untested preconceptions, significant workforce segregation and the limits to cognitive capacity inevitably load the dice against well-defined socio-economic sub-sets of the workforce.

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9.   Thanks are due to Bettina Cass for drawing my attention to the fact that Walzer (1983) makes a similar observation when he discusses the 'accumulation of advantage and disadvantage' which accompanies the use of the principle of merit in the labour market.

10.   This proposition is also supported by Stiglitz's (1987) emphasis on the dependence of [perceived] quality on price. Unemployed workers tend to be perceived as poor quality workforce when compared to employed workers, because the latter fetch higher prices for their labour.

11.   For the notion of path-dependence in the conduct of economic structures see David (1988).

3.4 Bearing the Brunt of Economic Change

Structural change, the commitment to place inflation ahead of unemployment and the exposure of domestic production to more vigorous foreign competition all have well defined and highly predictable distributive consequences.

Placing price stability ahead of employment stability, as we have done for more than a decade now, has generated a disproportionate burden on a well-defined subset of the population. An x per cent level of national unemployment does not present every individual with an equal chance of losing their job. Neither have we seriously pursued avenues such as job-sharing and reduced hours of work to distribute the impact of a downturn more equally. Instead, an increase in the national level of unemployment has meant an almost equal increase in job losses.

Similarly, the distributive impact of structural change, whether autonomous or induced from above by state policy, is inherently very uneven. Micro-economic reform and tariff reduction have typically been justified in terms of the economic benefits which would flow from them to the community at large, yet the brunt of change falls on specific economic sectors, geographical areas and occupational and demographic groups. Prime among the losers are middle-aged blue collar workers in the manufacturing industries who possess few transferable skills. For them structural change involves loss of accumulated seniority benefits and firm-specific skills, and little opportunity to acquire new skills. The inevitable result is often a failure to sustain the level of earnings and occupational responsibility hitherto enjoyed, or a prolonged period of unemployment.[12] This is a highly predictable result. Employers, rightly or wrongly, find young new entrants to the workforce more malleable, and certainly on average, more able-bodied. Thus, older workers, once unemployed, are placed at the end of the hiring queue. It is not surprising, therefore, that although the young are most prominent among the unemployed in general, older people are more numerous among the long term unemployed. This is a pattern one should reasonably expect to find in an unfettered market exchange system.

While managers placed at the higher echelons of the pay hierarchy are typically rewarded with incomes which are sufficiently high to permit the accumulation of substantial financial assets, workers at the bottom levels of the socio-economic hierarchy never have adequate discretionary income to permit accumulation of sufficient capital to provide full (or even partial) existence on interest and dividend income.[13] It is incorrect, therefore, to suggest that the recent increase in

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12. Available empirical studies show that those who are fortunate enough to find new employment often experience a permanent decline in economic well being (Curtain, 1985 and 1987). See also Gill, 1989: 462-5.

13. Indeed, capitalism would run the risk of ceasing to be viable if large sections of the workforce owned capital at a level substantial enough to fully support their existence. An economy cannot productively exist with a substantial rentier class, unless it legislates for all workers to be employed productively.

unemployment among managers places this class on a par with the mass of much lower-paid production workers.

4 Distributive Consequences of Unequal Purchasing Power

Thus far the discussion has focused on the rationing of access to employment. I would now like to turn to the product and services market, where market bidding provides a rationing mechanism which allows those who possess disproportionate purchasing power to secure preferential access to goods or services, even to the point of denying access to less well endowed individuals. This is particularly pertinent in an era in which the 'user-pay' principle is being applied increasingly. A persistent widening of the income gap between the low-paid and the rich can generate even larger gaps in consumption levels. In addition, where goods and services vary in quality, the better off can monopolise access to the best quality.

Where the supply of a given good is abundant, this cannot occur. However, when the supply is inherently limited and demand by the better off increases, prices will increase and a substantial proportion of the increase in this demanded quantity will be achieved by sharp decline in the quantity demanded by lower income people, with little expansion in the aggregate supply. Furthermore, with sufficiently large disparities in elasticity of demand (the price elasticity of demand of the low-paid being much larger than that of the wealthy) a very modest price rise can bring about a relatively large redistribution of quantity. Alternatively, if the price elasticity of demand for a particular good is very low for both high and low income people, significant bidding activity by the better off would bring about large price increase. In this case low income people will incur only limited reductions in quantity demanded for the particular good in question, but will find themselves with much diminished purchasing power to buy other goods and services. For instance, for many middle to low income people the rise in the level of mortgage payments and housing rents has meant a sharp reduction in access to other consumption goods rather than a reduction in the quantity of housing services consumed.

In conclusion, the stronger the withdrawal of demand by the low-paid in response to a given price increase, the smaller the increase in price that the wealthy will have to pay to successfully bid away a given amount. Where bidding by the better off brings in its wake substantial price rises the sharp withdrawal in demand is displaced to other consumption items.

Housing, health and education services are obvious examples of this phenomenon. The location of these services is important, and hence their supply is inherently inelastic. When we add the dimension of quality, the potential for their redistribution away from low income earners becomes even more acute. Furthermore, the segregated nature of housing means that deprivation of access does not simply imply a shift into smaller, less attractive accommodation in a given locale, but rather geographical dislocation. In the last two decades this has meant not only a loss of community ties, but also loss of access to the preferred job market,

and mobility into regions which are less well endowed with health and educational amenities.[14]

With dwindling tax revenues and the ascent of the user-pay principle we can expect to witness progressive redistribution of health and education resources away from low income people to the better off. Recent commercial developments in the provision of medical services certainly suggest that the potential for such redistribution is substantial. Whilst the incomes of the majority of wage earners have been stagnant, if not strictly deteriorating in real terms, incomes at the upper end of the income scale have been steadily growing. This and diminished public expenditure on health services have indeed been accompanied by an increase in the share of medical services provided to those with income sufficient to purchase services at the quantity and quality of their choice. There has also been a progressive shift away from public hospitals towards exclusive medical institutions providing a range of luxury services and, most importantly, no waiting time. In contrast, those dependent on the public hospitals must tolerate long delays.[15] These are all signs of the emerging segregation in the health system. With further reduction of public expenditure and diminished real incomes at the lower end of the pay scale, a continuation of this diversion of quality and quantity of health care to those who can pay is a serious possibility. The allocation of education services runs the same risk of progressive diversion of resources away from low income earners.

It must be emphasised that the diminution of public expenditure is only one factor underlying this evolution. The primary role is played by the growing inequality in real incomes, where those with low incomes have experienced a sharp deterioration in discretionary income while profit margins and salaries at the top end of the scale are appreciating. This becomes particularly poignant when the increases in the inequality of income bring about much larger increases in the inequality of consumption in general, particularly of vital goods and services. Here again, inequality feeds upon itself.

5 Moral Imperatives

The fundamental subject of this paper is the distribution of scarce resources, be they jobs and pay levels or access to basic services such as housing, education and health. In theory, 'equality of opportunity' would suggest that the distribution of jobs, health and educational resources should bear no systematic relationship to either the wealth or social affiliation of the individual. In practice, as this paper argues, we have a number of mechanisms for ranking individuals and groups which are related to their socio-economic characteristics. The presence of such systematic relationships

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14. See Yates (1989) and Yates and Vipond (1991) for an extensive discussion of inequality of access to housing in Australia.

15. On barriers to accessibility to health care services see Macklin (1990). For a very comprehensive analysis of the equity issues which are involved in the rationing of health care resources see McClelland (1991).

establishes a case for the non-residual welfare state as a matter of basic social moral duty.[16]

This should not be interpreted as suggesting that a non-residual welfare state would or could remove all breaches of social justice inherent in the current socio-economic structure. Neither should the welfare state limit its intervention in the allocation of resources to situations where there exist systematic relationships between wealth and social affiliation on the one hand and access to jobs, decent housing, health and educational resources on the other.[17] The focal point of this paper, rather, is on the presence of such systematic relationships and on the consequences which flow from this observation for social policy.

So far in this paper it has been treated as self-evident that it is a violation of fundamental principle of justice if wealth, race and gender systematically influence access to job, health and educational services. In fact, there exists literature on this subject, spawned in part by the rebuttal to the neo-libertarian critique of the welfare state. As Plant (1985) points out, for the neo-libertarian such systematic patterns of distributive outcomes have no ethical implications for social policy, certainly not as a matter of citizens rights. This is so because the neo-libertarian identifies a breach of citizens rights only where freedom is diminished as a result of an action guided by an intention to restrict the freedom of other individuals; and since the distributive outcomes of the market system are brought about by the net effect of acts of free exchange between individuals, this philosophical position argues, no intention to restrict the access of others can be imputed to any of the participating individuals. Hayek (1967, 1976) arguably the most eloquent protagonist of the neo-libertarian position, does not deny that the 'free market' generates a great deal of suffering for some people, but in the absence of a deliberate intent to cause misfortune, he insists, welfare can be treated only as a gift, not as social right. Plant offers an eloquent and incisive critique of this philosophical view point. He argues that intent (to restrict freedom) alone offers a very inadequate moral foundation for a theory of social justice. The notion of breach of justice, Plant argues, must be expanded to encompass cases where socio-economic misfortune is foreseeable and its pattern predictable, regardless of the purpose guiding the actions of agents who individually or collectively give rise to the undesirable outcome. Social systems known to be generating undesirable distributive outcomes in a predictable and well-defined pattern can therefore be deemed to be breaching basic tenets of social justice.

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16.   Although the bulk of economic analysis diligently shuns ethical issues a significant number of prominent economists have maintained interest in the subject of ethics and economics. The elimination of ethics from economic analysis, Sen argues, limits the scope not only of welfare economics, but also of 'predictive economics'. That is, it impairs the ability of the economists to properly predict the economic conduct of individuals: 'The jettisoning of all motivations and valuations other than the extremely narrow one of self-interest is hard to justify on grounds of predictive usefulness, and it also seems to have rather dubious empirical support' (Sen 1987: 79). David Collard (1978) made a similar observation in his seminal study *Altruism and Economy: a Study in Non-selfish Economics.*

17.   The concept of social justice is examined on a broader canvas by Cass (1991).

Arrow (1984) offers an interesting critique of Nozick's (1974) entitlement theory of justice whose core, Arrow points out, is an '...attack on all patterned views of distributive justice...' (Arrow, 1984:175). This critique also puts forward an argument in support of the welfare state as an agent of social justice. Whereas Nozick maintains that society must refrain from redistributing initial property (existing prior to any act of exchange), Arrow emphasises that any such property in fact owes its (market) value to the very existence of society. Had the same assets been owned in a Crusonian isolated existence, they would have had little, if any, value. That is, it is the very existence of society which makes scarce resources valuable. Hence, Arrow says, '...there exists a surplus created by the existence of society as such which is available for redistribution' (Arrow, 1984: 187).

This proposition hits at the core of Nozick's defence of property rights, because, Arrow argues, Nozick seems to suggest that society must restrict itself to redistribution of 'gains from trade', refraining from redistribution of the initial property entitlements (Arrow, 1984: 181, 187). If indeed, Nozick accepts redistribution of gains from trade then Arrow's argument turns Nozick's position on its head, exposing a flaw in the internal logic of the defence of absolute property rights. Fundamentally, Arrow emphasises that individuals owe much of what they possess by way of economic welfare to the very existence of social organisation; this in turn limits their right to reject the principle of distributive justice in terms of absolute rights over property.

In summary, Arrow and Plant both expose crucial areas of weakness in the neo-libertarian argument, suggesting, in effect, that the libertarian ethical tenets themselves may, after all, support a much more comprehensive provision of welfare than admitted by the professed position. In the same vein, it could also be suggested that the economic rationalist idealisation of the perfectly competitive market and its distributive outcomes (when supplemented with only a residual welfare system) reveal an unadmitted quest to achieve certain patterns of distributive justice - a pattern which eliminates any systematic influence of socio-economic affiliation on the distribution of wage and salary income.

6 Policy Implications

The central proposition of the present paper is that inequality tends to feed upon itself. The particular nature of this self-enhancing process has well-defined implications for social welfare policy - it rules out certain options, and demands that the welfare system should assume a particular form. Specifically, a major implication is that cash transfers offer limited scope for redress of inequality (unless they assume a radical dimension which goes far beyond what is usually contemplated). Rather, what is called for is a policy 'structural involvement' in both the product and the markets.

We must distinguish between large scale redistribution of income, involving radical reductions in the degree of income inequality, and the very limited redistribution of income which occurs through cash transfers provided by benefits and pensions or a

'guaranteed minimum income' scheme. As discussed above, access to vital resources (housing, health and education) is severely affected by the fact that these are inherently limited in supply, especially when we take into account quality as well as quantity. With sufficiently low elasticity of supply, and a strong desire on the part of the better off to ensure substantial access to these resources, access for lower income earners can be radically reduced or even eliminated. To reverse the process, cash transfers would need to be on a scale inconceivable within a capitalistic society.[18] Therefore, to secure access for the low-paid, the supply of these resources must be adequately elastic and at an affordable price. This cannot be achieved other than by a commitment to public provision. This also rules out the blanket use of 'user pay' principles. If a price is charged it would have to be linked to ability to pay, not to cost of production.[19]

The comparative advantage of public provision lies in its ability to provide **targeted** cross-subsidisation. This implies a redistribution of income (via the taxation system) which is focused on the provision of a few goods (and services), to a sub-set of individuals.[20] As important is the fact that public provision can provide goods specially tailored to the needs of disadvantaged groups; these often do not offer adequate profit incentive to elicit provision within the private sector.

Structural involvement in the labour market would share some of the above characteristics, but there are important differences in the rationale underlying the need for public initiative in this area. A major contributing factor is the fact that, for the individual, work is a multidimensional entity, where the provision of purchasing power is one of a number of functions. In addition to providing the individual with purchasing power, work affects self-esteem, the sense of social affiliation, and individual fulfilment in general. Consequently, failure to secure fair access to jobs cannot be simply compensated by cash transfers. When soaring national levels of unemployment bar people from access to jobs simply because of their age (recent reports show that the danger zone is entered at the age of 40) individuals are gripped with the feeling that they have been cast off from society - cash transfers, though essential for sheer survival, add insult to injury. Workers who have been displaced

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18. Christine Whitehead (1989) has eloquently demonstrated the limits to cash transfer schemes in the housing market when evaluating Margaret Thatcher's rent subsidy scheme (this was brought in when the government was dismantling the Council Housing sector). Indeed, as Whitehead tells us, the Treasury had warned the Prime Minister that her policy (a promise to continuously increase subsidies in line with market rent levels) was unaffordable. However, ideology prevailed - the Prime Minister paid no heed.

19. This paper has not made any explicit reference to needs as an allocation criterion. However social justice criteria which are altogether blind to needs are exceedingly narrow. Public provision of services has an advantage over private provision in terms of its capacity to ration according to need. Here again, to be effective subsidisation of private acquisition will often need to be fairly generous.

20. Although the differences between targeted and global provision are important, these are beyond the scope of the present paper.

by technological change, or simply because they had been employed in a declining sector, share the same experience, even when national unemployment is modest. They find themselves at the bottom of the occupational ladder simply because they have neither the financial means nor the emotional strength to embark on a training program which would enable dignified occupational mobility. Indeed, experience has shown that suitable training facilities, which may require only relatively modest facilities, are seldom available within the private sector (Shultz and Weber, 1966). Here again public sector provision could and should provide services tailored to the needs of particular disadvantaged groups.

As discussed above, cognitive factors tend to exacerbate the misfortune originally triggered by purely random events. Unemployed workers, regardless of the reasons leading to job loss, run a serious risk of being deemed inferior simply because of the cognitive limitations and information barriers faced by employers. In other words, deliberate intention to discriminate against members of a particular social group may be absent, and yet the social pattern of access to jobs would still have a highly predictive pattern, because social prejudice plays a major role in the formation of information. As Plant (1985) eloquently argues, such systematic outcome patterns form a morally compelling argument for public initiative. Affirmative action in employment, and allocation of disproportionately large educational, training and retraining resources for members of such groups, can all be readily justified. Indeed, affirmative action offers not only a remedy for access, but it also has the potential to generate a large pool of practical evidence which should begin to undermine some rigid preconceptions about the productive capacity of women or members of ethnic minorities.

Structural involvement implies public provision of specific services of particular quantity and quality as a continuing commitment. This should be undertaken without the apologetic tone which accompanies the notion of 'intervention'. The major barrier is neither technical nor economic, but political-cultural. This is so because without the broad support of the community **structural involvement** will remain too marginal to be truly effective. **Structural involvement**, however, is not to be understood as the panacea for all social justice ills. The most it can offer is a partial redress for the problems which this paper has highlighted.

7   Conclusions

Income inequality is a persistent and pervasive phenomenon, and it seems clear that we have neither the political will nor the organisational capacity to bring about a full-fledged egalitarian society. Nevertheless, we do share some concerns about the extent of inequality and the forms that it takes. Whilst concern about inequality of outcomes is certainly not shared by everybody, concern for equality of opportunity is more widely held. Underlying this is the belief that individuals should not be handicapped by their class, race or gender affiliation.

Setting aside wealth, this suggests that the distribution of individual's labour incomes should have a systematic relationship only with the innate abilities of individuals and

their occupational preferences, with any remaining differences reflecting pure chance.

The paper argues that in reality other systematic effects come into play, and that the influence of pure chance is seriously limited. The combined effect of social prejudice and the inherent limitations of human cognitive capacity can entrench labour market discrimination, even when the intent to discriminate is altogether absent. Where income inequality is substantial, inequality in consumption, particularly due to the supply characteristics of housing, health and education services, can lead to a situation where acute economic deprivation is experienced by a significant proportion of those in full-time employment. In addition, structural change (autonomous or induced by policy), macro-economic stabilisation and micro-economic reform policies all generate well-defined patterns of job and earnings loss, with specific socio-economic groups bearing the brunt of change.

The presence of such systematic distributive patterns justifies substantial public initiative. The concept of welfare provision, the present paper argues, must be extended beyond the minimalist domain. This is implied not only by the moral position of those who seek more equal distributive outcomes but also by the implicit moral wishes of those who believe that a welfare system which confines itself to the provision of equality of basic opportunities guarantees that no systematic forces other than innate ability and free-choice influence the distribution of labour income.

Furthermore, public initiatives must not be limited to cash-transfers, because they offer only limited scope for redress of inequality. What is needed is a welfare policy that is allowed to take the form of 'structural involvement' in both the product and labour markets, involving the provision in kind of a range of services from housing and health services to training and retraining[21],as well as legal initiatives such as affirmative action. Only in this way can we move towards achieving a fair balance of social justice.

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21.   Training and retraining are not panaceas for large scale national unemployment. Neither can poverty and the non-pecuniary aspects of job-loss be eliminated by employment benefits. What this paper sets out to emphasise is the moral obligation owed by those enjoying stable prices and growing incomes to those who bear the brunt of economic restructuring and the focus of policy on the balance of payments and inflation.

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Social Security Cash Transfers, Income Taxes, and the Distribution of Lifetime Income in Australia

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1 Introduction

Analyses of cross-section samples of the populations of industrialised countries at a single point in time have typically found the **distribution of income** to be highly unequal. For example, in 1984 the top 10 per cent of Australian households received more than 13 times as much pre-tax income as the bottom 10 per cent (ABS, 1987b: 22), while in 1978-79 the top 10 per cent of all income units received more than one-quarter of total income and the bottom decile received only 1.7 per cent of total income (Ingles, 1981: 30). Broadly comparable inequalities have also been found in OECD and other industrialised countries (Stark, 1977; Sawyer, 1976).

Similarly, the numerous studies of the **income redistribution** achieved by various government taxes and expenditures, also based upon cross-section data, have generally concluded that the net effect of such programs is to succesfully redistribute income from rich to poor (Saunders, 1984). While the studies range from those which simply allocate personal income taxes and cash transfers,[1] to those which also embrace other taxes and other types of government expenditure[2], the findings of the latter are strikingly similar. Thus, annual net fiscal incidence studies typically conclude that taxes are broadly proportional to income or slightly progressive (with the progressive effect of income taxes being offset by other regressive taxes); that cash transfers, and to a lesser extent other government expenditures, are progressive; and that the combined effect of both taxes and outlays is to transfer income from the rich to the poor.

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1. For example, see Kakwani (1983), Saunders (1982) and Collins and Drane (1981, 1982) for Australia.

2. For example, see CSO (1990), O'Higgins and Ruggles (1981), Webb and Sieve (1971), Peacock and Browning (1954), Barna (1945) and Cartter (1955) for the UK; ABS (1987b) and Harding (1982, 1984) for Australia; Reynolds and Smolensky (1977) and Gillespie (1965) for the USA; and Dodge (1975) and Ross (1980) for Canada.

But do these conclusions still hold when a much longer time period, such as an entire lifetime, is considered? For example, at any single point in time, a large proportion of those with low incomes are retirees, who might have enjoyed high incomes in the past while in the labour force, or students or teenagers, who will probably earn much higher incomes in the future. It thus seems likely that, if one could somehow measure the past and future incomes of all of those captured in a cross-section survey, their **lifetime** incomes would be much more equally distributed than their incomes during the single year or weeks embraced by the survey. But how much more equal? Similarly, while income taxes appear progressive in net fiscal incidence studies, taking a greater slice of the income of the rich than of the poor, and income-tested cash transfers appear even more effective in directing resources to the poorest in society, it is likely that many of the cash transfer recipients of today were the high income taxpayers of yesterday.

Thus, when a longer time period is considered, it is conceivable that the wide-ranging programs of government taxation and expenditure common to all industrialised countries simply redistribute resources across the lifecycle of individuals, funding the cash transfers and services received by each individual while they are studying or retired from the taxes collected from that same individual during their peak working years. It is therefore possible that government programs do not redistribute income from rich to poor at all, as annual net fiscal incidence studies suggest, but merely enforce the reallocation of income during the lifecycle - in other words, that all of the redistribution achieved by taxation and expenditure programs is **intra-personal**, rather than **inter-personal**.

Such doubts have been raised before. The major variations in income which may occur from year to year take place against the backdrop of a pronounced hump-shaped pattern of income over the course of the lifecycle, with income rising from the low levels apparent during the early years of workforce entry to peak during the working years before slumping again in retirement. This variability has given rise to heated debate about the extent and measurement of income inequality and of income redistribution. For example, Friedman's celebrated Permanent Income Hypothesis suggested that the distribution of well-being was better measured by the distribution of 'permanent' income rather than the distribution of income at a single point in time (Friedman, 1957), because the latter was affected by both transitory income fluctuations and lifecycle effects, which tended to increase the extent of measured income inequality.

Other economists have criticised the conventional cross-section measures of income inequality, arguing that they overstate the degree of inequality in society by confusing the to-be-expected **intra**-personal variation of income over the lifecycle with 'the more pertinent concept of **inter**-[personal] income variation which underlies our idea of inequality and social class' (Paglin, 1975: 598). The same concerns are echoed by Polinsky, who also points out that 'one cannot infer from a sequence of diminishing cross-sectional Gini coefficients that lifetime incomes are being equalised. Lifetime income inequality may in fact be staying constant or even increasing' (Polinsky 1973: 221).

Still others have suggested that the cross-section studies of the redistributive impact of government activity may be flawed. As Layard points out, the annual approach first 'exaggerates the basic inequality of incomes and then it exaggerates the amount of redistribution' (1977: 46). The same concern is echoed by Reynolds and Smolensky, who argue that 'a single year accounting period exaggerates the size of government redistribution by almost any definition of redistribution' (1977: 24).

Many economists therefore agree that the distribution of well-being would be better measured by the distribution of lifetime income rather than annual income (Carlton and Hall, 1978: 103); that it would be desirable to measure the lifetime redistributive impact of government activity rather than the annual impact; and that existing annual studies are likely to overstate both the degree of inter-personal income inequality and the extent of inter-personal income redistribution achieved by government.

2 Sources of Longitudinal Data

Answering these types of questions requires longitudinal data. However, as Atkinson points out, the 'immediate problem with the lifetime approach is that of obtaining the required data' (1983: 45). There are a number of possible sources for such data. In some industrialised countries longitudinal data does exist (for example, in the form of income tax, social security or social insurance records), and if access to such confidential data is granted they can be used to generate lifetime profiles (Bourguignon and Morrisson, 1983; Schmahl, 1983; Kennedy,1989). Unfortunately, administrative or tax data usually have the major disadvantage that key personal characteristics which are relevant to lifetime profiles are not recorded (such as education or marital status), because they are tangential to the original purposes for which the data was collected. In addition, such data rarely cover entire lifetimes.

Australia does not collect comprehensive longitudinal social security records. The income tax records might represent a potential source of data, but they do not seem to have ever been exploited. In any event, in all administrative data, the records of those who have not yet died are necessarily incomplete, so that simulation techniques are usually still required if one wishes to generate lifetime profiles.

A second source of longitudinal data is to survey regularly the same individuals over a number of years, thereby producing **panel data**. Such panels are not very numerous, partly because it is not until some years after the commencement of a study that any interesting longitudinal data become available, and also because such panels require a major and long-term funding commitment by governments or other sponsoring bodies. In addition, panels suffer from a number of difficulties, including the problem of attrition of the original sample and the likely impact of such attrition upon the reliability of the results (Atkinson et al., 1990: 73)

Even though panel studies do provide invaluable data on transitions between states over time, they do not of themselves provide **lifetime** profiles. Even the well-known Michigan panel study (Morgan, 1974) has surveyed only about one-fifth of the

lifetimes of the original respondants; various econometric or simulation techniques still have to be applied to the longitudinal data produced from such panels in order to provide lifetime estimates. Consequently, it is clear that answering questions about the lifetime distribution of income in Australia or about the lifetime incidence of taxes and transfers, particularly in the absence of any comprehensive longitudinal data, requires the simulation of lifetime profiles. After consideration of the simulation and econometric options available, it was decided to attempt to construct realistic lifetime profiles using the techniques of dynamic microsimulation. The key advantage of dynamic microsimulation over the techniques which have been used by econometricians and economists in the past is that it allows the circumstances of individuals to change constantly, just as panel data suggests that they do in the real world (Elder, 1985; Duncan, 1984).

3   Dynamic Cohort Microsimulation Models

Microsimulation models (sometimes also called microanalytic simulation models) were pioneered in economics by Guy Orcutt in the United States in the late 50s and 60s (Orcutt, 1957; Orcutt et al., 1961, 1978, 1986). The defining characteristic of such models is that they deal with the characteristics and behaviour of micro-units, such as individuals, families or households. In contrast to the better-known macro-economic simulation models, which   examine relationships between national economic sectors and agreggated variables, microsimulation models examine the effects of policy and economic changes at the micro level (Merz, 1988).

Dynamic cohort microsimulation models[3] attempt to project a single cohort of individuals born in the same or adjacent years forward through time. The micro-units are 'aged' one year at a time, through the simulation of demographic and other events such as death, marriage, divorce, birth, children leaving home, etc. The cohort are generally aged from birth to death, so that the entire lifecycle of one cohort is simulated.

This ageing is based on the probabilities of various demographic and other transitions occurring and these probabilities are estimated from official statistics, sample surveys and other data sources within a country. Transitions between various states are then simulated, by using these probabilities allied with Monte Carlo selection processes. For example, when simulating marriage, a random number ranging between 0 and 1 is attached to the record of every individual in the model for every year of life.   Then, in a particular year, the probability of marriage, based upon the demographic characteristics and life history of a particular never married 'person', is compared to this random number.

If the random number is less than the probability of marriage, then the unmarried individual is selected to marry. If the random number is greater than the probability of marriage, then the person is not selected to marry that year and thus remains single for a further year, going through the whole procedure again in the next year of life. For example, if in a particular country there is a 5 per cent probability of single females aged 25 marrying in that year, then five per cent of the single females aged 25 in the dynamic microsimulation model will be married at that age; the females selected to marry will be those whose random number in the year they were aged 25 was less than 0.05. The remaining 95 per cent will remain single for a further year.

The types of processses which are modelled are shown in Figure 1. These processes are gone through every year, so that the characteristics of every individual in the sample are updated every year. For example, the first question is whether or not the individual dies that year, based upon the probability of death for someone of their age, marital status, education etc. If the person 'lives' then all of the later modules are run through and the characteristics of the person are changed in accord with the probabilities of change occurring. For example, depending upon their age, sex and other characteristics, the individual may start or leave tertiary education, switch between different schooling or tertiary sectors, get married or divorced, have a child, enter or leave the labour force, change the number of hours they work or their wage rate, become disabled, change their housing status, and become eligible or ineligible for various cash transfers.

Existing examples of dynamic cohort models include DEMOGEN within Statistics Canada, the longitudinal variant of the West German SFB3 model (Galler, 1989; Galler et al., 1986), the EVENT model in Norway (Schweder, 1989), and LIFEMOD, which is currently being developed by the Welfare State Programme at the LSE (Falkingham, 1990). Dynamic cohort models are generally used to simulate the **entire lifetime** of a single cohort of individuals and thus to answer lifetime questions. They can be used for such purposes as analysing the lifetime earnings and income distribution, determining whether the state is effectively redistributing between periods of relative want and plenty during the lifecycle and examining the lifetime incidence of taxes and government spending programs.

In Canada, for example, DEMOGEN was used to assess the distributional and financial impact of proposals to include homemakers under the Canada and Quebec Pension Plans (Wolfson, 1988, 1989). In West Germany the SFB3 dynamic cohort model was used to analyse the lifetime distributional effects of education transfers and also the degree and direction of redistribution between individuals contributing to the German statutory pension system (Hain and Helberger, 1986). Dynamic cohort models could also lend themselves, when run for two or more widely spaced cohorts, to the evaluation of inter-generational equity.

The existing dynamic models currently all appear to assume that individuals do not vary their behaviour in response to changes in their environment intitiated, for

Figure 1: Typical Structure of a Dynamic Cohort Microsimulation Model
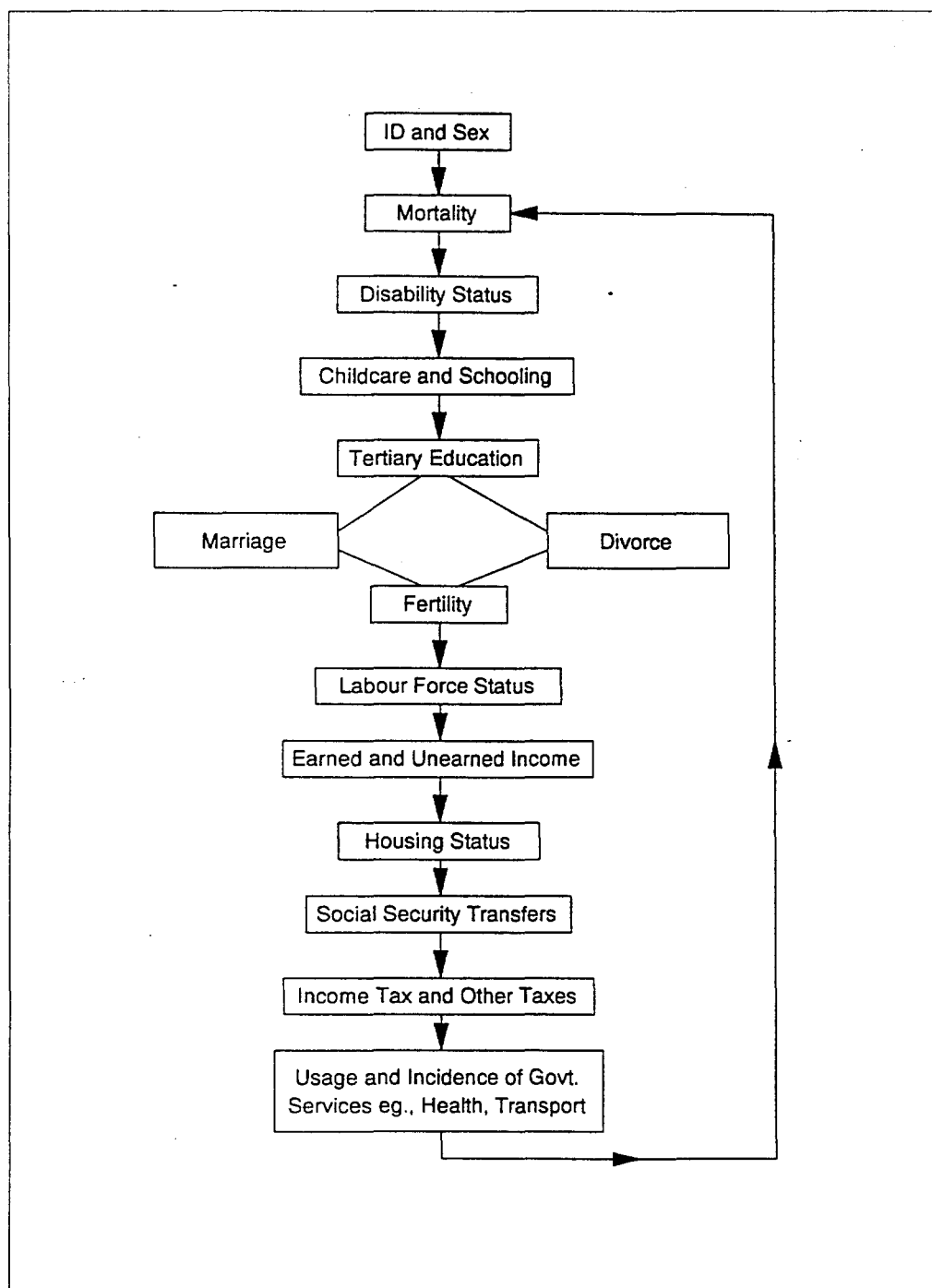
example, by government policy change. Incorporating estimated behavioural responses to tax changes or real wage increases is problematic, because econometric studies designed to assess the magnitude of behavioural change have produced such widely divergent estimates of the relevant elasticities that it appears that the most that can be done is to present the results for a number of different estimates (Hagenaars, 1989: 31). It is also not entirely certain whether the elasticities obtained from cross-section data can be assumed to reflect accurately lifetime behavioural response (Heckman and MaCurdy, 1980: 67). Given these difficulties, dynamic models have not yet attempted to incorporate behavioural response, but there is no doubt that this will be undertaken in the future.

4   Structure of the Harding Dynamic Cohort Model

The model consists of a pseudo-cohort of 2000 males and 2000 females, who are tracked from birth to death and experience major life events such as schooling, marriage and unemployment. The cohort are 'born' in 1986 and live for up to 95 years in a world which remains exactly as it was in their birth year. Given the uncertainty surrounding future changes in marriage and birth rates, labour force participation rates, education rates and so on, this means that a **steady-state** world has been assumed in the initial version of the model. Thus, the first version of the model does not attempt to estimate what the actual experience of the cohort born in Australia in 1986 will be. Instead it seeks to answer the following question: If the demographic, labour force, income and other characteristics of the population and all government policies existing in 1986 remained unchanged for 95 years, what would the distribution of income be like and what income redistribution would be achieved by government programs?

Although the steady-state assumption may appear unrealistic at first glance, it is probably the most useful benchmark against which to evaluate current government policies and changes to those policies. As Summers pointed out in 1956, the instability of the size distribution of income makes data about the lifetime income distribution in the past of little help in analysing the lifetime income distribution of today, while the future distribution of lifetime income is unknown. Summers saw great potential in the construction of steady-state or 'latent' income distributions, which would allow one to answer questions about lifetime income distribution given **existing** economic conditions and government policies. He argued in favour of constructing a latent lifetime size distribution of income, which 'refers neither to what has happened nor to what probably will. It is a 'maybe' size distribution which has a very, very small probability of eventuating.' (1956: 4). Similarly, both the DEMOGEN and SFB3 dynamic cohort models assume a steady-state world when evaluating the impact of both existing and possible government policies (Wolfson, 1988: 233; Hain and Helberger, 1986: 63).

The processes simulated in the model include:

• **death** - probability dependent upon age and sex (from ABS , 1987d);

- **disability** - entries to and exits from various disabled states dependent upon age and sex (from ABS 1988 Disabled and Aged Persons Survey - ABS, 1989);

- **schooling** - preschool usage by age and sex; attendance at government, Catholic and other independent schools dependent upon age, sex and parental socio-economic status; shifts between the sectors modelled; probabilities of leaving school from age 15 onwards dependent upon age, sex, parental SES and schooling sector (probabilities derived from numerous education surveys, including ABS, 1987a);

- **tertiary education** - full or part time attendance at university or TAFE modelled, dependent at various ages upon age, sex, parental SES, secondary qualifications and study status in preceding year (from wide range of education data, including ABS, 1987c; Anderson and Vervoon, 1983);

- **marriage, remarriage and divorce** - re/marriage dependent upon age, sex and previous marital status, and divorce upon age and sex (from ABS, 1988a, 1988b);

- **fertility** - dependent upon age, marital status and parity (number of children already born) (from ABS, 1987e, 1988c);

- **labour force participation** - probability of entering or leaving the labour force and of number of hours worked dependent upon age, sex, education, study or disability status, labour force status in the preceding year and, additionally, marital status and age of youngest child for women; self- employment status assigned based upon age, education, self-employment status in the preceding year (and husband's self-employment status for women); probability of various lengths of unemployment dependent upon age, sex, lifetime unemployment propensity and unemployment status in preceding year (probabilities derived from 1986 Income Distribution Survey - IDS);

- **earnings** - dependent upon age, sex, education, invalidity status, 'ability', hours worked, whether wage and salary earner or self-employed and a stochastic term to capture fluctuations in earnings from year to year; all income figures in model expressed in constant 1986 dollars (from 1986 IDS);

- **other private income** - income from investments, interest, rent and superannuation modelled, based on such characteristics as age, sex, education, earnings, labour force status, marital status and disabilty status; maintenance also included (from 1986 IDS);

- **social security and education cash transfers** - receipt of age, invalid, wife's, carer's and sole parents pension; unemployment, sickness and special benefits; family allowance and family allowance supplement, multiple birth payments, additional pension/benefit, mothers/guardians allowance, SAS and TEAS (now called AUSTUDY) and postgraduate study awards all included (June 1986

system and rates imputed in accord with rules for eligibility; all payments assumed to be fully incident upon those actually receiving them);

- **income tax and Medicare levy**, including the dependent spouse, sole parent, pensioner and beneficiary rebates (1985-86 income tax schedules imputed in accord with rules for liability or eligibility, with all taxes assumed to be incident upon those legally liable to pay them).

This means that by the time one of the 4000 individuals in the model 'dies', an enormous amount is known about their lives. For example, in each year of life we know whether they were studying and at what type of institution, their marital status and the age and number of any children, their labour force status and their earnings, their receipt of other private income or cash transfers and the amount of income tax they paid. Housing status has unfortunately not been included in the first version of the model, principally because there were no adequate housing data on the 1986 Income Distribution Survey micro-data tape which could be used for the simulation of housing, and longitudinal data on housing were also not available.

In addition, although it is hoped to include indirect taxes and other government expenditures in the model in the near future, at the moment assessment of the impact of government is limited to the major cash transfers, education outlays and income tax administered by the Federal Government. It must be fully appreciated, therefore, that the following results only deal with the lifetime redistribution of **cash income** generated by the federal tax-transfer system. If the model embraced indirect taxes or other government expenditures, it is possible that quite different conclusions might be reached about the redistributive impact of all government activity or about the distribution of a lifetime income measure which included the imputed value of various government services. Inclusion of state and local government taxes and expenditures might also affect the conclusions.

A further issue is that in assessing the impact of government upon income redistribution, the distribution of income before specified government actions necessarily has to be compared to the distribution of income **after** such actions. This immediately raises the question of what the most appropriate 'before' benchmark - or counterfactual - is. Although heavily criticised (Reynolds and Smolensky, 1977), the most commonly used reference point is the 'zero government counterfactual', which measures the redistributive effect of government against the original distribution of pre-tax and pre-transfer income. While it is clearly invalid to assume that the distribution of factor income would remain the same if there was no government, such an assumption has been implicitly adopted in this study, because there are no data available suggesting how the lifetime distribution of factor income in Australia would change if government miraculously disappeared.

The model can be used in a number of ways. It is possible to isolate those with particular lifetime characteristics and examine their lifetime profiles, e.g. to analyse the sources and amount of lifetime income received by those with different educational achievements, various family characteristics and differing lengths of time unemployed. The lifetime advantage enjoyed by those with tertiary degrees or

the lifetime disadvantage experienced by those with large families can thus be assessed.

A second strand of analysis is to use the same records to create a synthetic **annual** income distribution (as well as a lifetime distribution), and to then contrast the inequality of the lifetime and annual income distributions. This approach also allows comparison of the annual and lifetime incidence of taxes and transfers and assessment of the relative importance of the extent of the intra- and inter-personal income redistribution occurring.

While the above approaches provide a picture of total lifetime income and tax-transfer incidence, they tell us nothing about the periods of relative poverty and plenty during the lifetime. A third possible use of the model is to examine the distribution of income during the **lifecycle** of those with varying lifetime characteristics, and to identify the amount of taxes paid and transfers received at various ages. For example, it is possible to contrast the experiences of those who never married with those who married and raised large families, and to trace the impact of children upon living standards at different stages of the lifecycle.

Finally, the model can also be used to assess how implemented or proposed policy changes would affect the distribution of lifetime income and to examine whether they would direct resources to those stages of the lifecycle where individuals typically experience lower standards of living. For example, the lifetime impact of changes to the Higher Education Contribution Scheme or to family allowance rates can be calculated. As an introduction to the output of the model, the following discussion concentrates upon the distribution of lifetime income and upon the lifetime redistributive impact of the tax-transfer system.

5   The Distribution and Redistribution of Lifetime Income by Sex and Decile

This section reports the results when individuals are ranked by the amount of equivalent income they receive during their lifetimes, and the differing characteristics of those with high and low lifetime standards of living are examined. While any of the various lifetime income and tax measures available in the model could be used to rank individuals, equivalent income has been selected as the measure which best encapsulates lifetime welfare.

If equivalent lifetime income was not used to rank individuals then, for example, a never married male with a lifetime income of half a million dollars would be regarded as having achieved the same lifetime standard of living as another male who, although having the same total lifetime income, for 20 years supported a non-working spouse and four children. Thus, the use of equivalent income to try to improve comparisons of welfare is now widely accepted and, for example, is endorsed by the British Central Statistical Office, who now rank all households by equivalent income in their yearly analyses of fiscal incidence in the UK (1990). The

equivalence scale used in the model is that implicit in the social security cash transfer system at January 1990.

It should be appreciated, however, that no equivalence scale can capture fully the differences in the needs of various types of income units due to their differing circumstances. Most equivalence scales do not, for example, allow for the possible differences in income required by families with severely disabled members. There is also extensive debate about whether equivalence scales applicable to low income families are equally applicable to high income families and about how to measure accurately the differences in income required by those in different circumstances (Whiteford,1985). Despite these problems, equivalent income is now widely used in cross-sectional income distribution studies to rank different types of income units (e.g. Kakwani, 1986; O'Higgins et al., 1981, 1988). The alternative of assuming that those with the same monetary income but very different needs have the same standard of living is seen as even more unacceptable.

It is also not immediately obvious how to make sense of lifetime income measures. If the income received by an individual in every year of life is summed, and the population is then divided into deciles of total lifetime income, many of those in the lowest income decile will simply be those who died at a younger age. Their lower lifetime incomes will thus reflect the reduced number of years in which they earned income, rather than necessarily pointing to a low lifetime standard of living. Measures of tax and transfer incidence will be similarly distorted as, for example, those who died early will have received no age pension, and the transfer system might therefore falsely appear to be regressive. To circumvent these problems, the incomes received by the cohort in every year of life were summed and then annualised lifetime income measures were derived, by dividing the various lifetime totals by years of life minus 15. The annualised income measures can thus be viewed as the average amount of income received during each year of adult life.

Sections 5.1 and 5.2 describe the patterns of income distribution and redistribution found when first males and then females are divided into deciles of annualised lifetime equivalent family disposable income. Section 5.3 broadens the analysis to take account of presumed income sharing within the family unit, and discusses how the marked differences between the personal incomes of men and women are attenuated once family circumstances are considered. Section 5.4 briefly discusses the lifetime income distribution for the cohort as a whole.

5.1 The Lifetime Income Distribution of Males

As one might expect, higher lifetime original (i.e. pre-tax, pre-transfer) incomes are the product of higher earnings, greater investment income and increased access to occupational superannuation, with investment income being much more unequally distributed across income deciles than earnings, and the distribution of superannuation income being highly skewed towards those in the top three deciles of lifetime income (Table 1). These trends are reflected in Figure 2, which shows the

Table 1: Annualised Lifetime Income Characteristics of Decile Groups of Men, Ranked by Deciles of Annualised Lifetime Equivalent Disposable Income

| Measure | Decile of Annualised Lifetime Equivalent Disposable Income | | | | | | | | | | |
	1	2	3	4	5	6	7	8	9	10	Average
Earnings	6,840	8,890	10,940	12,385	13,715	15,445	16,945	19,580	23,430	32,785	16,105
Investment income	200	300	445	470	650	1,050	1,180	2,020	2,885	5,740	1,495
Superannuation	0	5	0	5	30	80	125	375	1,115	2,745	450
Original Income	7,040	9,200	11,385	12,860	14,400	16,575	18,250	21,975	27,435	41,270	18,050
Invalid pension	45	40	25	15	5	10	5	15	5	5	15
Age pension	665	785	750	680	570	470	420	250	115	25	475
Unemployment and other benefits	230	185	140	145	140	140	120	110	95	50	135
Education transfers	45	35	30	25	25	25	30	30	20	15	20
Total Cash Transfers[a]	985	1,040	945	860	740	650	575	405	235	100	655
Gross Income	8,025	10,240	12,335	13,720	15,140	17,220	18,825	22,380	27,675	41,370	18,705
Income tax paid	1,110	1,745	2,400	3,005	3,595	4,375	5,130	6,690	9,300	16,890	5,430
Disposable Income	6,915	8,495	9,935	10,720	11,545	12,845	13,695	15,690	18,375	24,480	13,275
Shared disposable income (family unit)	5,985	7,550	8,595	9,500	10,320	11,220	12,225	13,565	15,525	20,740	11,525
Equivalent disposable income (family unit)	10,050	12,795	14,530	16,140	17,600	19,115	20,905	23,265	26,750	35,505	19,675
Equiv income - 60:40 split within couples	11,205	14,290	16,340	18,075	19,970	21,425	23,420	25,940	29,945	38,745	21,945
Lifetime education services income[b]	38,610	36,960	39,320	40,660	42,745	41,585	40,290	42,740	43,105	44,895	41,360

Notes: (a) Includes small amount of child transfers (family allowance and sole parents pension for male sole parents).
(b) This is the total amount of education services income received during the entire lifetime (i.e. it has not been annualised). All income figures rounded to nearest $5. Totals may not sum due to rounding.

Figure 2: Sources of Annualised Lifetime Gross Income for Men, Ranked by Quintile Groups of Annualised Lifetime Equivalent Disposable Income
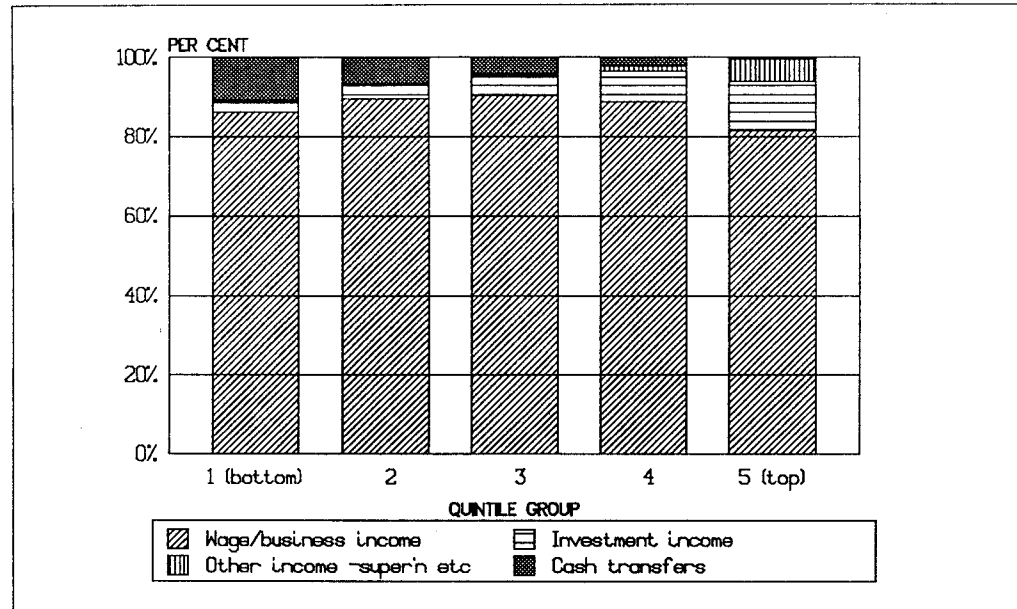
composition of annualised lifetime gross income by quintile groups, ranked by annualised lifetime equivalent income. For the bottom 20 per cent of males, cash transfers contribute an average 10 per cent of gross income during each year of adult life, and earnings almost all of the remainder. For the top quintile, earnings are relatively less important, cash transfers almost non-existent, and investment income and superannuation together make up almost 20 per cent of annualised gross income.

Those males who received sufficient income to place them in the top 10 per cent of the distribution received on average about $32,800 in earnings every year, around $5,700 in investment income and about $2,750 in superannuation payments, resulting in an annualised original income of almost $41,300 (Table 1). In contrast, those males who were placed in the bottom 10 per cent of the income distribution averaged only $6850 of earnings, about $200 of investment income and no occupational superannuation, leading to a total original income of some $7,000. The dispersion of earnings for males is shown in Figure 3, with just under 30 per cent of all males receiving annualised earnings between $10,000 and $15,000 (the midpoints of the various earnings ranges are shown on the vertical axis). Some 70 per cent of all males in the bottom decile received annualised earnings of between $5,000 and $10,000 during each year of adult life, and only 10 per cent received more than $10,000. In contrast, about one-quarter of males in the top decile of annualised equivalent income received annualised earnings of between $25,000 and $30,000, and almost 10 per cent received more than $50,000 a year.

Figure 3: Frequency Distribution of Annualised Earnings for Males
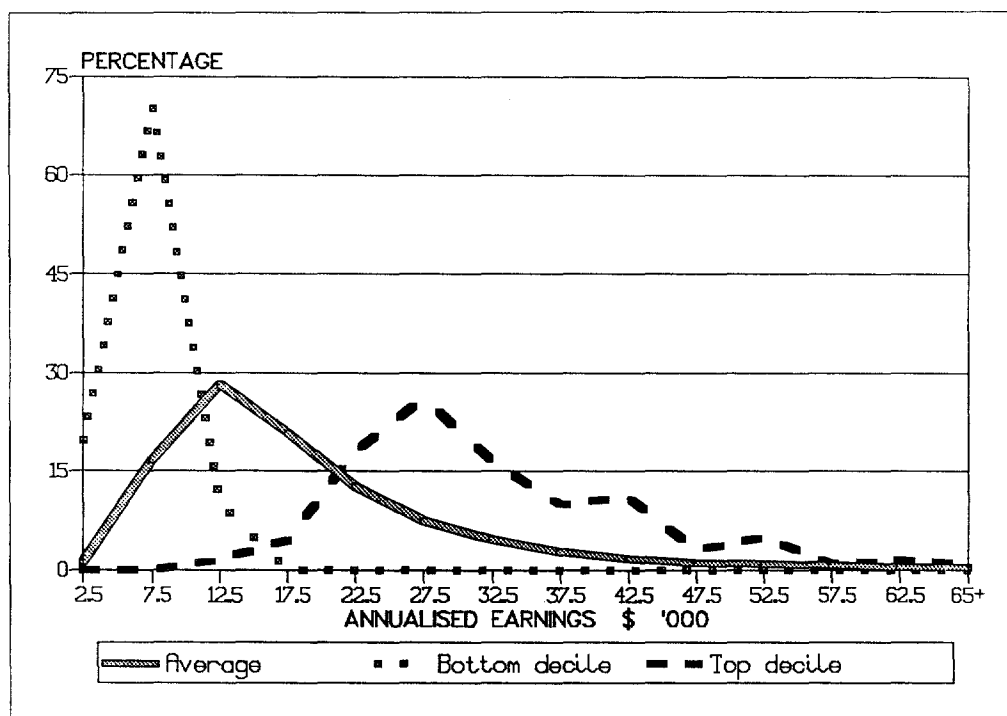
As Table 2 shows, the higher earned incomes of those in the top half of the income distribution were due in part to their higher hourly wage rate, with the average hourly lifetime wage rate of $20.75 received by the top decile being almost four times higher than the $5.30 averaged by males in the bottom decile. However, those in higher income deciles also spent substantially more years in the labour force and, when in the labour force, spent significantly more hours in employment and fewer hours unemployed. For example, those in the top decile averaged 45.2 years in the labour force and 1995 hours of employment during each of those years, while those in the bottom decile averaged only 39.7 years in the labour force and 1895 hours of employment per year during those years.

The higher average wage rates received by those at the top of the income distribution were associated with more years of education and, in particular, with the attainment of a degree. Of all those who gained a degree during their lifetimes, only 26 per cent received incomes which placed them in the bottom four income deciles, while 44 per cent were in the top three deciles and almost 20 per cent in the top decile. For those who achieved only secondary school qualifications, only 3 per cent reached the top income decile and 17 per cent the top three income deciles, while 41 per cent were clustered in the lowest quintile. Those with some tertiary qualifications were fairly evenly spread throughout the income distribution.

Table 2: Other Characteristics of Decile Groups of Men, Ranked by Deciles of Annualised Lifetime Equivalent Disposable Income

Measure	Decile of Annualised Lifetime Equivalent Disposable Income										
	1	2	3	4	5	6	7	8	9	10	Average
1. Labour Force Characteristics											
Av. years in labour force (gt one hr per yr)	39.7	43.4	42.9	43.8	44.4	44.7	44.6	44.0	45.0	45.2	43.8
Av. years any unemployment experienced (> 1 hr per yr)	5.5	5.1	4.0	4.4	4.9	4.5	4.0	3.8	3.7	2.1	4.2
Av. years worked full-time full year	31.3	34.2	34.6	35.5	35.8	36.2	36.4	36.3	36.6	36.5	35.3
Av. years of self-employment	13.6	11.8	9.3	8.6	8.8	8.6	8.2	7.2	8.4	10.2	9.5
Total hours in l.f. during lifetime	80743	86931	86679	88674	90084	90680	90589	89391	91255	91198	88624
Av. hours in labour force during yrs in labour force	1996	1999	2018	2030	2030	2034	2030	2031	2032	2025	2022
Average hours in employment per year in l.f.	1897	1918	1953	1961	1955	1968	1969	1972	1977	1995	1957
Average hours of unemployment per yr in l.f.	99	81	65	69	75	66	61	69	55	30	65
Average hourly wage rate	$5.28	$6.66	$7.61	$8.79	$9.43	$10.24	$11.24	$12.68	$15.10	$20.77	$10.78
2. Marital and Child Status											
Per cent ever married	81	88	86	85	90	86	87	84	89	78	85
Per cent ever divorced	22	33	27	29	29	26	33	31	33	32	29
Av. no. years with dependent children present	15.7	16.8	16.9	16.8	17.8	16.2	15.9	15.0	15.8	12.8	16.0
Average years married for ever married	40	40	40	41	42	39	39	38	38	34	39
3. Education											
Av. years of education	13.5	13.7	13.6	13.9	14.2	14.1	13.9	14.2	14.2	14.7	14.0
Av. no. of years attended govt schools	9.4	9.5	9.1	9.1	9.1	8.2	8.4	8.8	9.8	8.1	8.9
Av. no. of years attended private schools	2.7	2.6	2.8	2.9	2.9	3.8	3.5	3.4	2.3	4.2	3.1
Av. years tertiary education	2.5	2.7	2.8	2.9	3.1	3.1	2.9	3.1	3.1	3.4	3.0
Per cent with degree	9.10	9.6	12.1	17.2	19.7	19.2	18.2	23.7	25.3	33.7	18.8
Average years of life	71.6	76.9	74.2	75.7	74.8	73.8	73.5	71.5	72.5	72.5	73.7

How did government programs affect this original income distribution? Cash transfers from the government were progressive, and made the gross income distribution more equal than the original income distribution. Education and social security transfers amounted to 12.2 per cent of the annualised gross income received by the lowest income decile, declining to 0.002 per cent for those in the highest income decile.

Those with lower lifetime incomes received more in unemployment and other benefits, reflecting the greater period of time they spent unemployed. Disability also affected lifetime income, with the incidence of severe disability during working years and the associated receipt of invalid pension being concentrated upon those in the bottom three income deciles.

Average age pension received declined as original income and superannuation receipt increased, although those in the lowest income decile averaged somewhat lower age pension receipt than those in the next three deciles, apparently as a result of their significantly shorter lifespans (71.6 years for those in the lowest decile compared to 76.9 years for those in the second decile). The absolute value of education transfers showed no definite pattern by income decile, with those in the bottom deciles being more likely to receive SAS in respect of their student children and those in the top deciles being more likely to recieve TEAS or PGA when they were themselves students.

Income tax payments were also progressive, amounting to 13.8 per cent of the annualised gross income of those in the bottom decile and rising to 40.8 per cent of the gross income of the top decile. Figure 4 shows the absolute amounts of annualised taxes paid or transfers received by decile of lifetime annualised equivalent income. For example, those in the highest income decile received less than $100 a year in transfers but paid out almost $16,900 a year in income tax, leaving a net deficit each year of around $16,800.

The variation in the amount of cash transfers by decile is insignificant in comparison to that of income tax, with the latter thus having the major impact upon reducing the variance of incomes. As Figure 4 demonstrates, even for the lowest income decile, average taxes paid exceeded average transfers received, in marked contrast to the results derived from 'snapshot' cross-section studies of tax-transfer incidence.

These effects are also captured in Figure 5, which shows how the dispersion of incomes is reduced at each stage of the tax-transfer system. For example, at the original income stage shown at the left hand side of the graph, the annualised original income of the top quintile of $34,000 is some 4.2 times greater than the $8,000 received each year on average by the bottom quintile. After adding any cash transfers received to their original income, this dispersion is narrowed somewhat, with the annualised gross income of the top quintile being about 3.8 times the gross income received by the bottom quintile. Income taxes have a much greater impact, with the disposable incomes of the top quintile falling to just over $21,000, about 2.8 times more than the annualised disposable income received each year by those in the bottom quintile.

Figure 4: Amount of Annualised Lifetime Cash Transfers Received and Income Tax Paid by Men, Ranked by Deciles of Annualised Lifetime Equivalent Income
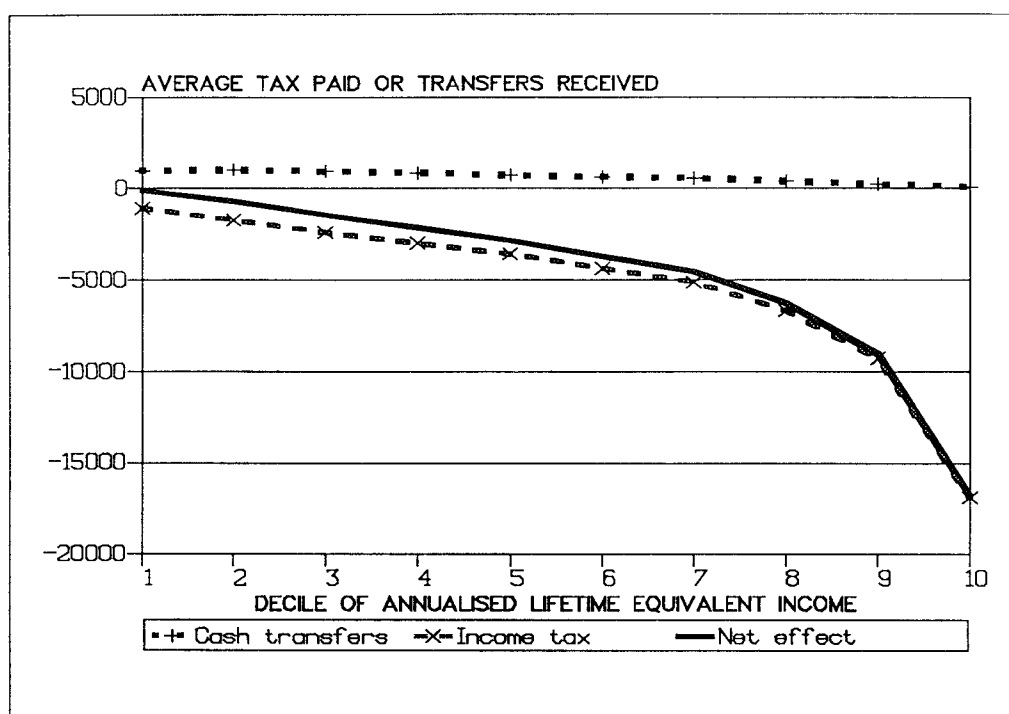
The impact of the tax-transfer system upon the income distribution can also be graphically illustrated using Lorenz curves, which plot the cumulative share of income against the cumulative share of households. The curve representing complete equality of income is thus a diagonal line from the bottom left hand corner of the graph to the top right hand corner: the more unequal the distribution of income, the more the Lorenz curve sags down away from the line of complete equality.

As Figure 6 shows, both lifetime transfers and taxes were progressive, as the distribution of disposable income was much more equal than the distribution of gross income, which was in turn more equal than the distribution of original income. For example, the share of original income received by men in the bottom 10 per cent of all men, ranked by amount of original income received, was only 3.2 per cent; after the receipt of transfers this share had increased to 3.7 per cent of gross income and, after the payment of income taxes, to 4.5 per cent of disposable income. Similarly, the share of income accruing to the highest income recipients was sharply reduced by the tax-transfer system. While the top 10 per cent of males received 24.5 per cent of original income, they gained only 23.7 per cent of gross income and 19.5 per cent of disposable (i.e. post tax-transfer) income.

Figure 5: The Effect of Cash Transfers and Income Tax Upon the Lifetime Income Distribution of Men, Ranked by Quintile Groups of Annualised Lifetime Equivalent Income
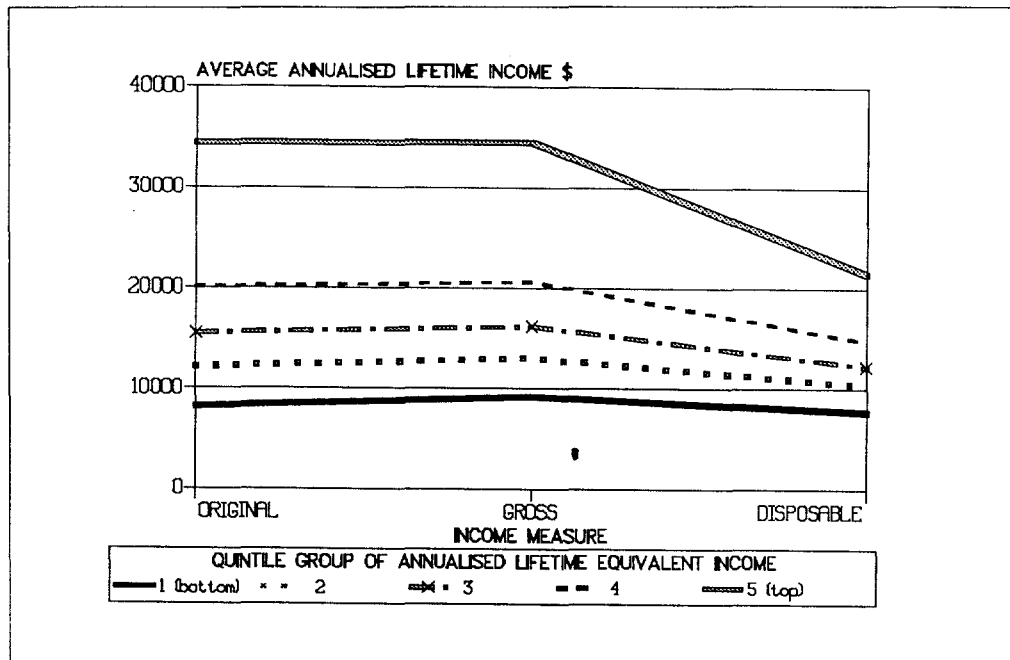
The imputed value of total (not annualised) income received from use of pre-school, primary and secondary school and tertiary education rose as lifetime income increased (Table 1). As shown in Table 2, those in higher deciles were more likely to attend private schools, which received a lower government subsidy than public primary and secondary schools. However, the lower education outlays received by those in higher income deciles while they were in primary and secondary school were more than offset by the imputed value of the tertiary education they received later in life. While the distribution of dollar education outlays was thus slightly pro-rich, the incidence of such transfers was still progressive, as they amounted to a smaller proportion of gross income for those in higher income deciles (see Harding, 1984: 19-22 for a fuller discussion of the difference between distribution and incidence).

Although marital and child status seemed to have less impact upon men's lifetime income than education and labour force participation, it was notable that among those in the top decile only 78 per cent had ever married; for those who did marry the average number of years married was 34; and that the average number of years spent in a family with dependent children present was only 12.8. All of these were the lowest figures recorded for any decile.

Figure 6: Lorenz Curves of Annualised Lifetime Original, Gross and Disposable Income for Men

Note: Unlike the tables above, where individuals were ranked only once by their annualised equivalent incomes, individuals are re-ranked to produce each of the above Lorenz curves. To derive the Lorenz curve for original income all individuals are ranked by their original income, while to construct the Lorenz curve for disposable income all individuals are first ranked by their disposable income.

5.2   The Lifetime Income Distribution of Females

Women's annualised lifetime earnings were about half of those of men, and the relative gap between the average earnings of the top and bottom deciles was slightly lower, with the top decile earning 4.6 times as much a year on average as the bottom decile (Table 3). Women's earnings were also less dispersed, as a comparsion of Figures 7 and 3 demonstrates, with about 40 per cent of all women receiving annualised lifetime earnings of between $5000 and $10,000 a year (the midpoints of the various earnings ranges are shown in Figure 7). Almost one-third of women in the top decile of annualised lifetime equivalent income received earnings of between $10,000 and $15,000 a year, with just under 10 per cent receiving more than $25,000 a year. In marked contrast, about 90 per cent of women in the bottom decile received average earnings of less than $5000 during each year of adult life.

Investment income and superannuation were again more unequally distributed than earnings. The absolute amount of maintenance income received showed no clear pattern by decile, with those in the middle of the income spectrum tending to receive higher average amounts of maintenance.

As Figure 8 illustrates, cash transfers were a much more important source of lifetime income for women than for men, amounting to almost 30 per cent of gross income for women whose annualised lifetime equivalent income placed them in the bottom quintile. In contrast, they comprised a negligible proportion of the gross income received during each year of adult life for women in the top quintile. Investment income was a more significant component of gross income than for men, because of the substantially lower earned incomes of women. The relative contribution made by superannuation was also more equal by quintile for women, reflecting their receipt of such pensions upon the death of their husbands.

To an even greater extent than was apparent for men, the variation in the lifetime earnings of women resulted from different labour force participation patterns (Table 4). Women in the bottom decile averaged only 28.5 years of labour force participation, compared with 38.5 years for women in the top decile. Hours of employment once in the labour force also showed greater variation, with the 1,660 hours per year averaged by women in the top decile being 15 per cent higher than the 1,440 hours averaged by women in the bottom decile. Although still an important contributor to lifetime earnings inequality, the hourly wage rate of women showed less dispersion than that of men, with hourly earnings ranging from $5.35 for those in the bottom decile to around $13.90 for those in the top decile.

Education was also a significant factor affecting lifetime earnings, with increased lifetime income being associated with greater attendance at private schools, more years of tertiary education and, in particular, the gaining of a degree. Sixteen per cent of those who gained a degree achieved the top equivalent income decile while only 16 per cent were placed in the bottom five deciles. Amongst those who had

Table 3: Annualised Lifetime Income Characteristics of Decile Groups of Women, Ranked by Deciles of Annualised Lifetime Equivalent Disposable Income

Measure	Decile of Annualised Lifetime Equivalent Disposable Income										
	1	2	3	4	5	6	7	8	9	10	Average
Earnings	3,260	4,555	5,390	6,260	6,545	8,365	9,790	10,230	11,750	15,110	8,125
Investment income	330	510	530	745	925	1,535	1,870	2,740	3,550	5,180	1,790
Superannuation	45	30	80	230	215	220	275	345	590	885	290
Maintenance	20	40	25	50	60	55	65	30	40	45	45
Original Income	3,655	5,130	6,025	7,285	7,745	10,180	11,995	13,345	15,940	21,220	10,255
Invalid pension	30	5	45	20	1	5	10	5	5	0	15
Age pension	870	1,240	1,150	1,090	1,020	920	770	510	400	175	815
Sole parents pension	460	420	355	295	290	205	160	165	105	105	255
Unemployment and other benefits	65	55	55	45	55	45	45	40	40	30	50
Child transfers (FA, FIS)	165	195	170	170	185	170	175	160	160	150	175
Education transfers	40	45	35	40	35	30	25	30	20	20	25
Total Cash Transfers	1,630	1,955	1,815	1,660	1,590	1,370	1,180	910	735	480	1330
Gross Income	5,285	7,085	7,840	8,945	9,330	11,550	13,180	14,250	16,670	21,700	11,585
Income tax paid	520	865	1,080	1,430	1,570	2,250	2,970	3,380	4,475	6,850	2,540
Disposable Income	4,765	6,220	6,765	7,515	7,765	9,300	10,210	10,875	12,195	14,850	9,050
Shared disposable income (family unit)	5,925	7,475	8,230	8,980	9,790	10,635	11,570	12,460	14,105	17,460	10,665
Equivalent disposable income (family unit)	9,575	12,065	13,410	14,750	16,120	17,585	19,205	21,070	23,925	29,910	17,765
Equivalent income - 60:40 split within couples	8,540	10,755	12,005	13,105	14,145	15,515	16,865	18,375	20,995	26,060	15,640
Lifetime education services income	36,920	39,085	38,075	39,790	40,180	42,630	42,220	42,570	41,730	43,915	40,710

Note: All income figures rounded to nearest $5. Totals may not sum due to rounding.

Figure 7: Frequency Distribution of Annualised Lifetime Earnings for Females
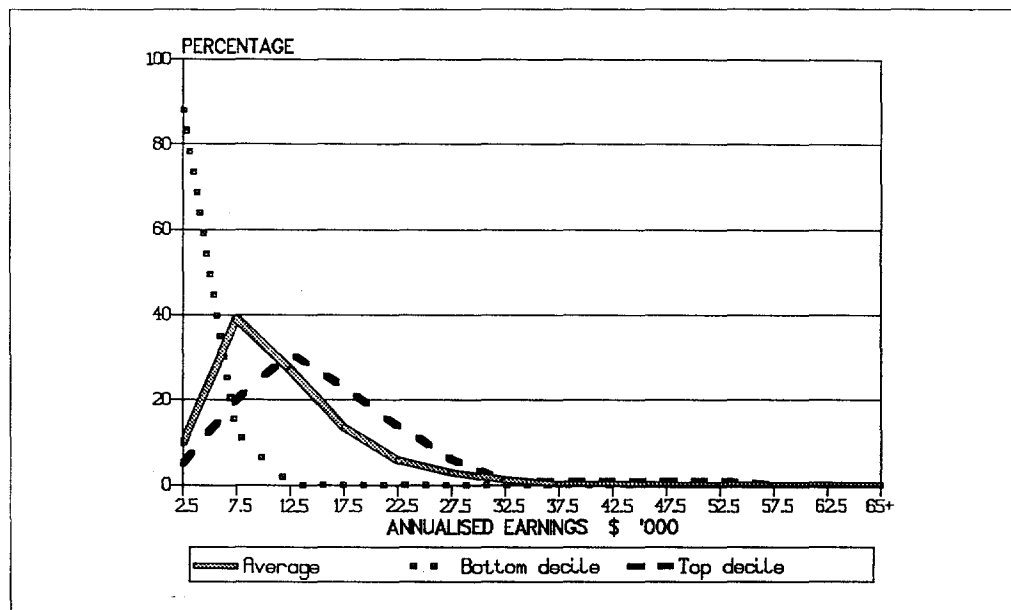
Figure 8: Sources of Annualised Lifetime Gross Income for Women, Ranked by Quintile Groups of Annualised Lifetime Disposable Income
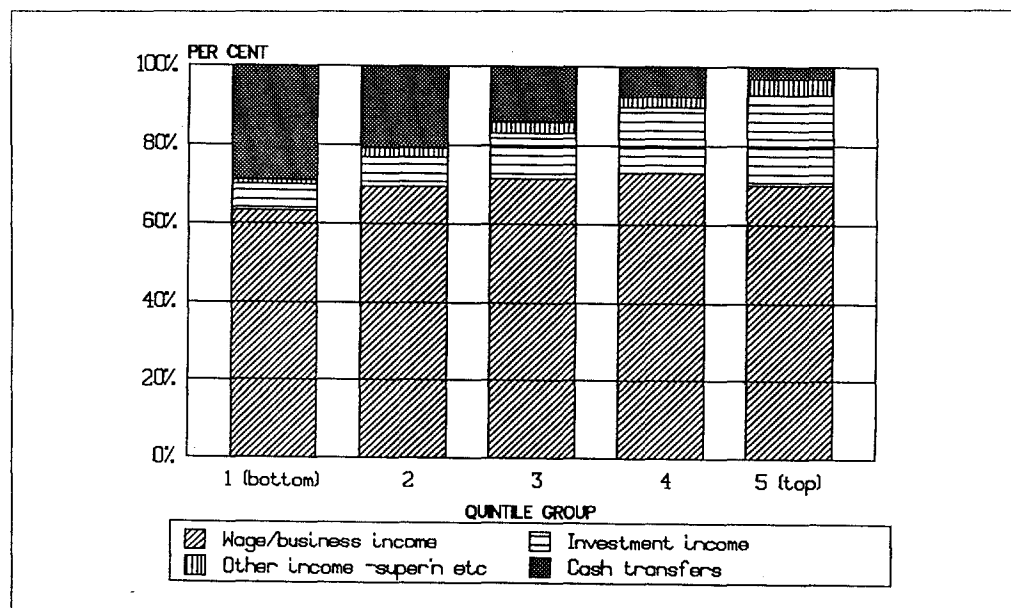
Table 4: Other Characteristics of Decile Groups of Women, Ranked by Deciles of Annualised Lifetime Equivalent Disposable Income

Measure	Decile of Annualised Lifetime Equivalent Disposable Income										
	1	2	3	4	5	6	7	8	9	10	Average
1. Labour Force Characteristics											
Av. years in labour force	28.5	30.1	31.2	33.2	33.2	37.3	37.1	36.5	36.3	38.5	34.2
Av. years unemployment experienced	5.5	4.3	4.4	4.4	4.5	3.8	4.1	3.7	3.5	2.8	4.1
Av. years worked full-time full year	15.6	16.4	18.4	19.6	20.0	23.3	23.0	22.7	23.2	24.9	20.7
Av. years of self-employment	5.7	4.2	4.2	4.7	5.0	5.5	5.5	5.5	5.5	6.9	5.3
Total hours in l.f. during lifetime	46027	48271	51400	54942	55417	63109	62386	61990	61925	66582	57,205
Average hours in labour force during yrs in labour force	1571	1564	1605	1627	1646	1673	1659	1678	1681	1709	1640
Average hours in employment per yr in l.f.	1438	1467	1520	1541	1558	1610	1588	1616	1619	1659	1560
Average hours of unemployment per yr in l.f.	133	97	85	86	88	63	71	62	62	50	80
Average hourly wage rate	$5.35	$6.66	$7.06	$7.74	$7.88	$8.89	$10.32	$10.45	$12.11	$13.88	$9.05
2. Marital and Child Status											
Per cent ever married	85	89	86	89	94	91	92	94	93	95	91
Per cent ever divorced	29	31	31	35	34	31	33	26	24	30	32
Per cent ever sole parents	23	28	25	33	28	24	27	21	16	23	25
Av. no. of years with dependent children present	19.6	20.5	19.3	19.4	20.4	19.1	19.7	18.2	18.3	18.4	19.4
Av. no. of children born	1.87	2.1	1.9	1.9	2.0	1.9	1.8	1.7	1.7	1.6	1.8
Av. years married for those ever married	37	35	33	36	36	36	38	38	38	37	37
Av. yrs of sole parenthood for sole parents	9.3	9.3	9.2	7.7	8.9	8.1	8.2	8.7	7.5	7.4	8.4
3. Education											
Average years of education	13.2	13.6	13.5	13.8	13.7	14.2	14.1	14.2	14.0	14.4	13.9
Av. no. of years attended govt schools	9.9	9.2	9.0	8.7	8.6	9.2	9.1	8.6	8.8	8.2	8.9
Av. no. of years attended private schools	2.2	2.9	3.0	3.4	3.4	2.9	3.0	3.3	3.2	4.0	3.1
Av. years tertiary education	2.1	2.5	2.5	2.6	2.7	3.0	2.9	3.1	2.9	3.1	2.7
Per cent with degree	7.1	11.1	12.1	12.1	21.1	24.0	23.1	24.1	23.6	29.1	18.6
Average years of life	81.6	80.4	78.2	79.7	79.1	79.3	78.3	76.8	77.8	76.5	78.8

only gained secondary school qualifications, only 4 per cent made the top income decile and 39 per cent were in the bottom quintile. Those with some tertiary education were again spread quite evenly across the income spectrum.

Average cash transfers received by women were about double those received by men and were again highly progressive, amounting to 30.8 per cent of gross income for those in the lowest income decile and declining to 2.2 per cent of gross income for those in the top decile. For women, characteristics such as being severely disabled and potentially eligible for an invalid pension or being unemployed were less likely to result in receipt of pension or benefit than for men, because the income of husbands more frequently made them ineligible under an income test which took the income of both partners into account. Despite this, low lifetime income was clearly associated with increased unemployment and higher unemployment benefit payments (Table 4).

The amount of sole parent pension received was much higher for women in lower deciles. Interestingly, this was not due to those in low income deciles having a much greater likelihood of ever experiencing sole parenthood, as the percentage ever experiencing sole parenthood did not show a clear trend by income decile but fluctuated greatly (Table 4). However, amongst those who experienced sole parenthood during their lifetimes, an increased number of years spent as a sole parent was correlated with reduced lifetime equivalent income. The amount of age pension received again declined as occupational superannuation increased, so that those in lower income deciles received more age pension.

Income tax was again progressive, amounting to 9.8 per cent of gross income for those in the lowest income decile and rising to 31.6 per cent of gross income for those in the top decile. Figure 9 charts the absolute amount of transfers received and income taxes paid by deciles of annualised lifetime equivalent income. While even for men in the lowest lifetime equivalent income decile the amount of transfers received did not exceed taxes paid, women in the bottom four deciles received on average more in transfers during each year of adult life than they paid in income tax. Only women whose income was sufficiently high to place them in the top half of the lifetime income distribution paid more in taxes than they gained from transfers.

Figure 10 shows the impact of cash transfers and income tax on the average annualised lifetime incomes of women, ranked by quintiles of annualised equivalent income. The gap between the average incomes of the top and bottom quintiles was reduced by cash transfers, as shown by the narrowing of the gap between the top and bottom lines in Figure 10 when moving from original to gross income. While the annualised lifetime original income of the top quintile was 4.2 times that of the bottom quintile, their gross incomes of about $19,000 were only 3.2 times greater than those of the lowest quintile. Income taxes further reduced these income differentials, so that the average lifetime disposable incomes of the top quintile were only 2.5 times those of the bottom quintile. As the Lorenz curves in Figure 11 also indicate, the effect of taxes and transfers was to make the income distribution

Figure 9: Amount of Annualised Lifetime Cash Transfers Received and Income Tax Pad by Women, Ranked by Deciles of Annualised Lifetime Equivalent Income
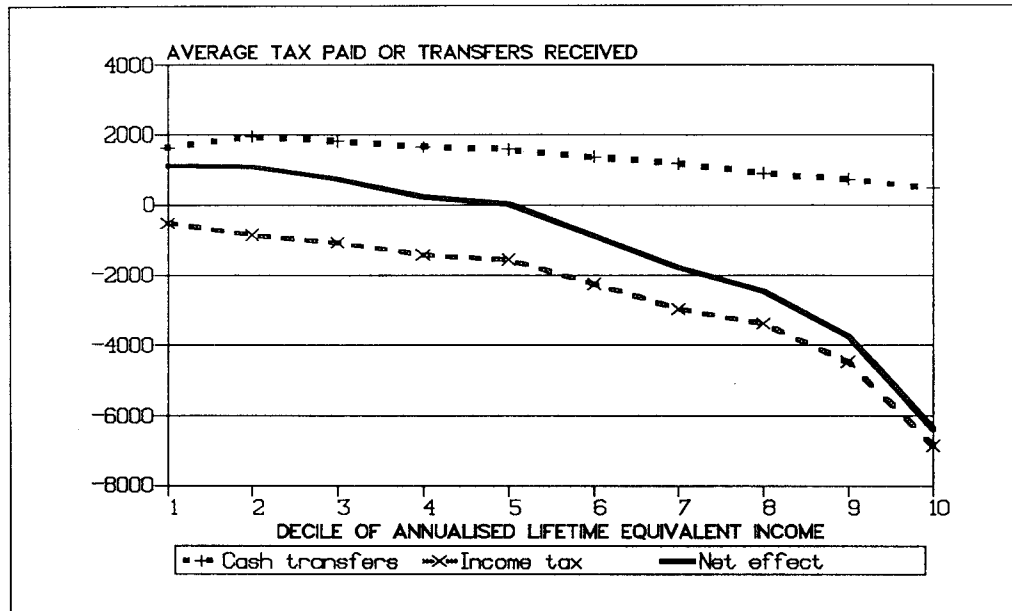
Figure 10: The Effect of Cash Transfers and Income Tax Upon the Lifetime Income Distribution of Women, by Quintile Groups of Annualised Lifetime Equivalent Income
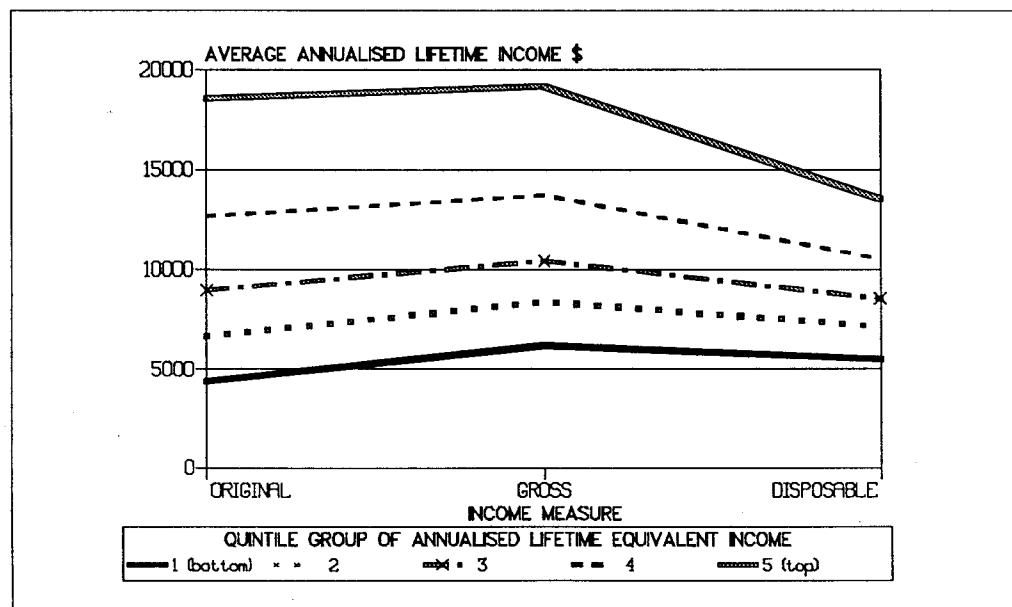
Figure 11: Lorenz Curves of Annualised Lifetime Original, Gross and Disposable Income for Women

CUMULATIVE % OF ANNUALISED INCOME RECEIVED

CUMULATIVE % OF WOMEN

——— Line of complete equality   ▪ ▪ Original income
═ ═ Gross income   ▬▬ Disposable income
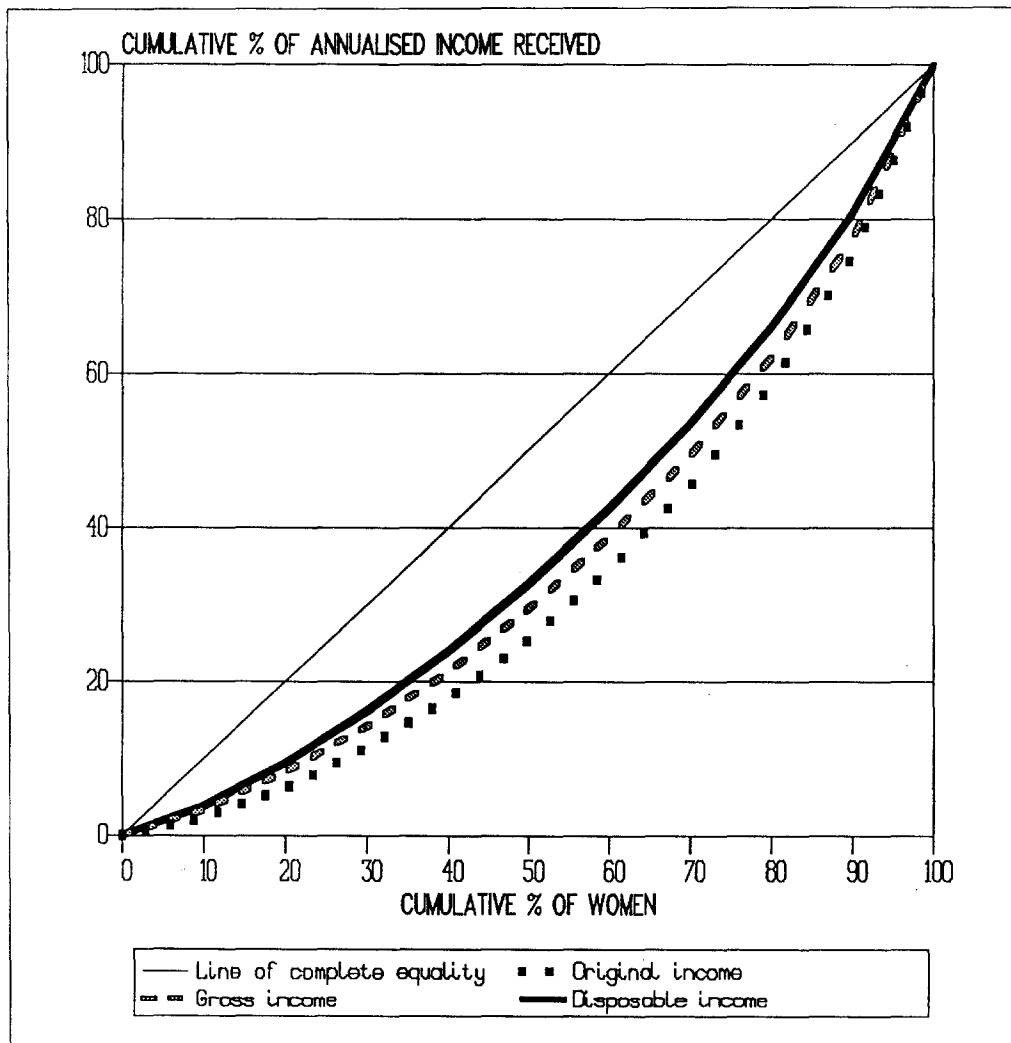
progressively more equal. For example, the bottom 10 per cent of women received only 2.3 per cent of annualised original income but 3.8 per cent of disposable income, while the top 10 per cent of women received 24.9 per cent of original income but only 19.4 per cent of disposable income.

While the marital and child status of men had relatively little effect on their lifetime standard of living, for women marital and child status played an important role in determining where they would be placed in the lifetime income distribution. Women's lifetime equivalent incomes increased with marriage and decreased with

greater family size. This was reflected in Table 4, where a lower percentage of women in the bottom income decile had ever married compared to women in higher deciles, while women in the top decile were the most likely to have ever married but had also borne fewer children.

5.3 Taking Account of Income Sharing Within the Family

While the above analysis has dealt with the personal incomes received by men and women, the personal income distribution does not show the standard of living achieved by each sex, because it takes no account of income sharing within the family unit. Such income sharing helps to attenuate the marked disparities between the personal incomes of men and women described above. For example, the very low earned incomes of many women might not provide an accurate guide to the lifetime standard of living they achieve, because they might be married to high income spouses who share income with them. However, only the incomes of individuals can be tracked in any meaningful way over time, as families are constantly dissolving and reforming from year to year, with marriage, divorce, children leaving home, and so on (Elder,1985: 28).

Consequently, two additional income measures were developed for use in the simulation which took varying degrees of account of family circumstances (Tables 1 and 3). The first, shared disposable income, assumed completely equal sharing of income between adults, so that in married couples all income received was divided equally between each partner, irrespective of the relative contribution of each partner to that combined income. While such equal sharing could be applied to any of the income and tax measures used, disposable income was selected, as it captured the amount of money available to individuals and couples to spend after the intervention of the tax-transfer system. Implicitly, therefore, the measure splits the income taxes paid and cash transfers received by a couple equally between them, irrespective of who actually received the income or paid the taxes. During those years when individuals were single, their shared disposable income was simply the same as their personal disposable income.

The second family-based measure was equivalent disposable income, where an equivalence scale was applied to the total disposable income of a family , and the resulting values for equivalent income were attributed to both partners in the case of married couples. This measure thus goes further than the shared income measure in also taking into account the financial demands imposed by any children, as well as the possible economies of scale enjoyed by a couple living together and sharing accommodation etc., relative to a single person.

Once account was taken of presumed income sharing between couples, the standard of living of women rose sharply. Although the absolute values of equivalent income simply reflect the equivalence scale used, the distribution of equivalent income can be validly compared to that of disposable income. As Figure 12 demonstrates, the distribution of income, once account is taken of needs, is more equal for both men

Figure 12: **Lorenz Curves of Annualised Lifetime Disposable and Equivalent Incomes of Men and Women**
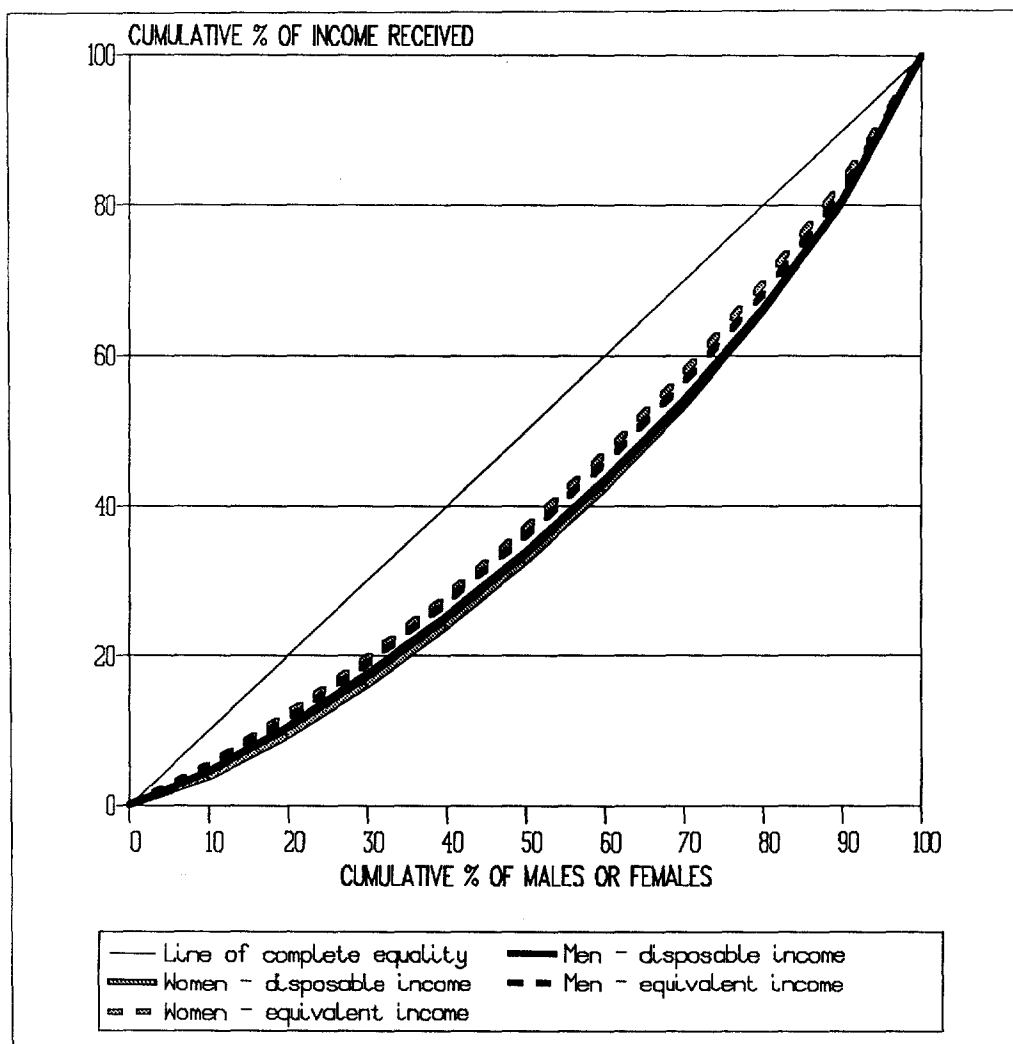
and women than the distribution of personal disposable income, with the shift in the Lorenz curves showing the combined effect of taking account of both income sharing within, and the composition of, the family unit. Interestingly, while the distribution of disposable income is more unequal amongst women than amongst men, the distribution of equivalent income is less unequal amongst women than amongst men, suggesting that the major inequalities in the earned income of women are offset by sharing in the incomes of spouses.

In addition, although the lifetime standard of living of men is higher, the disparity is much less than a comparison of the personal disposable incomes of men and women might suggest. Figure 13 contrasts the absolute levels of average personal disposable income and family equivalent disposable income received by women in each decile of female annualised lifetime equivalent income with those received by men in comparable male deciles. While the average disposable income received by women in each decile is about 65 to 70 per cent of that of men in the comparable male decile of lifetime equivalent income, the equivalent income of women is some 90 per cent of that of men in comparable deciles.

These results assume, of course, that income is shared equally within the family unit. Research by Pahl (1990), Edwards (1981) and Vogler (1989) has suggested that this is not always the case, and that women tend to fare less well than men, particularly if they are not contributing to earned income. Consequently, the bottom lines in Tables 1 and 3 show the effects of changing the assumption that income is equally shared between married couples, instead assuming that income is split 60:40 in the husband's favour (the same Australian government equivalence scale is used in both cases).

As expected, assuming less equal sharing of income within the family unit results in an increase in the equivalent disposable incomes of men and a decrease in women's incomes. For example, the equivalent income of men ranked in the bottom decile of all men rises by about 11 per cent to $11,200 when a 60:40 income split is assumed, while that of women in the bottom decile of women falls by almost 15 per cent to $8540. Thus, if this degree of unequal sharing is assumed, the equivalent incomes of women in the bottom decile amount to only three-quarters of the income of men in the lowest decile of men - a rather more unequal result than the 95 per cent of the incomes of such men shown in Figure 13. On average, when husbands were assumed to receive 60 per cent of the combined income of couples, the average equivalent income of women fell to only 71 per cent of that of men. This suggests that income distribution might be more sensitive to the assumed distribution of income within the family than many economists have traditionally appreciated.

5.4   The Distribution of Lifetime Income for the Entire Cohort

While the preceding analysis has examined the lifetime incomes of men and women separately, most analyses of income distribution consider the entire population. Consequently, this section briefly examines the characteristics of lifetime income for the whole of the simulated cohort. Even though the entire cohort is ranked by annualised equivalent income, so that the enormous differences between the personal incomes of men and women are not as apparent as if the cohort was ranked by a measure which did not take account of family circumstances, women still tend to be clustered at the bottom of the income distribution and men at the top.

Almost one-quarter of all men were ranked in the top two deciles of annualised equivalent income, and 13 per cent of all men were in the top decile (Table 5). In

Figure 13: Annualised Lifetime Disposable and Equivalent Incomes of Women, Ranked by Deciles of Annualised Equivalent Income, as Percentage of Comparable Incomes of Men
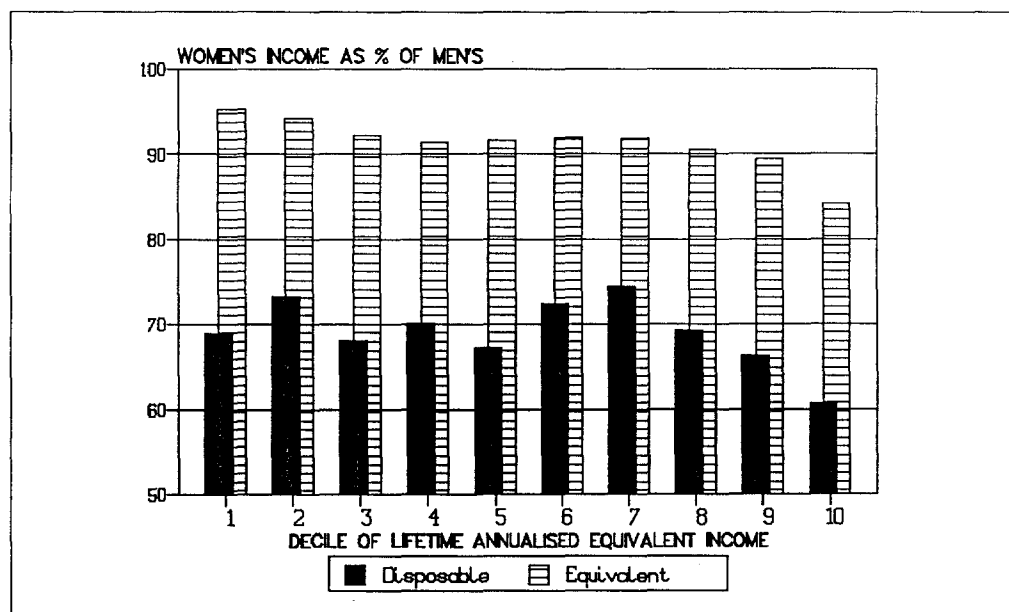
contrast, only 7 per cent of all women scraped into the top decile, while 23 per cent were clustered in the bottom quintile. Despite this, men still comprised 43 per cent of the bottom decile of annualised equivalent income, and such men amounted to just under 9 per cent of all men.

As one would expect, the 'averaging' of the incomes of men and women means that the original, gross and disposable incomes by decile are higher than those recorded for women only in Table 3 and lower than those achieved by men only in Table 1. Similarly, average cash transfers are lower and income taxes paid by each decile are higher. However, combining the records of men and women created greater dispersion of income across deciles, so that the annualised lifetime disposable income of the top decile was 3.6 times greater than that of the bottom decile.

For the population as a whole, the distribution of annualised lifetime disposable income was therefore still very unequal, with the bottom 10 per cent of all individuals receiving 3.7 per cent of all such disposable income. The bottom half of the income distribution received just under one-third of all annualised lifetime disposable income, while the top decile received one-fifth of all such income.

Those in the top decile again tended to spend more years on average participating in the labour force, with the bottom decile participating in the labour force for an hour or more for only 33.1 years, while for the top decile the comparable figure was 42.9 years. Hours worked per year once in the labour force also showed great variation,

Table 5: Annualised Lifetime Income Characteristics of the Cohort, Ranked by Deciles of Annualised Lifetime Equivalent Disposable Income

Measure	Decile of Annualised Lifetime Equivalent Disposable Income										
	1	2	3	4	5	6	7	8	9	10	Average
Earnings	4,785	6,375	7,740	8,860	10,235	11,650	13,240	14,555	17,985	25,640	12,110
Investment income	270	390	560	670	825	1,195	1,670	2,155	3,270	5,430	1,645
Superannuation	25	20	60	150	100	125	195	425	605	2,000	370
Original Income[a]	5,085	6,810	8,375	9,720	11,185	13,000	15,135	17,155	21,880	33,090	14,145
Invalid pension	35	25	35	15	10	5	5	15	5	0	15
Age pension	810	1,050	945	910	795	690	555	365	240	70	645
Sole parents pension	255	230	195	160	120	85	75	70	60	30	125
Unemployment and other benefits	140	110	105	90	95	100	80	80	75	50	90
Child transfers (FA, FIS)	95	110	100	100	90	80	85	75	75	50	85
Education transfers	45	40	30	35	25	30	30	25	25	15	30
Total Cash Transfers	1,380	1,565	1,410	1,305	1,135	995	835	625	480	215	995
Gross Income	6,465	8,375	9,785	11,025	12,320	13,995	15,970	17,775	22,360	33,305	15,140
Income tax paid	770	1,210	1,655	2,085	2,550	3,195	4,000	4,785	6,895	12,675	3,980
Disposable Income	5,695	7,165	8,130	8,945	9,770	10,800	11,970	12,990	15,465	20,635	11,160
Shared disposable income (family unit)	5,960	7,500	8,400	9,240	10,060	10,880	11,900	12,925	14,860	19,225	11,095
Equivalent disposable income (family unit)	9,790	12,385	13,895	15,410	16,840	18,360	20,025	22,155	25,310	32,990	18,720
Equivalent inc.- 60:40 split within couples	9,690	12,175	13,845	15,300	16,915	18,405	20,030	22,275	25,465	33,735	18,785
Lifetime education services income	37,930	38,725	39,310	40,065	41,500	42,125	42,120	41,115	43,360	44,090	41,035
Average years in labour force	33.1	36.2	36.5	37.8	39.9	41.2	40.6	40.5	40.9	42.9	39.0
Average hours in labour force	1750	1765	1785	1820	1855	1845	1850	1870	1870	1920	1830
Average hours employed	1630	1675	1705	1730	1785	1770	1790	1810	1810	1880	1760
Average hourly wage rate	5.40	6.55	7.35	8.15	8.50	9.65	10.60	11.45	13.50	17.95	9.90
Average years of education	13.4	13.5	13.6	13.8	14.0	14.1	14.1	14.0	14.3	14.5	13.9
Per cent female	56.8	58.4	55.9	53.7	50.6	48.4	50.6	45.8	46.3	34.3	50.1
Av. no. of yrs dependent children present	17.7	19.3	17.9	18.7	18.4	17.9	17.8	16.7	17.6	14.7	17.7

Note: (a)   Includes maintenance. All income figures rounded to nearest $5. Totals may not sum due to rounding.

ranging from 1750 hours per year on average for those in the bottom decile to 1920 hours for those in the top decile - a difference of about 10 per cent. Average hourly wage rates also varied greatly, from $5.40 for those in the bottom decile to almost $18 an hour for those in the top decile.

Years of education were again strongly correlated with higher lifetime incomes, with the top decile undertaking an average 14.5 years of education, compared to the average for all males of 13.9 years and for the bottom decile of 13.4 years. The adverse impact of children upon lifetime monetary welfare was also apparent, with those in the top decile spending only 14.7 years in families with dependent children present - well below the population average of 17.7 years.

6 Conclusion

Even on a lifetime basis, major inequalities in income were apparent. Males in the top decile of male annualised lifetime equivalent income received almost six times as much pre-tax, pre-transfer income during each year of adult life as males in the bottom decile, while similar inequalities were observed for females. Higher lifetime original incomes were associated with higher earnings and investment income, and access to occupational superannuation. These factors were in turn correlated with education, family status and patterns of labour force participation.

The top 10 per cent of males, ranked by the amount of annualised original income received, gained almost one-quarter of all the lifetime original income received by males, while the bottom 10 per cent of all males received only three per cent of such income. Similarly, the top 10 per cent of females also gained one-quarter of lifetime original income, while those in the bottom 10 per cent reaped only two per cent of the total.

Both cash transfers and income taxes were progressive, and helped to offset these inequalities in factor income. For example, cash transfers accounted for 12 per cent of the average gross income received during each year of adult life by males in the top decile of annualised lifetime equivalent income, but declined sharply as income increased, to well under one per cent of the gross income of males in the top decile of equivalent income.

Average cash transfers received by women were about double those received by men, due to the combined effects of payment of child transfers to the mother, pensions for sole parents and widows, and greater age pension payments to women (due to their longer lifespans). Such transfers were again highly progressive, amounting to about 45 per cent of the total income received during each year of adult life for women in the bottom decile of annualised lifetime equivalent income, but only two per cent of the gross income of those in the top decile. Cash transfers thus made the lifetime distribution of income significantly more equal.

Income taxes were also progressive, amounting to 14 per cent of the gross income of males in the bottom decile of annualised lifetime equivalent income, and increasing

steadily to reach 41 per cent of gross income for those males in the top decile. The average rates paid by women were lower, due to their lower lifetime incomes, but still increased from 10 per cent of the gross income of females in the bottom decile to 32 per cent of gross income for females in the top decile of annualised lifetime equivalent income.

The joint impact of the higher income taxes paid and lower cash transfers received by men, resulted in males making a net loss from the operation of the tax-transfer system. Even those males in the lowest decile of lifetime equivalent income paid slightly more in income taxes every year on average than they received in cash transfers. In marked contrast, women in the bottom four deciles of female annualised lifetime equivalent income received more in cash transfers during each year of adult life than they paid in income tax. Only the top 50 per cent of women made a net loss.

The personal incomes received by males during their lifetimes were much higher than for females, with the annualised lifetime disposable income for males of $13,275 being about one-third higher than the average $9,050 received by females. However, once income sharing within families was taken into account, the differences between the lifetime standards of living of men and women were much less pronounced, with the average annualised equivalent incomes of women amounting to 90 per cent of those of men. This, however, assumed completely equal sharing of income between married couples. If a 60:40 split in favour of the husband was assumed, the average equivalent income received by women during each year of adult life fell to only 71 per cent of that received by men.

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Commercialisation of Government Business Enterprises: Implications for Disadvantaged Groups

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1 Introduction

The purpose of this paper is to analyse the conceptual framework underlying the commercialisation of government business enterprises (GBEs) and to focus in particular on the issue of non-commercial objectives of GBEs - that is, the question of 'Community Service Obligations' (CSOs). Most of the paper will be devoted to policy statements of the Commonwealth Government, though some reference will be made to the developments at the state government level as well. At the outset there is a need to both define and contextualise both the terms 'government business enterprises' and 'commercialisation'. Historically, 'government business enterprises' have been considered a subset of 'statutory authorities', with statutory authorities being distinguished from 'departments' on the basis that, unlike departments, their creation, structure and abolition derived from special Acts of Parliament. Within the set of statutory authorities a distinction has usually been made between 'general government authorities' and GBEs (sometimes also termed 'public trading enterprises').

The basis of this distinction was a commercial one: GBEs were government entitities which were expected to finance a significant proportion of their operations from trading activity (i.e. charging prices for their goods and services). Statutory authorities, on the other hand, were not expected to finance more than a small proportion of their operating expenses from user charges, if indeed any proportion at all. In this sense, 'general government (statutory) authorities' had more in common with ordinary departments than they did with GBEs. Although they had a strong commercial orientation, most GBEs were thought to have a wider set of objectives or at least characteristics, that were not necessarily consistent with profit maximisation. The delineation of these wider features in the 1980s will be a focus of this paper.

In 1986 there were over 250 statutory authorities at the Commonwealth level (familiar ones including the ABC, CSIRO, ABS, the Arbitration Commission). In the same year there were 18 major Commonwealth GBEs, the biggest and most familiar being the Commonwealth Bank, Telecom, OTC, Australia Post, the Australian National Line (ANL), the Australian National Railways Commission

(AN), TAA and Qantas. Except for the Commonwealth Bank, all of these major Commonwealth GBEs are within the transport and communications portfolio (Minister for Finance, 1986: 2). At the State government level, GBEs are even more important, encompassing (for example) the electricity, water supply and public transport industries.

For the purpose of this paper, it is important to recognise that, while such entitities might have been known as 'government business enterprises' by the mid-1980s and indeed much earlier, to many Australians these bodies historically were 'more than ordinary businesses'. Throughout their history they had a vague but nonetheless felt responsibility to uphold a mix of economic, social and overall national goals well beyond the essentially commercial expectations placed on private business. The exact nature of these wider responsibilities was seldom defined, partly because of the political differences that had grown up around the idea of a wider role. Perhaps the clearest example of this peculiar mix of ideological controversy, avoidance of definition and yet concrete practice of a wider role was the Commonwealth Bank.

2   The Push to a Smaller Public Sector

'Commercialisation' is a broad concept that has been applied not only to GBEs but to all forms of government, so much so as to begin to blur the distinction noted above in regard to commercial orientation.   In the case of the formerly weakly commercialised general government authorities and departments, the concept has meant a much greater reliance on direct charging of users for goods and services as a source of finance. In the case of GBEs, it has meant an even greater emphasis on profitability, together with (in many cases) actual 'corporatisation'. This has entailed a change in legislative and legal status, from that of statutory authority to that of 'government owned company', subject in the main to the provisions of the Companies Code governing publicly listed companies.

Commercialisation must be seen as an integral part of a wider strategy to reduce the size of the public sector and to provide new profit and investment opportunities for the private sector. In the case of the GBEs commercialisation has been shaped by two objectives:

> to achieve a much better fiscal return for the Government (elimination of subsidies, elimination of government lending, increases in dividends), and

> to reduce GBE input costs to business.

As part of the broad agenda, commercialisation has often been accompanied,in the case of GBEs, by related changes such as deregulation, including the introduction of greater competition in areas of GBE operation, and privatisation.   Again, the objectives behind these related changes have been to:

> produce fiscal savings (proceeds from privatisation), and

lower costs to business and, ostensibly to consumers (through greater competition).

Within this framework, the interest of business and government have the potential to conflict. For example, increased competition might drive GBE prices down but, consequently affect the revenue stream for government. Alternatively, there is the possibility that both business and government will win (through a combination of 'cream skimming' and rate rebalancing) at the expense of non-business customers. In the case of the Commonwealth Bank GBE, some submissions to the current Martin inquiry on competition in the Australian banking system post-deregulation points in this direction (e.g. Howard, 1991a). Alternatively, again, it is possible for the 'restructuring' associated with commercialisation and related changes to be centred on the cost side, especially labour.

The focus of this paper is how commercialisation has impacted on the established public policy role of entities such as Telecom and Australia Post, especially on their role in meeting the needs of groups that might be labelled as 'disadvantaged' in the marketplace.

3 Commercialisation of GBEs: The Commonwealth Framework

The Hawke Government's approach to the commercialisation of GBEs was spelt out in an October 1987 White Paper, *Policy Guidelines for Commonwealth Statutory Authorities and Government Business Enterprises*. In return for a reduction in day-to-day bureaucratic controls by the Minister and the Government over the GBE, the GBE was to be required to

> provide the Minister with a strategic corporate plan (incorporating 'the enterprise's broad investment, operational and financial intentions, and major operational targets')

and

> work towards an overall financial target agreed to in advance by the Minister (this taking the form 'of a specified rate of return on the enterprise's assets, funds employed or capital'). (Minister for Finance, 1987: 21)

The *Guidelines* combined tough-minded commercialism

> the financial target will be designed to achieve a satisfactory commercial return sufficient to justify the long-term retention of assets in the enterprise. (Minister for Finance, 1987: 22)

with an acceptance that an assessment of commercial performance would have to take account of

the extent to which, on the basis of Government policy, it is
required to meet any 'community service obligations' and to
observe residual central controls designed to achieve other non-
commercial objectives of the Government which adversely
affect its profitability. (Minister for Finance, 1987: 21)

To this end, GBEs were to report annually on the cost of meeting these non-
commercial obligations and hence their net success in meeting financial targets.

The *Guidelines* did not give a definition of 'community service obligations' but it is
clear that the the ultimate criterion of a CSO was a financial one. A later Treasury
paper stated the position clearly enough:

Formally an activity undertaken by a GBE is a CSO only if it
results from an explicit government direction or explicit
legislation, and if the enterprise would not have undertaken it,
if given the choice, because of the losses involved. (Treasury,
1990: 20)

This meant that CSOs were not only non-cost recovering but also not warranted on
wider commercial strategy (unlike some sub-economic activities which could be
regarded as 'loss-leader' investments).

The October 1987 White Paper, and the preceding discussion papers in 1986,
emphasised that the new guidelines were part of an overall 'managerialist' push for
greater 'efficiency and effectiveness'. The call was to 'let the managers manage' and
for the focus of the political executive (the Minister) to shift from inputs and
processes to 'outcomes' and 'results'. In academic and public policy debate in
Australia concerning the 'new managerialism' a key issue is whether the rhetoric of
'effectiveness' is mere lip-service. Is managerialism merely a respectable
smokescreen for economic rationalism and smaller government - 'the acceptable
face of new-right thinking', as Pollitt put it (Guille, 1990: 8)? Has 'effectiveness'
reporting amongst Commonwealth agencies in the late 1980s (for example, in the
annual Explanatory Notes) been anything more than 'efficiency' and financial
outcome reporting? In another paper (Howard, 1990) I have cautioned against a rush
to adverse judgement and have supplemented Alford's (1990: 1 and 14) counter-
findings with some further examples of reporting of effectiveness measurement in
non-financial terms.

In the case of the key 1986 - 1987 documents on GBEs, again it must be said that at
this point in time the language of the 'new managerialism' was still sufficiently
broad to allow **potentially** for consideration of non-financial criteria of performance.
Moreover, the space for such initiative was created by the explicit recognition in the
documents of 'Community Service Obligations' (instruments of 'national unity' and
'social equity'). At the same time, it would be fair to say that the predominant sense
was one of concern for commercial performance, with no **actual** effort to illustrate
the new management techniques in relation to social objectives and with the sense of
CSOs being residual and marginal, not all-pervasive to the rationale of the

enterprises. While the documents created the opportunity for a debate on the extent of existing CSOs - i.e., an opportunity to make explict what had previously often been ill-defined - they conveyed little or no sense of a Government keen to explore hitherto untapped needs for CSOs. The managerialist dynamics trumpeted in the documents - 'increasing the scope and incentive for entrepreneurial initiative', greater accountability for outcomes, and so on - appeared to be geared to commercial, not social horizons.

The 1987 framework began to take detailed shape with the release seven months later (May 1988) of a comprehensive Statement covering GBEs in the all-important transport and communications portfolio. This Statement by the Minister, *Reshaping the Transport and Communications Government Business Enterprises*, stayed very close to the 1987 framework and developed a rationale for the new 'let the managers manage' framework exclusively in terms of micro-economic arguments (reducing costs to lift international competitiveness). At the same time, however, compared to the 1987 document (issued by the Minister for Finance) there was a somewhat greater prominence given to the fact that

> the government will continue to have wider policy interests in its ownership of these enterprises, other than their individual commercial performance

and to the importance of extending the measurement and accountability culture to the measurement of outcomes in non-financial as well as financial terms

> In the new environment, what is important is that these wider interests be as clear as possible, be made as explicit as possible, and be fully reflected in the accountability framework and in the performance targets that are set. (Minister for Transport and Communications, 1988: 5)

The important general development announced in the Statement had to do with 'revised corporate and financial structures' - that is, corporatisation. The document laid down three principles, viz. that

> an incorporated company structure is appropriate for those enterprises in direct competition with private sector competitors;

> for enterprises which serve no explicit social objectives and have a well-developed commercial culture, an incorporated company structure is also appropriate;

> for enterprises which have clear community service obligations, direct statutory corporation status is preferred. (Minister for Transport and Communications, 1988: 6)

The main significance of incorporation lay in the fact that the enterprises - or, as they now would be called, 'government owned companies' - would be subject to the accounting and regulatory requirements of the Companies Code, subject to any legislative qualifications to the contrary. These requirements may be summed up as being more specific in regard to some forms of commercial information but virtually non-existent in regard to non-commercial information and outside the ambit of much administrative law applying to departments and statutory authorities (Donnelly, 1991).

The Statement went on to announce that ANL and OTC would join Qantas, AUSSAT and Australian Airlines as incorporated companies and that Telecom and Australia Post, while remaining statutory corporations, would be given a commercial-oriented structure, one which brought with it

> the usual commercial obligations to pay appropriate dividends
> on shareholders' funds while providing for future investment
> needs. (Minister for Transport and Communications, 1988: 6)

This commercial emphasis was sustained in the discussion on 'new planning and accountability mechanisms', both for GBEs in general and even for Telecom in particular. Almost all discussion was focused on financial reporting. Passing reference was made to 'any other performance indicators which are relevant to the enterprise' and to the costing of community service obligations, but no reference was made to the question of the definition of CSOs in the first place (p.7). The section on Telecom specified that

> Consistent with the objectives of the GBE reforms, Telecom
> should aim to achieve a level of profitability comparable with
> those of the leading telecommunications companies in other
> parts   of   the   world.   (Minister   for   Transport   and
> Communications, 1988: 24)

What has been the Hawke Government's stance since 1988? In fact, no general overview of progress has been published and none seems underway (author interview with Treasury official, June 1991). General methodological perspectives have been developed by the Departments of Treasury and Finance in relation to one key aspect of the 1987 'reform package' - the definition, costing and funding of CSOs. These perspectives - outlined in submissions to the current Joint Parliamentary Committee on Public Accounts (JCPA) Inquiry into the Social Responsibilities of Commonwealth Statutory Authorities and Government Business Enterprises - will be discussed below. But there does not appear to be any overall official assessment of the impact to date of the new commercialisation of GBEs on the pricing, quantity and quality of services for different categories of GBE consumers or of progress in the definition, costing and funding of CSOs across the GBE sector at Commonwealth and State level. In contrast, on the basis of various sources - Budget Papers, Industry Commission Reports EPAC reports - it can be said that various Commonwealth authorities are carefully monitoring GBE trends in regard to 'rate of return' and 'productivity'.

One pattern to emerge from this monitoring and analysis is that for most GBEs the rate of return (on capital, turnover, etc.) has been increasing in the mid-to-late 1980s. The improvement has varied, being greater for Commonwealth than for State GBEs - and some analysts, notably the Industry Commission, remain highly critical of the amount of improvement so far achieved. From a distributional perspective, the key question is whether this improvement has been achieved by means of higher prices or declining service for certain categories of consumers. In particular, given the aim of reducing the costs of GBE inputs to the business sector, have price increases been relatively higher in the non-business clientele?

For the purpose of this paper detailed price data has not been sought (and has not been collated across the GBE sector, summarised and published by any official body). There are at least two reasons, however, why increased rates of return do not appear to have been achieved in the main by price or service provision discrimination against certain categories of consumers. The first is the unassailable evidence that massive cost savings have been achieved through very substantial reductions in staffing levels (EPAC, 1990: 61-2). The second is the fact of the imposition of 'price caps' on some key GBEs at Commonwealth and State level. In other words, the pain of commercialisation is in the main being borne by retrenched and retained staff, not by customers. This is not to say that 'rate rebalancing' and the reduction or elimination of some cross-subsidies has not occurred; but the evidence for this is certainly not so immediately obvious as the evidence of staff 'downsizing'.

4 'Community Service Obligations'

The term 'community service obligations' appears to have emerged in Australian public policy discourse in the mid-1980s, after having some currency in the United Kingdom. To economic rationalists, especially their econocratic ranks within government, the term might well seem a generous concession to social policy; in Michael Pusey's view, economic rationalists look upon society as 'some kind of stubbornly resisting sludge that variously inhibits and obstructs the economy' (Pusey, 1990: 8). To others, drawn to the broader social policy and nationalist rhetoric historically characteristic of GBEs in Australia, the term CSOs has a residualist and begrudging sense about it. The balance of this paper examines key evidence of Commonwealth policy and practice in regard to the definition, costing and funding of CSOs to assess the likely impact of the new commercialisation regime on disadvantaged groups. The best guide to overall Commonwealth thinking seen to date is the Treasury paper 'Social Responsibilities and Performance Measurement for Government Business Enterprises' published in the Treasury journal *Economic Round-Up* in May 1990. According to a Treasury source (interview with author) this paper is still representative of Treasury thinking. Its arguments formed the nucleus of the Department of Finance's submission in January 1991 to the JCPA 'Social Responsibility' inquiry mentioned above. Accordingly, the remainder of this paper will summarise and comment on this Treasury statement.

4.1   Definitions and Scope

To begin with, the Treasury paper contended that because the purpose of defining CSOs is to arrive at a precise estimate of their financial cost, CSOs should be defined in legislation or regulation as precisely and explicitly as possible. The Treasury paper then enunciated a further principle, one designed to leave open the option of circumventing GBE CSOs altogether.

> Precise specification of CSOs should ideally be carried out in the light of clearly defined social policy objectives. Once this is done, the cost effectiveness of alternative means of achieving those objectives can be considered. (Treasury, 1990: 22)

According to the Treasury paper, implementation of the 1987 plan to crystallise CSOs had been disappointing.

> Despite improvements resulting from this reform process, however, many existing government directions or legislative requirements to provide CSO's are still loosely defined. For instance:
>
> *   Telecom is required (under the Telecommunications Corporation Act 1989) to supply a standard telephone service 'which is reasonably accessible to all people in Australia on an equitable basis';
>
> *   ... in (this case) service performance standards must 'reasonably meet the social, industrial and commercial needs of the Australian community'.
>
> These legislated obligations do not unambiguously define either the service standard or the degree of accessibility required. For example, there is the question whether services in rural areas are to be provided to every house or to within a certain distance. (Treasury, 1990: 21)

To the Treasury, loose definition of CSOs promotes inefficiency. Because the onus of interpretation, and hence the political pressure is on the GBE not the government, there is an incentive on the part of the GBE to underprice. Moreover, the ambiguity gives the GBE a convenient excuse for internal inefficiencies in the enterprise as a whole. (This point has been taken up by the Budget Papers in relation to State transport GBEs.)

But Treasury might have had a second reason for its desire for precision and transparency. It might have judged these attributes would tend to produce a narrower range of accredited CSOs (given that the political process for finalising CSOs would involve a trade-off between needs and costs). However, it is noteworthy that, at least in the key case of telecommunications - where the debate

over CSOs has been the most detailed of any GBE area - precision of definition is also strongly supported by advocates of a much wider range of CSOs than that foreshadowed by the Government to date.

To detail this example further: the 1989 Telecommunications Act (which gave effect to the 1987 - 1988 framework) defined the 'standard telephone service' , the main universal service obligation on Telecom in the Act, as the 'public switched telephone service'. Later in 1989 in a key report on the measurement of Telecom CSOs, the Bureau of Transport and Communications Economics took the process of specification much further by narrowing down the meaning of 'standard telephone service' to

> a dedicated exchange line, household or business wiring and the first telephone instrument when required for access to the public switched voice network ... (Communications Law Centre, 1990: 13).

Over the next two years the effect of this act of specification was to stimulate various public policy analysts to propose a much broader set of specifications. For Telecom itself, community service obligations extended well into the area of industry policy (such as purchase of local technology). For analysts associated with consumer organisations, the suggested 'universal service' menu included additional specifications in regard to penetration, affordability, new technology (such as mobile phones, faxes), and quality-of-service levels. (Barr, 1991; Shaw, 1991; and other speakers at CTN Seminar, June 1991).

Debates such as these over minimum social needs and rights have normally been implicit in social policy formulation. The impact of the new commercialisation, with its overriding concern for financial accounting and transparency, is to 'raise the stakes' in these debates. Perhaps, too, there is an inherent 'narrowing effect', by virtue of the work entailed in specifying and costing any new proposal. Ultimately, however, accounting and transparency are symptoms or instruments, not causes of a wider political antipathy to collective welfare provision.

4.2   Measuring the Cost of CSOs

Having defined objectives and specified levels of service provision to accord with these objectives, the next step is to estimate the costs of these service levels. The accounting dilemmas involved in this step were highlighted by the dispute between Telecom and the Bureau of Transport and Communications Economics (BTCE) over the costing of Telecom's CSOs. The accounting part of the dispute concerned the allocation of overheads to the costing of unprofitable services, with Telecom arguing for a greater share of overheads than BTCE and with the Government siding with and legitimating the BTCE methodology. As the 1990 Treasury paper observed,

> Complications arise...for a multi-product firm where the same assets are used jointly to produce different products. In these

> circumstances, it is not clear which assets relate to which
> services. This complication arises for GBEs ...when assets are
> used jointly by CSO services and commercial services.
> (Treasury, 1990: 25)

The Paper went on to admit that the accurate identification of costs required very
sophisticated information systems

> It also involves the fundamental requirement to have
> accounting and management systems that are sufficiently
> disaggregated and decentralised to allow economic costs to be
> matched with revenue produced by separate and identifiable
> operating units or profit centres. (Treasury, 1990: 26)

4.3   Funding of CSOs

The balance of the May 1990 Treasury paper was taken up with the question that had
not been confronted in the major 1987 and 1988 policy statements, viz., the
contentious issue of methods of financing agreed-upon CSOs. The paper discussed
four main options; these will be analysed here in turn, with Treasury comments
being compared to perspectives of other analysts, mainly organisations active in the
telecommunications area.

Continuation of Cross-Subsidies

This option entails losses on CSO services being offset by higher prices on revenue-
producing services. The Treasury paper's analysis of this option presented no
positive arguments and two negative arguments. First, it argued that this option
entailed greater 'distortions' in production decisions and resource use than other
options.

> The over-pricing effect causes the affected consumers to
> restrict their usage of the product, even though they might
> value additional units more than it costs to produce them,
> resulting in a loss of welfare to the overall community.
> (Treasury, 1990: 27)

Note the language and assumptions of neo-classical welfare economics here. The
pre-existing pattern of income distribution and demand is seen as somehow natural
or non-distorted. Demand patterns are seen as functions of consumer valuation of
products, not of affordability. The possibility that usage patterns of high income
earners might not decrease because of higher prices is not considered.

The second disadvantage of cross-subsidies, according to Treasury, was that cross-
subsidies served as an excuse for the retention of a government monopoly. In turn,
this acted as an inducement to inefficiencies and 'slower adoption of new

technologies or provision of new products'. While the argument about monopoly and inefficiency was sound, the claim that competition necessarily yielded new 'new products' is more open to question.

Treasury did not refer to any of the arguments in favour of cross-subsidies. These include the following:

> in many cases users paying above-cost prices (i.e. subsidies) derive benefit from the increase in the size of the market (e.g. in telecommunications, certain overhead costs per capita are decreased, while the utility of the product is increased);

> it is normal commercial practice to carry sub-economic units for overall long-term commercial benefit; in some cases, this will involve artificially high prices in other areas of the business;

> reliance on cross-subsidies to redistribute income should not be seen as an   alternative to marginal cost pricing; rather, it provides a set of distributional weights by which prices to users should be varied around marginal cost' (Ergas, 1985: 106);

> full identification and costing of cross-subsidies is extremely difficult and may in many cases be impossible; in some industries technological change is intensifying this problem, despite the growing sophistications of computer-based financial information systems (e.g. Garnham 1988: 13); and

> cross-subsidies avoid the very considerable administrative costs of direct budget funding (see below).

Direct Budget Funding

The Treasury paper next discussed funding of CSOs by the Government through the Budget. The paper recognised that such budget expenditure would require, directly or indirectly, some form of increased taxation but it elaborated on why this would entail less distortion than a cross-subsidy internal to the GBE:

> The general taxation effect is only a marginal addition to generally applicable taxation arrangements, whereas the cross-subsidy effect falls on a relatively small group of consumers of a particular good or service. (Treasury, 1990: 28)

The Treasury paper then discussed two sub-options a 'producer subsidy' and a 'consumer subsidy'. Treasury reiterated that the abandonment of GBE cross-subsidy would remove a major argument for a statutory monopoly. If, as a result, competitors emerged (and Treasury blithely asserted they would) then a further efficiency advantage would accrue through the government being able to

contract the provision of the CSO service to whichever
enterprise (public or private) can provide the service at the
lowest cost. (Treasury, 1990: 29)

Treasury, however, considered a subsidy direct to consumers to be preferable to a
producer subsidy. Its reason was that this approach put the spotlight for adequacy of
CSOs squarely where it belonged - on government, thus enabling the GBE to be
'free to concentrate on running its business commercially'. The real issue for
Treasury was whether the subsidy should be 'tied' (either in the form of a rebate or a
voucher) or untied, in the form of an income supplement. The Treasury
acknowledged that any form of a consumer subsidy would involve higher
administrative costs than a producer subsidy (Treasury, 1990: 28-30).

Treasury did not speculate on any inherent tendency of the political-budget process
to effect the level of the subsidy. Opponents of this option, however, stress the
'uncertainty' and 'vulnerability' associated with the maintenance of expenditure
programs in the context of appeals for tax relief. Guille is justified in ascribing the
same political assumption to economic rationalists:

Even being charitable it is difficult to avoid the impression that
market economists believe that people would prefer not to be
taxed. Reduction of government services could thus be
something of an ulterior motive underlying the elimination of
cross-subsidies. (Guille, 1990: 6)

Funding via a Lower Rate of Return by the GBE

Finally, the Treasury paper pointed to the fourth major option the GBE continuing
CSOs without funding, eliminating cross - subsidies and the Government accepting a
lower rate of return, on the basis of the GBE achieving a satisfactory 'imputed rate
of return' - i.e. after discounting for the losses on CSOs. Treasury recognised that
this approach ultimately would have implications for capital growth and long-term
market share of the GBE, though it did not point out how pressing this problem
would be in a deregulated, competitive market (Treasury, 1990: 32-4).

In its submission to the JCPA 'Social Responsibility of GBEs' inquiry in January
1991 the Department of Finance re-iterated the three broad options above canvassed
by Treasury. Although less tendentious in its language than the Treasury paper, the
submission did flag a preference for budget funding from general revenue, with the
proviso that CSO losses by GBEs be subjected to close auditing and (in a non-
monopolistic market) 'tendering' (JCPA, 1991: 515-8).

To date the major Commonwealth initiative on funding of CSOs has come in the
1991 telecommunications legislation (currently before Parliament). The legislation
will provide for a combination of the first two approaches above. To fund the
'standard telephone service', as defined in the 1989 legislation, cross-subsidies will
be retained and applied to the second carrier, by means of a levy. But for any

enlargement of target populations earmarked for concessional prices (i.e. below the standard range of prices) or for other assistance, budget subsidies will be employed. The first half of this arrangement has pleased some consumer advocates, but not the second.

5 Conclusion

There is little doubt that the new commercialisation regime will result in a much greater scrutiny of the financial cost of all aspects of the operations of GBEs. On the basis of statistics on labour-force reductions already achieved or in the pipeline, the main adverse impact of the new commercialisation of GBEs is likely to be felt by retrenched and retained workers. So long as governments feel the need to retain welfarist rhetoric such as 'social justice', however, the new commercialisation regime will provide the opportunity for interest groups to pressure the Government to honour its residualist rhetoric of CSOs and examine and define explicitly what has often been implicit in the past, namely the wider social and national goals of GBEs.

Given the current political dominance of economic rationalist mind-sets, a fairly narrow range of CSOs are likely to emerge from any such examination, despite the efforts of consumer and welfare lobby groups. Moreover, these CSOs are likely to be funded by government budget subsidies, and as a result are likely to be vulnerable to the pressures for tax and public expenditure restraint. Advocates of the use of GBE cross-subsidies will have to devote more effort to economic, as opposed to political arguments in favour of the retention of the cross-subsidy method of funding. Part of this effort should involve greater knowledge and expose of the assumptions of neo-classical welfare economic philosophy.

Outside the fairly narrow boundaries of CSOs the Commonwealth and State governments are likely to preside over considerable 'rate rebalancing' by GBEs. On the basis of evidence not considered above, the losers in this elimination of historic cross-subsidies will be groups with heterogeneous characteristics, but not necessarily those whom social policy analysts often classify as 'disadvantaged'.

In the coming period it is possible that the commercialisation of GBEs will be overshadowed by another component of the commercialisation of government - the introduction or expansion of 'user pays' policies in the 'General Government' sector. The issues unfolding in relation to charging for services of departments and statutory authorities, however, is a subject for a separate paper (see Howard, 1991b).

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Long-Term Unemployment Benefit Recipients: The Impact of NEWSTART and Economic Conditions

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1 Introduction

1.1 The NEWSTART Program

NEWSTART was a joint Department of Social Security (DSS)/Department of Employment, Education and Training (DEET) program which began in February 1989. Its primary objectives were to assist and encourage the long-term unemployed into employment and reduce dependency on unemployment benefit (UB).

The program included:

- joint Commonwealth Employment Service (CES)/DSS intensive interviews of around 40,000 clients each year and follow-up of those requiring further counselling and assistance;

- improved information provision on options/opportunities available to the long-term UB client group;

- around 25,000 additional labour market places annually for the long-term unemployed, incorporating both work experience and training opportunities;

- a job placement and community awareness strategy; and

- new transition-to-work incentives in the UB system, including a $100 employment entry payment.

At the start of the program the NEWSTART target group was set as unemployment beneficiaries aged 21-54 who had been in receipt of benefit for 12 months or more and in January 1990 was expanded to include 18-20 year olds.

NEWSTART was overtaken on 1 July 1991 by the Newstart strategy which replaces the Unemployment Benefit arrangements with a two-tiered payment structure and more intensive labour market program intervention for the long-term unemployed and those in the short-term unemployed categories who are at risk of long-term unemployment.

1.2 The Program Environment

The NEWSTART program was a response to the apparent need for more intensive measures to assist the long-term unemployed to access employment opportunities.

NEWSTART was introduced in early 1989 against the background of limited decline in the number of long-term UB recipients over the previous four to five years. The proportion of long-term UB recipients in the total UB population had risen to peak not much below 40 per cent just a few months prior to introduction of the program (see Figure 1). This was in the face of high economic and employment growth in Australia since 1984 and a considerable expansion of labour market program expenditure for the unemployed after 1983.

Since its introduction, NEWSTART has operated within both a strong employment market between February 1989 and July 1990 (when seasonally adjusted ABS full-time employment increased by on average 11,200 a month) and a poor employment market from July 1990 to the present (when full-time employment declined by an average 25,300 each month). Over the entire period, the seasonally adjusted ABS full-time employment rate declined from 6.7 per cent in February 1989 to the low point of 5.7 per cent by October 1989 before moving up to 10.1 per cent in May 1991.

The long-term UB population (which is larger than just the NEWSTART-eligible group) has also declined considerably over this period, falling from 159,900 in February 1989 to its lowest point in recent times of 113,600 in May 1990 before increasing to 128,000 in February 1991 (latest data available).

These trends have been influenced by both general economic and labour market conditions as well as the program assistance provided as part of the NEWSTART strategy. This paper does not attempt to estimate the impact of these separate elements on the number of long-term UB recipients, but does provide some preliminary indications of the impact of NEWSTART within different economic conditions. The more comprehensive evaluation of the NEWSTART strategy which is currently being undertaken will focus on the larger issue of the total impact of NEWSTART program on the long-term UB population.

Figure 1: Number and Proportion of Long-Term Unemployment Beneficiaries: February 1982 to February 1991
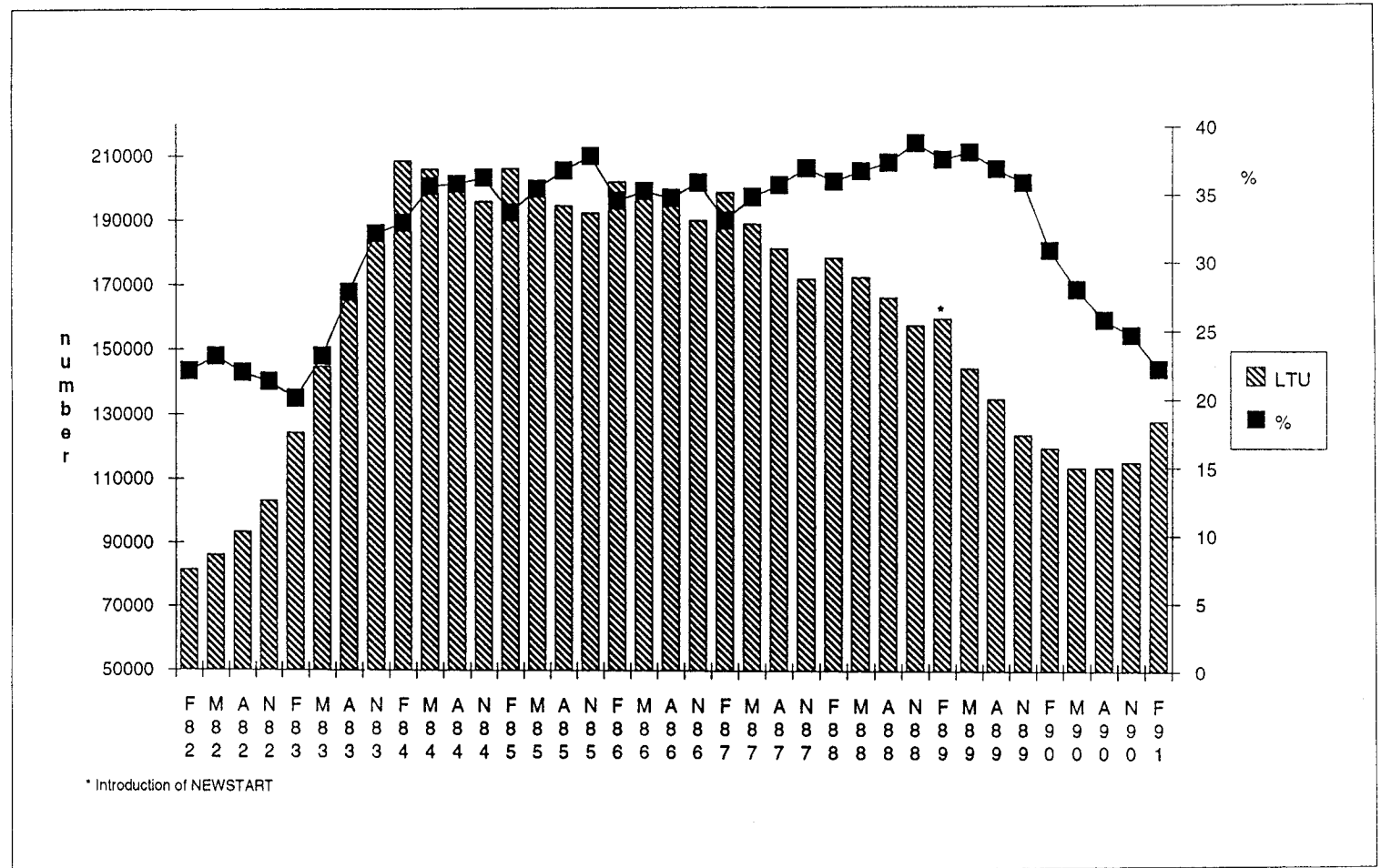
There have been some shortfalls in the take-up and participation of eligible individuals in some of the initiatives which comprise NEWSTART. The number of joint interviews scheduled for the first five months of the program was well below expectations as implementation of the program settled in and with widespread industrial action predominantly in DSS in NSW. Since that time, the target number of joint interviews has been reached. The number of labour market program placements has been well below expectations, with shortfalls particularly in the number of long-term UB recipients gaining a place in the JOBSTART and Formal Training Allowance (FTA) - eligible SkillShare programs. Take-up of the $100 employment entry payment by those terminating from UB has improved over the life of the program as more people became aware of it. Steps were taken to improve employer and community awareness of the plight of the long-term unemployed, but only limited progress was made on this in the time available.

The broader evaluation strategy for NEWSTART includes regular statistical monitoring of program participation and outcomes, a series of State and regional office visits by DSS and DEET officers to investigate how the program is being run and surveys of NEWSTART participants and other long-term UB clients and employers to gauge their attitudes towards the long-term unemployed and NEWSTART.

This paper reports some of the findings from the two surveys of NEWSTART participants and other long-term unemployed conducted with separate samples in March/April 1990 and February/March 1991.

2   The Surveys

The NEWSTART surveys have been designed to try to isolate the effect of the
· program by sampling a group of long-term unemployed who took part in the NEWSTART intensive joint DSS/CES interviews and following them up some (6-7) months later, and doing the same for an equal size group of long-term unemployed who did not take part in the intensive interviews. In addition, the surveys provide qualitative information, which is not available from the monitoring statistics, on the long-term unemployed's knowledge of and attitude to NEWSTART and on perceptions of their problems in finding employment.

The two surveys have also been undertaken in quite different economic and labour market environments. The early 1990 survey relates to the end of the 1987-90 economic boom while the 1991 survey records information from the midst of the 1990-91 recession. It is this aspect which has the potential to provide interesting results, noting how changes in economic conditions can impact on general labour market performance and on the effectiveness of program interventions.

It is expected that the long-term unemployed in general will have lower employment outcomes in the recessionary environment than in conditions of economic growth. However, a priori, it is not clear whether the impact of the program will be greater or lesser in poor compared to good economic conditions. Active intervention for some

long-term unemployed may increase their attractiveness to employers or, alternatively, employers may have many job-ready short-term unemployed to choose from so that they do not want or need to risk hiring a person with a long spell of prior unemployment. The surveys provide an indication of the answer to this question.

The surveys were undertaken in comparable months of the year (March/April 1990 and February/March 1991), and comprised randomly-selected samples of 1500 each from the four groups of:

- persons who had a NEWSTART joint DSS/CES interview over a month in September/October 1989, surveyed in March/April 1990 (to be referred to as the **1990 Interview Sample**);

- those who were eligible for NEWSTART in September/October 1989 but did not receive a joint DSS/CES interview, surveyed in March/April 1990 (to be referred to as the **1990 Non-interview Sample**);

- persons who had a joint DSS/CES interview in August/September 1990, surveyed in February/March 1991 (to be referred to as the **1991 Interview Sample**); and

- those who were eligible for NEWSTART in August/September 1990 but did not receive a joint interview, surveyed in February/March 1991 (to be referred to as the **1991 Non-interview Sample**).

The survey was carried out by mail questionnaire, with two reminder letters sent out in the subsequent six weeks. In total, about 65-70 per cent of each of the four initial 1500 samples responded with answers that could be used. (Some of the non-interview group were excluded on the basis that they had received a joint interview prior to completing the questionnaire.)

3 The Survey Results

3.1 Characteristics of Samples

As a preliminary to the focus on the findings of the surveys, Table 1 presents information on demographic and other key characteristics of the Interview and Non-interview Samples for the 1990 and 1991 Surveys.

There is a very close match in the characteristics of the Interview Samples from the 1990 and 1991 Surveys and also for the Non-Interview Samples from these two surveys. The Table also shows very little difference in the characteristics of respondents to the two surveys, with the exception that the second survey included 18-20 year olds who were only added to the NEWSTART-eligible target group after January 1990.

Table 1: Characteristics of Survey Respondents

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
Sex				
Female	25	22	24	23
Male	75	78	76	77
Marital Status				
Married/Defacto	39	44	41	41
Single/Widowed/Divorced/Separated	56	51	55	54
Not answered	5	5	4	5
Country of Birth				
Aboriginal/Torres Strait Islander	2	4	2	3
Other Australians	71	65	71	68
Asia	10	15	11	15
Europe	15	14	13	12
Other	4	2	3	2
Age Group				
18-20	-	-	5	6
21-24	18	14	19	14
25-34	39	36	33	31
35-44	27	28	26	26
45-54	17	23	18	23
Duration of UB				
1 - 2 years	40	46	38	48
2 - 5 years	43	37	44	38
5+ years	18	17	18	14
Highest Education				
No schooling	-	1	1	1
Primary	11	16	13	15
Junior High	44	39	42	38
Senior High	29	25	28	31
Trade	7	10	8	7
Degree or Higher	4	3	3	2
Other	3	2	2	2
Not answered	2	4	2	3

There are a number of areas where there are differences between the average Interview Samples and the Non-interview Samples, suggesting some bias in the selection of the long-term UB clients for the joint DSS/CES interview. The Interview Samples have a higher concentration of Australian-born and a lower concentration of Asian-born than the Non-interview samples. Contrary to possible expectations about selecting the best of the long-term unemployed, the Interview Samples have a higher proportion of very long-duration UB recipients than the Non-

interview Samples, but this is counter-balanced to some extent by the higher proportion of 21-34 year olds and lower proportion of 45-54 year olds in the Interview Samples compared to the Non-interview Samples. Sensitivity studies using weighting techniques show that these minor differences between the samples do not prejudice the ensuing comparisons of views and outcomes of the Interview and Non-Interview Samples.

3.2 Assistance to Gain Employment

Those who were still unemployed at the time of the surveys were asked to indicate the type of help they required to get a job. The unemployed samples were asked to indicate all areas where they required assistance and not only the main type of help required.

As would be expected, there was little difference between the unemployed Interview and Non-interview Samples with respect to the type of assistance they stated that they required (Table 2). The data do provide an interesting result that just over one-quarter of long-term UB recipients wanted more training, around one-quarter wanted assistance with job search and just under one-quarter wanted work experience. Around 10 per cent wanted to pursue further formal education and just under 10 per cent responded that they required assistance with English language and writing skills.

It is interesting to note that more long-term UB recipients responded in the 1991 survey that they did not require assistance to get a job than responded this way in the 1990 survey, despite the clear deterioration in the job market between these two periods. This may partly reflect operation of a discouraged worker effect.

These results can be contrasted with the labour market assistance provided to all survey respondents (not just those currently unemployed), as shown in Table 3. Those who attended a DSS/CES joint interview received considerably more CES labour market program assistance than the non-interview group especially in the distribution of training places. This was expected as the interview is meant to focus attention on the needs of the unemployed client and how to best equip them for the task of obtaining employment, although the extent of the difference between the two groups was a little surprising. There is no clear indication of how interview selection/attendance influences the opportunity for the CES to refer unemployed persons to a job. The 1990 survey results indicate that those who received an interview had a relatively high probability of getting a referral from the CES to a job interview soon after the NEWSTART interview. However, by 1991 the situation had deteriorated with nearly a 50 per cent reduction (compared to 1990) in the proportion of the Interview Sample referred by the CES to a job interview after the NEWSTART interview. However, as some contrast, there was no discernible change in the referral of the Non-interview Sample to a job interview by the CES over a six month period, comparing 1990 with 1991.

Table 2: Type of Help the Unemployed Stated they Required

| | 1990 Survey | | 1991 Survey | |
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
No Help Required	13	14	17	19
Training	27	25	27	28
Job Search	24	24	24	24
Work Experience	24	21	21	22
Transport	14	18	18	18
Further Formal Education	9	9	9	9
English Language/Writing	9	9	7	8
Child Care	1	1	1	1
Other	3	3	2	3

Table 3: Assistance Provided in Previous 6 months[a]

| | 1990 Survey | | 1991 Survey | |
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
CES-arranged Job Interview	30	25	17	24
Training	30	6	30	5
Job club/Job Search	9	2	8	2
JOBSTART/Subsidised Work	9	5	10	6

Note: (a)   Different questions were asked of the Interview and Non-Interview Samples, so the results between the two samples are not directly comparable. The Interview Sample were asked to list any assistance provided after the Interview and since the interview, while the Non-interview Sample were asked to indicate assistance received in the previous 6 months.

The Interview and Non-interview Samples were asked to provide an indication of the usefulness of any assistance received from DSS and/or the CES (Table 4). A clear majority **of those who received some assistance** perceived that it had helped their chances of getting a job. There was little difference between the Interview and Non-interview samples on this aspect and negligible change between the two survey periods. The other aspect of note from these data is that a large proportion of the Non-interview Sample who received no assistance from DSS or CES related to job search, although the proportion did decline between the 1990 and 1991 Surveys.

Table 4: Whether Any Help from DSS or CES Improved Chances of Getting a Job

| | 1990 Survey | | 1991 Survey | |
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
No assistance received	n.a.	44	n.a.	37
Helped a great deal	13	6	10	7
Of some help	49	27	50	29
No help at all	31	20	34	24
Did not attend interview	5	n.a.	4	n.a.
Not answered	2	4	3	3

All survey respondents were asked an open-ended question about any suggestions they had for improving Government assistance to the unemployed. While a large proportion of survey respondents did not answer this question, the results for those who did are presented in Table 5. The data show that more or improved training, improved CES/DSS staff attitudes and more help for the older unemployed were the key aspects identified by respondents. However, the large number not answering this question raises some questions over the representativeness of these results.

3.3 Job Search Activity by the Long-Term Unemployed

Some limited information was also obtained on the job search activity of the long-term unemployed, with respect to the amount of times they visited the CES to view the self-service job vacancy boards or use other CES services (Table 6) and the lowest pre-tax wage they would be prepared to accept for a full-time job (Table 7).

The vast majority (70 per cent) of long-term UB clients visited the CES at least once a week and a further 20 per cent visited the CES at least once a fortnight. It was anticipated that almost all would visit the CES at least once a fortnight, but it was surprising that nearly one-third stated that they visited the CES on average more than once a week. It is expected that some people living in rural or remote areas which are not well serviced by a local CES officer are reflected in the small proportion who responded that they visited the CES very sparingly or never. Comparing the 1990 and 1991 survey results, there has been no decline in the intensity of visiting the CES by the long-term unemployed, despite the marked deterioration in the labour market over this period. There was no difference in the frequency of CES visiting between the Interview and the Non-interview Samples.

Those who were unemployed at the time of the surveys were also asked what was the lowest pre-tax wage they would accept for a full-time job. Again, there was no difference between the Interview and the Non-interview Samples. The

Table 5: Suggestions for Improving Government Assistance to the Unemployed

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
More/improved training	8	11	9	8
Better CES/DSS staff attitudes	4	5	3	5
More help for older unemployed	3	5	3	6
More CES action to get jobs	3	3	3	3
Work for dole	2	3	2	2
Help for self-employed	2	2	2	3
Subsidise employers/boost employment	1	3	1	2
Help rural/country areas	1	2	1	1
Other answers	13	13	10	13
Not answered	69	62	77	70

Table 6: How Often Unemployed Visit CES to Look for Jobs

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
Several times per week	30	28	30	29
Once a week	42	41	40	41
Once a fortnight	18	18	19	16
Once a month	5	6	6	7
Less than once a month	3	5	3	4
Never	1	2	2	3

overwhelming majority (over 80 per cent) of those who answered this question stated that they would accept a full-time job which paid less than $450 a week and 45-50 per cent stated that they would accept a job with a wage level of under $350 a week.

Average weekly ordinary time earnings for adult persons were $525 per week in February 1991. Clearly, most of the survey respondents were prepared to take jobs paying less than this. However, average weekly earnings comparisons are not particularly appropriate for long-term unemployed persons who would be entering the labour market towards the bottom end of the wage spectrum. Other ABS data on the distribution of earnings show that the lowest decile of full-time adult non-

Table 7: Lowest Gross Weekly Wage Unemployed Prepared to Accept - Full-Time Job

| | 1990 Survey | | 1991 Survey | |
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
<$50	-	-	-	-
$50 - 150	1	-	1	1
$150 - 250	6	6	5	6
$250 - 350	33	34	29	26
$350 - 450	30	30	28	32
$450 - 550	7	10	11	11
$550+	2	2	2	3
Don't know	2	3	1	-
Not answered[a]	19	14	22	23

Note: (a) Includes those whose responses were unable to be coded.

managerial employees received less than $350 a week and the lowest quintile received less than $400 per week in May 1990 (latest data available). This suggests that on the whole most long-term UB recipients have very realistic expectations about prevailing market wages.

By contrast, the level of unemployment benefit was $125 per week for single adults and $225 per week for married adults (without children) in March 1990 and $140 per week and $250 per week respectively in March 1991.

3.4 Employment Status of Survey Respondents

Some of the more important results from these surveys relate to the employment experience of persons provided with various types of assistance, and how these assistance measures perform in a poor compared to a good employment market.

Table 8 provides information on the current labour force status of those who were long-term UB clients some 6-7 months prior to the survey. The data do not show dramatic differences but they do indicate that those who attended the interview were more likely to be employed at the time they responded to the questionnaire and less likely to be unemployed than the Non-interview Sample, in both the 1990 and 1991 survey. In line with the deterioration in labour market conditions, the 1991 survey respondents had lower employment outcomes than the 1990 survey respondents. However, the difference in the employment performance between the Interview and Non-interview Samples was somewhat greater in 1991 than in 1990.

Table 8: Labour Force Status at Time of Questionnaire Return

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
Employed	16	12	15	9
Unemployed	76	80	79	86
Sick/disabled	4	4	1	1
Sole Parent/Child Caring	1	1	-	-
Caring for other relative	-	-	-	-
Other answer	2	2	2	3
Not answered	1	1	2	1

Those who had an interview also showed a greater propensity to have been employed at some time during the 6-7 months prior to survey receipt than was the case with those who did not receive a joint DSS/CES interview (Table 9). There was a statistically significant difference between the Interview and Non-interview Samples with the Interview Sample having better employment performance by grouped durations of employment. Again, as expected, there was a greater proportion of the 1991 survey respondents who did not have employment in the previous 6-7 months than was the case for the 1990 survey, but as some contrast there was no difference in the proportion of 1990 and 1991 survey respondents who had six months or more employment over this time.

Around half of the employment obtained by survey respondents was only part-time work, and the proportion which was part-time increased from the 1990 and 1991 survey (Table 10). Correspondingly, the proportion of employment which was full-time was lower for the 1991 than the 1990 survey results, as expected with the labour market deterioration. However, as indicated from previous tables, somewhat more of those who received a joint interview did better than the non-interview sample with a much higher proportion receiving full-time employment and the differential holding at around the same level for the 1991 survey compared to the 1990 survey.

The results that the Interview Sample did better than the Non-interview Sample in terms of employment outcomes and that the net difference in employment outcomes was greater for the 1991 survey than the 1990 survey deserve further attention.

Table 11 provides some further disaggregations on the characteristics of the long-term unemployed and the particular type of assistance they received to assess whether this impacts on employment outcomes. The data refer only to those in the labour force at the time of questionnaire return and they are separated into employed and unemployed categories.

Table 9: Months Employed in Previous 6-7 Months

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
None	62	68	69	75
Less than one month	8	6	7	7
1 - <2 months	5	4	3	3
2 - <3 months	4	3	2	2
4 - <5 months	4	3	2	1
5 - <6 months	4	3	3	1
6+ months	7	7	7	8
Not answered	3	2	-	3

Table 10: Type of Employment for those Employed in Previous 6-7 Months

	1990 Survey		1991 Survey	
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
Full-time only	37	26	22	11
Part-time only	45	51	54	66
Mixture	11	17	13	9
Not answered	7	6	11	14

Receiving only a NEWSTART joint DSS/CES interview, without any further program assistance, does improve the employment rate for long-term unemployed. This was even more marked for the 1991 Survey samples than the 1990 survey.

JOBSTART has a significant impact on the employment outcomes for those who were given a joint interview but less of an impact on those not given an intensive interview. This could be due to the interview process better identifying those who would be expected to benefit from a wage experience placement than is possible in a normal CES labour market program referral.

The effectiveness of JOBSTART for the Interview Sample did decline, comparing the 1991 survey with the 1990 survey results, but it is still providing a substantial impetus to the employment outcomes for long-term unemployed.

Table 11: Employment Status at Time of Questionnaire Return

| | 1990 Survey | | 1991 Survey | |
	Interview Sample %	Non-interview Sample %	Interview Sample %	Non-interview Sample %
A. For those not given a Labour Market Program				
Employed	18	13	17	9
Unemployed	82	87	83	91
B. For those provided with JOBSTART				
Employed	33	13	25	13
Unemployed	67	87	75	87
C. For those provided with JOBTRAIN				
Employed	11	12	10	13
Unemployed	89	88	90	87
D. By duration of prior unemployment				
Duration 1 - <2 years				
Employed	22	17	21	10
Unemployed	78	83	79	90
Duration 2 - <5 years				
Employed	15	11	16	9
Unemployed	85	89	84	91
Duration 5+ years				
Employed	12	7	6	9
Unemployed	88	93	94	91

By contrast, the formal training program JOBTRAIN has had little impact on the employment outcomes of the long-term unemployed, for both the Interview and the Non-interview samples. The survey results also show that the employment outcomes for JOBTRAIN participants changed little between the 1990 and 1991 surveys,

The 1990 survey results show that duration of prior employment had little impact on the difference in employment outcomes between the Interview and the Non-interview Samples. However, by the time of the 1991 survey, it was clear that the long-term unemployed towards the shorter end of the spectrum who received a joint interview were maintaining their employment outcomes. The Non-interview

Samples and the very long-term unemployed were less likely to get a job in 1991 in a much weaker employment market.

4 Concluding Remarks

This paper has attempted to provide a flavour of the labour market activity, perceptions and outcomes of NEWSTART participants and other long-term UB receipts.

Some of the main findings were that:

- just over one-quarter of the long-term unemployed started that they wanted additional training, around one-quarter wanted job search help and just under one-quarter wanted work experience to assist them with getting a job;

- those who attended the NEWSTART joint interview received more CES labour market program assistance than those who did not receive an interview;

- the long-term unemployed were intensive users of the CES and they had realistic expectations of prevalent wage levels for full-time jobs;

- those who attended the NEWSTART joint interview had a better employment outcome than those who did not attend an interview, and this difference was greater for the 1991 survey which related to the poorer labour market environment;

- a large proportion of those long-term unemployed who obtained work gained access to part-time work and this increased in the poorer (1991) labour market environment; and

- JOBSTART is an effective program for the long-term unemployed (especially those who also had a joint interview) and JOBTRAIN appears to have limited impact.

These results, particularly those related to employment outcomes, should be treated as preliminary as there is more work currently underway to investigate whether there are other factors at work. However, the data do show that it is still possible to assist long-term unemployed persons to obtain employment in a poor labour market. But the long-term unemployed generally have a better change of gaining employment in buoyant economic and labour market environments.

Glossary of Terms

Formal Training Allowance (FTA) is a Department of Employment Education and Training (DEET) income support entitlement for eligible persons undertaking formal training through JOBTRAIN and SkillShare (and other DEET training programs). FTA can provide a living allowance, a training allowance supplement to adults and

reimbursement for books and other essential course incidentals. The Department of Social Security (DSS) acts as a payment agency for DEET in the delivery of FTA.

JOBTRAIN is a DEET formal training program which funds the provision of formal training courses by TAFE and other training providers and the provision of income support through FTA to eligible participants. Courses may last for up to 52 weeks but they currently average less than 10 weeks.

JOBSTART is a DEET wage subsidy program which pays up to a 26 week subsidy to employers who employ eligible persons at full award rates. The level of the subsidy increases with the age and prior unemployment duration of the eligible employee.

SkillShare is a DEET program which provides grants to community-based organisations to provide different types of assistance to unemployed persons. Participants in formal training courses provided by SkillShare-funded bodies may also be eligible for FTA.

NEWSTART was a joint program of DEET and DSS which began in February 1989 and provided greater assistance to the long-term unemployed to help them get back into employment.

The Newstart program began on 1 July 1991 and replaced the old DSS Unemployment Benefit program with the two-payment income support structure of Job Search Allowance for the first twelve months and Newstart Allowance for the post twelve month period. This change to the payment structure was complemented by the provision of additional labour market program places and some restructuring of the obligations of clients in receipt of income support.

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Implications of the Emerging Educational Markets

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1 Introduction

The paper summarises the development of markets in Australian education and discusses some of the implications of this change. It begins with a definition of the development of markets in existing areas of service production. This development is usually described, rather loosely, as 'privatisation', and sometimes as 'commercialisation'. These are actually distinct processes, and both may contribute to the development of markets.

Privatisation strictly refers to the transfer of production or of assets from the public (government or state) sector to the private (non-government) sector. The distinction between the public and private sectors is defined by the legal boundaries of the public sector. The process of privatisation includes the sale of land, buildings or equipment; denationalisations; the raising of private equity in public enterprises; and the contracting out of public production to private firms (Hastings and Levine, 1983; Heald, 1983). Privatisation also takes place when people transfer from public health, education and welfare to services in the private sector.

Commercialisation takes place when production assumes some or all of the forms of market (exchange-based) production: sale of goods or services, scarcity and competition, profit-making, etc. Full commercialisation means fully capitalist production, concerned only with the accumulation of profits and the expansion of production and markets, and this can only take place in the private sector.

In Australia, the introduction of or increase in tuition fees is often referred to as privatisation, rather than commercialisation which is the more appropriate term. The classical liberal binarism of market/state influences thinking about these issues (McIntosh, 1983) so that the two separate distinctions of private/public and market/non-market are often conflated into one market/state distinction. That which is not market-based is seen as public sector, and vice versa. This is misleading. The public sector is not always a non-market sector. There is considerable commercial activity within the public sector. And much in the private sector is not market production: for example community-based organisation, cultural activity, domestic production and other forms of unpaid work.

However privatisation often leads to commercialisation, and vice versa. Commercial production in the public sector may form new markets in which private sector production later flourishes. Privatisation encourages competition and scarcity, and weakens the influence of political factors in production. Under specific circumstances, commercialisation and privatisation may together lead to full market production.

1.1 A New Era

Peter Saunders noted recently that the 1980s saw the

> gradual re-emergence of faith in the ability of market solutions
> to solve a broad range of public policy problems ... The
> implementation of market-based solutions has proceeded ...
> with great speed and enthusiasm'. (Saunders, 1990: 2)

This is true of education as of other areas of public policy, except that in education we are seeing something more novel: the creation of new markets.

The development of markets is a major change in Australian education because of the historic dominance of the public sector in the financing of education, and in post-compulsory educational provision. The public sector had long preserved and developed the non-market and administered character of educational services. The role of public sector non-market production grew during the great expansion of education in the post war period to 1975. The government share of education funding rose from 82.4 per cent in 1950-51 to a high of 94.6 per cent in 1978-79 (ABS, 1990). In the 1960s and 1970s there was dynamic growth in public secondary schooling and, later, public universities. Tertiary fees were abolished in 1974. The share of school enrolments located in the private sector fell until 1978, and while this share remained high by international standards (Anderson, 1990: 4), there was a public sector monopoly at higher education level.

During the hegemony of Keynesian social policies, the centering of education on government was a tremendous source of strength. The universalist public education juggernaut had seemingly limitless prospects of growth; levels of support for public education decided Federal elections, such as that of 1972 (Whitlam, 1985: 291).

With the discursive climate now radically different, dominated by small government, welfare targeting, public choice theory and the virtues of markets, public education (premised on the opposing principle in every case) has become unusually vulnerable, like a beached whale, open to attack from every angle. In this regard, public welfare is probably stronger than public education. Even Hayek and Friedman argue that a 'safety net' welfare role should be at the core of state activity. There is no such consensus about public education. Friedman argues that ideally, education should be provided in unsubsidised private markets, and compulsory education as such should be abolished.

The paper now very briefly considers the concrete changes in schools, higher education and industrial training.

2 Schools

In 1951 the public sector educated 75.4 per cent of all students and in 1971, 78.2 per cent. It peaked at 78.9 per cent in 1977. By 1990 it had fallen to 72.1 per cent: the level of public sector enrolments was down by 156,000 while Catholic schools had increased by 94,000, Anglican schools by 31,000 and other private schools from 76,745 (1977) students to 170,493 (1990), an increase of 122.2 per cent. The number of private schools in this 'other private' group grew from 282 in 1969 and 341 in 1977 to 692 by 1985 (ABS, 1991), facilitated by generous establishment grants and ease of access to Federal recurrent funding.

As Don Anderson argued recently, the growth of private schooling is taking place at the expense of the public schools. The two sectors are 'not islands separate from each other, but dynamically intersecting sub-systems, each influencing the other', within a single schooling system (Anderson, 1990). Good parenting is becoming private schooling parenting for a large part of the middle class. The public schooling system is losing its comprehensive character, making it a residual system. It may become a system which educates only the poor, the disabled and those in remote areas - and a system associated with low educational expectations, and low achievement.

The private schooling system is based on financial exchange, competition and scarcity. Therefore it is a market system. It is not a capitalist system (very few private schools are profit-making), in contrast to private training, and it is heavily subsidised by the Government. Government subsidies enable private schools to lower their fees, reducing the cost to parents and thereby increasing demand for private schooling, so that enrolments increase. Ironically, the less commercial is private schooling, the more there is a tendency to privatisation.

In the residual public system there are signs of market developments: devolution of some administrative responsibilities, some local appointment of staff, growing 'semi-compulsory' fees, dezoning. The decisive stage in the establishment of a market would be per capita funding, funding that is proportional to student enrolment, in conjunction with the right to expand without limit. Public schools would then stand or fall by the level of demand, and would compete for enrolments at each others' expense. Per capita funding would also enable the introduction of a voucher system, either within public education alone, or across the whole of public and private schooling.

3   Higher Education

In 1990 there were 486,000 higher education students. Only 1.4 per cent were enrolled in private institutions - in the Australian Catholic University (fully government funded) and the Bond University, which had just over 1000 students.

In the absence of government grants, private universities are ideologically influential (as examples of market production), but have poor economic prospects, except in niche market areas such as business education. The more significant market development has been the rapid commercialisation of the public universities in the last five years:

- There has been a spectacular growth of overseas marketing of higher education and TAFE and schools (full cost overseas student enrolments). In tertiary education, numbers have risen from 622 in 1987 to 15,246 in 1990. Overseas marketing was deliberately established by the Federal Government as a source of export income. Fees were set above marginal cost and the profits have been used to subsidise other activities, including market-based salary loadings. There is no upper limit on the number of full fee places. Institutions thus have an incentive to expand overseas marketing.

- Growth in English Language College (ELICOS) enrolments was also rapid, until the collapse of a number of ELICOS institutions in 1990 and 1991 led to reassessment of unregulated development.

- The Commonwealth removed the prohibition on fee-based postgraduate courses in 1988. A large number of such courses have been set up. The minimum fee is now fixed at twice the level of the Higher Education Contribution Scheme (HECS). The highest fee is the Executive MBA at the University of Melbourne, $33,000.

- Corporate sponsorship (e.g. of professorial chairs) and joint university-company arrangements have both grown rapidly. For example the Graduate School of Management of the University of Melbourne is jointly owned by the University and a consortium of private companies, including Elders IXL, Pacific-Dunlop, BTR-Nylex, CRA and BHP (Kirby and Doman, 1989: 48).

- Commercial research and consultancy has also grown. In 1989 the combined turnover of the university consulting companies was nearly $100 million (Maloney, 1990:15). Commercial intellectual property is a major growth area.

The Federal Opposition, the Industries Commission and the Australian Vice-Chancellors' Committee have pressed for the abandonment of the prohibition on full-fee undergraduate courses.

The introduction of market-based fees across the board in undergraduate courses would halt the present trend towards universal higher education, expressed in a 10 per cent growth of enrolments in each of 1990 and 1991. A more likely outcome is a

dual system: maintenance of a low status non-market sector, alongside a commercial sector where the more sought-after courses would be located. Equity would be 'satisfied' with scholarships for students from disadvantaged backgrounds.

4 TAFE and Training

The Report of the Commonwealth Government's committee on the training costs of award restructuring (the Deveson Committee) noted that private in-house training was the largest single segment of training, and that there was rapid growth in both external private training and the commercial activities of Technical and Further Eduction (TAFE) institutions. This came as something of a revelation to many people, as the training market had previously been ignored by the Commonwealth policy agencies.

For example, the report noted that TAFE institutions were expected to raise $106 million commercially in 1990-91 (Deveson, 1990: 55). Individual TAFE colleges usually retained their own profits. Colleges were urged to develop the entrepreneurial approach: 'For modern, leading edge, public sector training systems there is no choice' (Deveson, 1990: 57-8).

The introduction of the training levy this year is expected to lead to a further expansion in private training. The emerging policy consensus is that the roles of the public sector in training should be two: the provision of training for the unemployed and others at risk (a residual role), and the allocation and monitoring of qualifications: 'keeping the ring' for the private training market.

5 Conditions of Possibility of Markets

We sometimes talk about 'privatisation' as if it was simply driven from above by state policies. Government policies are instrumental in the development of markets, but these policies are implemented under specific conditions. One of these conditions is the strength of liberal free market ideology. Free market economic policies now have a hegemony in education policies. It may now be necessary to win the argument about the benefits of cooperative planning and universal education at the level of theory and ideology, in order to win some of the policy issues.

Another condition of market development is the associated shift in popular attitudes. For example, the recent study by Elim Papadakis showed that people still support better funding of public schools, but they support the funding of private schools in equal measure (Papadakis, 1990: 16, 20-1), and are concerned about both discipline and standards in public schools - themes that have been vigorously propagated by the new right.

It must also be acknowledged that there are certain historical features of the production of education which lend themselves easily to market development in this era.

The product in education has always been a **mixture of universal services** - such as public primary education in the compulsory years - **and scarce positional goods** which are the object of competition because they confer special advantages on those able to secure them (Heald, 1983: 106-7). These positional goods consist of places in the elite private schools, and places in the public universities, especially in law, medicine, et al. These places provide access to the professional and managerial occupations, and also to the social distinction and status associated with the possession of 'superior' education.

During the expansion of free public education these positional goods - or some of them - lost part of their value. This foreshadowed the development of a universal system of higher education in which the positional value of higher education as such would disappear. The reintroduction of 'user pays' arrangements has once again increased the scarcity of certain university places, strengthening the positional goods aspect.

Similarly, in relation to research - the development of knowledges - academic work has always been characterised by individual 'ownership' of specialised knowledges (although mostly knowledge has not been commercially exploited on a large scale). This has provided a social structure which lends itself to the present rapid development of intellectual property.

6   Effects on the Non-Market Sector

But while there were always education markets, the territory under market control is now expanding rapidly, especially in training and in the commercialised parts of higher education. With free market liberalism hegemonic in social policy, market development has been freed of earlier policy constraints, such as the prohibitions on free charging. Normalised through government policies and/or consumer preferences, and able to grow freely, the education markets are self-expanding and self-reproducing. The economic recession has reduced the private capacity to pay, but this has slowed the trend to markets rather than halting it.

As Anderson said, the growth of markets weakens the role of the remaining non-market education, training and research. Throughout the services sector (health, communications, welfare, transport, etc.), the trend to markets is eating into the 'mixed economy' systems characteristic of the older, Keynesian period in social policy. It is a zero-sum situation. It is not possible for **comprehensive** non-market systems of education and training to co-exist on a stable basis with markets undergoing rapid development. This is obvious in both schools and training.

The rise of the market form means a fundamental change in the social ethic on which education is based. As we have seen, in the case of fully developed commodity production, the only objective is profits. More and better education is no longer an objective of production. This has implications for both government policies, and for the politics of education. As market production expands, the scope of government policy is thereby reduced. Government policies may still exercise an influence but

the potential is lessened. It is easier to change the educational practices of non-market public sector institutions, than the practices of private sector institutions and the commercialised parts of the public sector.

The development of education markets also tends to make it more difficult to implement an integrated education and labour markets policy, or education and welfare policy, or education and economic development policy. More importantly, it renders such integrated policies more ineffectual. For example, private ownership and market logic are formidable barriers to egalitarian social reforms.

Likewise, the scope of the **politics** of education is narrowed. Further along this road, the provision of good quality education ceases to be a government (public) responsibility and becomes the responsibility of the 'consumer'. Decision-making is shifted from the public political sphere to the private economic sphere. Thatcher's changes to schooling in the UK are starting to have this effect. In the Education Reform Act of 1988, the central government reduced the power of the local education authorities (a relatively democratic political forum) while restructuring the public schools as a market system, albeit a subsidised one. Local power still exists, but only in the form of economic consumption. Opposition to Thatcher's reforms has concentrated on the political shift from local government to central government, and the significance of the transfer from the political realm to the economic realm has largely been missed.

7 Education and Training as Commodities

The growth of markets implies changes to the systems of production and delivery, and also affects the content of what is produced. The main implications can be summed up in one: **a growing proportion of education, research and training is produced in the form of commodities**, in the economic sense.

In teaching, learning and research there is now a tendency to greater utilitarianism. There is a greater emphasis on short-term returns and pre-defined, pre-determined outcomes (commodities). In research, the development of markets means that more research inquiry becomes answer-driven. The client requires a certain answer, the researcher fashions the question and the methods of inquiry accordingly. One effect is that the connections between knowledge and interest are made more open; 'relevance in research' takes a more concrete form.

The growth of commercial intellectual property is leading to a tussle between individual researchers on one hand, and companies and universities on the other. A growing proportion of intellectual property is falling into corporate hands, where it is much less accessible. The development of the property form also leads to increased specialisation, in order to establish a defined territory which can be 'owned', and it leads to the alienation of areas of basic research - 'know how' - which are now necessary to commercially significant applied research and product development. This means that the free exchange of information is in jeopardy, even in 'pure' or

fundamental research. This is an important change in intellectual life, and one which is in many respects a pronounced deterioration.

At the same time we may experience a proliferation of new knowledges, partly driven by software development, and electronic media. An increasing proportion of knowledges are being produced outside the universities.

Analogous processes are at work in relation to training at all levels, and training credentials: greater specialisation, and utilitarianism, expressed as an increasingly vocational approach, with a swing to closer skill definition through competency testing arrangements. Generalist courses in the arts and science, which do not offer vocational specificity and certainty, are seen as more risky choices and will lose ground (while maintaining their traditional role as sources of cultivation and distinction for the social elite).

There will be pressures to shorten the length of courses, as the Bond University illustrates. Students will be motivated to finish even existing courses as quickly as possible. The price of educational exploration, of taking time to 'find yourself', will be high. There is anecdotal evidence that the introduction of the Higher Education Contribution Scheme (HECS), which is just under $2000 a year, has resulted in both higher pass rates and higher re-enrolment rates (less deferrals).

There will probably be a proliferation of credentials and credentialling authorities, despite the Commonwealth Government's efforts to centre credentialling on public sector institutions. There will also be a tendency to greater differences of quality between the different educational institutions, and a breakdown of the old, administered uniform quality arrangements in both public schools, and higher education. In schooling the tendency to devolution of administration will accentuate the tendency to unevenness in quality. It may lead to greater diversity of approach, but only within the limits of what is commercially viable.

The name of the institution that the student attends will become more important. We will see the increasing use of League Table style comparisons between institutions, in order to give an apparently objective form to subjective preferences - in other words, in order to manipulate the market.

If these trends continue, inequality of educational opportunity by social group will increase. Only certain social groups will have clear access to the top end of the educational market - expensive and prestigious institutions, professional training in law, medicine and business, etc. Credit transfer has come onto the agenda in order to overcome the worst effects of the vertical divisions in education and training, but so far moves towards better credit transfer arrangements have foundered because of the autonomy enjoyed by the established universities.

8   Market Subjectivities

Commodification also means a fundamental change in the process of education, in the work of educators. Human services such as education do not produce separate, corporeal outputs. They produce services, human labour itself. Thus **what is produced is the process of production itself.** (Teaching is simultaneous with learning. They are two sides of the same process). Thus any change to the system of production is also a change in the product, and vice versa. When outputs (learning) become commodities that are bought and sold in the market place, there is an immediate effect on the labour of teachers and academics. They are suddenly required to be entrepreneurial and competitive.

This subjective dimension is profoundly important. Market exchange requires educators and students to see each other differently from before. In markets there is neither solidarity nor altruism. To the extent that the market logic becomes determining, neither party adopts the interests of the other.

The interests of the 'producer' lie in maximising the economy of money and time, while charging the student or sponsoring company the highest possible fees. (This is why full fee students are not being provided with adequate English language assistance.) The perceived value of the product can be inflated by promotional techniques, and by selective restrictions on entry. Likewise, the interests of the student or client corporation lie in the lowest possible costs, and the maximum possible amount of teaching or research, i.e. the maximum exploitation of education workers.

Each party must be satisfied at the point of transaction, otherwise no exchange can take place. But each has a vested interest in deceiving the other. Each wants the other to value the sale at higher than its actual level. Market exchange is not the same as sharing teaching and learning. Most relationships are not relationships of exchange. Why should education be required to conduct its business within the exchange framework?

Some educators are trying to hold onto the old non-market ethos of public service as an end in itself, while also adapting to the new entrepreneurial requirements. It is a combination of qualities that is unstable in the present policy environment. It is public service that tends to lose out. The Deveson Committee chastised TAFE teachers for not being entrepreneurial enough (Deveson, 1990: 158-9). No concern was expressed about striking a balance between the commercial and public service approaches, or 'quarantining' the market activity, although these would have been the policy goals in earlier years. On the contrary: the Committee urged the development of the training market even though, as it said, non-market training was being undermined as a result (Deveson, 1990: 11).

9   Response to the Development of Markets

What should be the response to this rapid development of markets? Going with the market trend means allowing education and training to become stunted, and knowledge to become private property rather than part of the common good. Is there a middle position? I don't think that it is possible to return to the Keynesian policy of market containment. The will is no longer there. The preferred response is a long term one: to develop and practice a new educational discourse, with a different logic to that of market relations.

It is necessary to clear the way by critiquing the earlier educational progressivism, which failed to provide the equality of opportunity it promised, and is now associated with sloppiness about content, other-worldy curricula and laziness about work. The charges are partly true.

The other task is to tackle the liberal free market discourse directly. The Achilles heel is its assumptions about values and social goals. The free market economists do not talk very much about the social values of Herbert Spencer, F. A. Hayek, Milton Friedman, James Buchanan, et al. From their point of view this is a wise strategy.

Take public choice theory, founded by Buchanan (who won a Nobel Prize for his efforts). It is clever and cynical. The idea of 'producer capture' in education and the public service - the main theme of 'Yes Minister' - is intuitively appealing. It has certainly undermined the public sector. But the view of human nature and social relations underlying the theory is repugnant. In a candid moment, Buchanan once spelt out the ultimate meaning of his individualist position:

> In a strictly personalised sense, any person's ideal situation is one that allows him full freedom of action and inhibits the behaviour of others so as to force adherence to his own desires. That is to say, each person seeks mastery over a world of slaves. (Buchanan, 1975: 92)

This is the free market utopia. It is not an attractive sight. The opening is there for educational policies and practices that are based on democratic values and social solidarity - rather than the extreme individualism, competitiveness and market nihilism that characterises the free market position.

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Applied General Equilibrium Modelling and Social Policy: A Study of Fiscal Incidence

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1 Introduction

The effect of government activity on different groups in society is an issue of continuing interest to economic and social policy analysts. In evaluating proposed or actual reforms to the tax-transfer system, for example, calculations are often performed to identify who gains and who loses, i.e., to determine the incidence of the reform. Empirical fiscal incidence studies (e.g., Australian Bureau of Statistics, 1987; Warren, 1987) typically assume that changes in taxation and government benefits do not affect the pre-tax, pre-benefit incomes of households, or the pre-tax prices of the goods and services they purchase. Thus the burden of an increase in the sales tax on motor vehicles is attributed to the purchasers of the more expensive cars. A standard study does not identify the 'burden' (i.e., the reduction in post-tax income) borne by any workers who are made redundant as a result of contracting demand for motor vehicles.

This paper presents a more general approach in which unit record data is interfaced with a large general equilibrium model of the Australian economy, the ORANI model. Changes in labour force status are explicitly modelled, with an increase in the demand for labour leading to some previously discouraged workers re-entering the work force and some previously unemployed workers picking up new jobs. Commodity and factor prices are also fully specified, enabling a comprehensive calculation of the effects of fiscal changes on post-tax, post-benefit incomes. Results using both standard and general equilibrium approaches are reported for a tax reform in which wholesale taxes (WST) are abolished and replaced with a broad-based goods and services tax (GST). Conclusions concerning the significance of the methodology are drawn from a comparison of these results.

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2   Calculating Fiscal Incidence

The structure of wholesale taxes abolished in the simulations is the one that existed in 1988-89. However, as the current input-output database for the ORANI model is for 1980-81, all the WST flows are first deflated by a factor equal to the ratio of nominal gross domestic product (GDP) in 1980-81 to nominal GDP in 1988-89. When the resulting flows are removed from the 1980-81 database, the effects can be expected to be similar to those that would be obtained if the original flows were removed from a 1988-89 database. The specification of the WST structure is due to Chisholm, Freebairn and Porter (1990). The goods and services tax is distributed across taxed commodities so as to raise their purchasers' prices by a uniform percentage. The whole reform is revenue neutral in the ex ante sense (i.e., assuming no change in pre-tax prices and incomes), and its main effect is to replace taxes on inputs to production with taxes on consumption.

The incidence of the reform is calculated for 18 household types whose income and expenditure patterns are obtained by integrating data from the 1981-82 Income and Housing Survey (IHS) - updated to 1984-85 using the method described in Agrawal and Meagher (1988) - and the 1984 Household Expenditure Survey (HES). The 18 types are differentiated according to their income status (low, middle or high), according to the number of adults in the household (one, two or more than two), and according to whether of not the household contains children. In this context, income status is based on the notion of equivalent-adult disposable income defined by Kakwani (1986). The IHS contains data for 14,257 representative households. Table 1 shows the number of representative households that have been allocated to each household type, the total gross income of all households (i.e., after weighting the representative households) belonging to each type, and the disposition of gross income between income taxes, consumption expenditure and saving. Table 2 shows the sources of gross income for each household type. A more detailed description of the construction of the household database is contained in Meagher (1990b).

2.1   A Standard Calculation

The standard approach to the empirical estimation of fiscal incidence takes into account only the impact effect of the tax reform. The first step in this approach is to compute , using the ORANI input-output database, the reductions in the basic values of commodities that result from the removal of wholesale taxes on inputs to current production. Next, the reductions in the purchasers' prices of commodities are determined by adding the reductions in basic values to the reductions that result from the removal of wholesale taxes on consumption and investment. The purchasers' price reductions are then applied to the consumption expenditure and saving of the 18 household types to obtain the changes in their real disposable incomes. The results of this procedure are reported in Table 3. By design, no changes are recorded for nominal disposable income in this table.

Table 1: Disposition of Gross Income by Household Type, 1984-85

	Household type			Number of Households in IHS Survey	Gross Income ($m)			
No.	Income Status	Number of Adults	Number of Children		Income Taxes	Consumption	Saving	Total
1	Low	1	> 0	891	170	2781	-230	2721
2	Low	1	0	254	43	1282	-226	1091
3	Low	2	> 0	1004	187	6094	-783	5499
4	Low	2	0	1718	1499	14478	-2656	13321
5	Low	> 2	> 0	218	137	2384	-549	1972
6	Low	> 2	0	667	767	7591	-761	7597
7	Medium	1	> 0	993	453	4126	337	4918
8	Medium	1	0	65	63	448	22	535
9	Medium	2	> 0	1165	1087	8857	729	10674
10	Medium	2	0	1435	3187	13178	1927	18294
11	Medium	> 2	> 0	470	988	5676	683	7349
12	Medium	> 2	0	684	2056	9629	1425	13112
13	High	1	> 0	1093	2596	6499	3282	12378
14	High	1	0	29	62	233	52	348
15	High	2	> 0	1863	6838	19434	7504	33778
16	High	2	0	796	3786	9044	3718	16550
17	High	> 2	> 0	624	3156	9198	4214	16569
18	High	> 2	0	348	2207	5738	2261	10208
	All households			14257	29289	126681	20953	176923

Table 2: Composition of Gross Income by Household Type, 1984-85, $m

Household Type	Wages and Salaries	Income from Self-Employment	Rent	Property Income	Personal Benefits	Other Income	Gross Income
1	314	86	262	124	1876	60	2721
2	194	27	27	16	767	68	1099
3	687	437	734	416	3160	64	5499
4	7776	2180	461	552	2257	94	13321
5	790	250	134	98	628	73	1972
6	4062	925	390	359	1761	100	7597
7	1256	164	786	522	2001	189	4918
8	338	24	14	37	82	40	535
9	4694	565	957	1219	2879	360	10674
10	4534	1177	411	1198	803	171	18294
11	5078	533	305	394	898	141	7349
12	9567	957	434	926	1049	179	13111
13	7449	499	599	2237	620	974	12378
14	251	2	15	31	6	43	348
15	21682	1791	1284	5847	1213	1962	33778
16	11520	1525	333	2434	355	383	16550
17	12166	854	568	1867	670	446	16569
18	7065	766	290	1547	356	184	10208
Total	109424	12763	8003	19824	21380	5529	176923

Table 3: Impact Effect of Change in Indirect Taxation

Household Type	Disposable Income 1984-85 ($m)	Projected Nominal Change[a]			Projected Real Change[a]		
		WST Decrease	GST Increase	Total	WST Decrease	GST Increase	Total
1	2550	0.00	0.00	0.00	2.38	-4.67	-2.29
2	1055	0.00	0.00	0.00	2.60	-4.98	-2.38
3	5311	0.00	0.00	0.00	2.79	-5.20	-2.41
4	11821	0.00	0.00	0.00	2.58	-5.25	-2.67
5	1834	0.00	0.00	0.00	3.26	-5.98	-2.72
6	6829	0.00	0.00	0.00	2.97	-5.05	-2.08
7	4464	0.00	0.00	0.00	2.60	-4.01	-1.40
8	471	0.00	0.00	0.00	2.39	-4.00	-1.61
9	9587	0.00	0.00	0.00	3.05	-4.07	-1.03
10	15106	0.00	0.00	0.00	2.80	-3.79	-1.00
11	6360	0.00	0.00	0.00	3.15	-4.12	-0.97
12	11054	0.00	0.00	0.00	2.83	-4.01	-1.17
13	9782	0.00	0.00	0.00	2.87	-2.79	0.07
14	285	0.00	0.00	0.00	2.28	-3.69	-1.42
15	26939	0.00	0.00	0.00	2.97	-3.17	-0.20
16	12763	0.00	0.00	0.00	2.78	-3.10	-0.33
17	13412	0.00	0.00	0.00	3.04	-3.16	-0.12
18	8000	0.00	0.00	0.00	2.77	-3.32	-0.55
All households	147634	0.00	0.00	0.00	2.86	-3.80	-0.94

Note: (a) Projections are expressed in percentage changes

Thus, for example, the abolition of wholesale taxes increases the real income of households of type 13 (i.e., high income households containing only one adult and at least one child) by 2.87 per cent. The average increase for all households is 2.86 per cent. Apart from its sign, the value of the change for households of type 13 is obtained by taking a weighted sum of the change in its household-specific consumer price index (-3.10 per cent) and the change in the economy-wide investment price index (-2.40 per cent), the weights being the shares of consumption expenditure and saving in disposable income for that household type (see Table 1).

The same procedure can be applied to determine the increase in purchasers' prices, and the corresponding reduction in real disposable incomes, associated with the imposition of the GST. It turns out that the GST has the greater impact on the prices of consumer goods and hence the real value of consumption expenditure declines as a result of the change in the tax structure. For investment, the WST has the greater impact and the real value of saving rises. On balance, the real value of disposable income falls for most households, with the fall being relatively larger for low income households due to their relatively small (and, indeed, negative) amount of saving.

2.2   A General Equilibrium Calculation

In the general equilibrium approach, a solution to the ORANI model is first computed to determine the effects of the tax reform on a range of macro and structural variables of the economy.   A selection of these variables (concerning employment, factor prices and commodity prices) are then used to revise the incomes of the 18 household types. The ORANI model itself is well known, having been widely used for policy analysis for more than a decade. The standard version is documented in Dixon et al. (1982).   The version used in the present computations contains substantial additional detail on public finance, as described in Meagher and Parmenter (1989), Parmenter (1988) and Meagher (1990a).   It is implemented and solved using the GEMPACK general purpose software system for solving general equilibrium models (Pearson, 1986), which incorporates the Harwell sparse matrix code (Duff, 1977) for solving linear equations.   More detailed discussions of the general equilibrium simulations can be found in Dixon and Meagher (1990) and Meagher (1990b).

For the ORANI simulations, it is necessary to specify the nature of the economic environment in which the tax reform is assumed to occur. Two simulations are reported, one in which the nominal wage rate remains constant and one in which the real wage rate remains constant. The major additional assumptions underlying the simulations are as follows:

• the changes in taxes do not affect the nominal exchange rate;

• the changes in taxes do not affect industry capital stocks but they do affect industry rates of return and the allocation of investment across industries;

- aggregate investment (public and private) responds positively to increases in the overall rate of return on investment;

- real private consumption changes by the same percentage as real disposable income; and

- real public consumption is unaffected by the tax changes.

Under these assumptions, the simulations should be understood as short-run, with an adjustment period of about two years.

Macro Results

Table 4 contains ORANI projections for a selection of macrovariables. To illustrate how the results should be interpreted, consider the entries for real GDP in the first line of the table. The projections indicate that, about two years after the abolition of the wholesale tax, and assuming that the nominal wage rate is not affected by the change, GDP will be 4.91 per cent higher than it would otherwise have been. If the wholesale tax is replaced with a goods and services tax, GDP will be 0.70 per cent higher after two years than it would otherwise have been.

Generally speaking, the change in the structure of indirect taxation has a favourable outcome when the nominal wage rate is fixed and an unfavourable outcome when the real rate is fixed. In the former case, the change increases employment by 0.97 per cent, real GDP by 0.70 per cent and improves the balance of trade by 0.22 per cent of GDP. In the latter, employment declines by 0.79 per cent, GDP declines by 0.58 per cent and the improvement in the balance of trade is only 0.17 per cent of GDP.

When the nominal wage rate is fixed, demand expansion allows the prices of non-traded goods to rise relative to costs (mainly wages), giving producers the incentive necessary to increase output. Hence, when the removal of the WST raises disposable income and expands demand, employment and output respond strongly. The imposition of the GST moves the economy in the opposite direction, but not sufficiently to offset the positive effects of the WST abolition. When the real wage rate is fixed, the increase in prices following a demand expansion feeds into wages. Since the prices of traded goods are set in world markets, the producers of those goods suffer a reduction in profits and contract employment and output. These negative effects tend to offset the positive effects of demand expansion in industries producing non-traded goods.

Thus, the abolition of the WST has a less favourable effect when the real wage is fixed and the imposition of the GST has a more damaging effect. Indeed, as we have already noted, output and employment fall for the tax reform as a whole. The crucial factor is the relative effect of the two taxes on consumer prices; increases in consumer prices affect the level of activity more adversely when wages are linked to

Table 4: Macro Effects of Change in Indirect Taxation

Variable	Projected Change[a]		
	WST Decrease	GST Increase	Total
(a) Nominal Wage Rate Constant -			
Real GDP	4.91	-4.21	0.70
Aggregate employment	6.55	-5.59	0.97
Consumer price index	1.04	0.67	1.72
Investment price index	-0.88	-1.48	-2.36
Balance of trade surplus	-1.27	1.49	0.22
(b) Real Wage Rate Constant -			
Real GDP	4.12	-4.71	-0.58
Aggregate employment	5.49	-6.28	-0.79
Consumer price index	1.54	1.00	2.54
Investment price index	-0.30	-1.10	-1.40
Balance of trade surplus	-1.30	1.47	0.17

Note: (a)   All projections are expressed in percentage changes except for the change in the balance of trade surplus which is expressed as a percentage of GDP.

consumer prices than when they are not. Thus, in an environment of fixed real wages, the concentration of the GST on consumption goods means that the contractionary forces prevail.

Distributional Results

Distributional results corresponding to the two alternative assumptions about the wage rate are reported in Tables 5 and 6. These results are obtained by using the solutions of the ORANI model described above to revise the components of disposable income of the 18 household types introduced in Table 2. For wages and salaries, the revisions are based on solution values for the nominal wage rate and for employment by industry. For income from self employment, the relevant solution values are for net operating surplus by industry. Rent is taken to move with the return to capital in the Ownership of Dwellings industry, while property income and 'other' income are simply tied to nominal GDP. Personal benefits are composed of unemployment benefits and 'other' personal benefits, such as age pensions and sickness benefits. For both types, the value of the benefit per recipient is indexed to the CPI.

Table 5: Total Effect of Change in Indirect Taxation: Nominal Wage Rate Constant

Household Type	Disposable Income 1984-85 ($m)	Projected Nominal Change[a]			Projected Real Change[a]		
		WST Decrease	GST Increase	Total	WST Decrease	GST Increase	Total
1	2550	0.73	0.05	0.78	-0.82	-0.80	-1.62
2	1055	2.51	-1.18	1.33	0.50	-1.71	-1.20
3	5311	2.73	-1.87	0.86	2.32	-4.13	-1.80
4	11821	3.33	-2.42	0.91	1.93	-3.89	-1.96
5	1834	1.65	-0.92	0.73	2.19	-4.60	-2.41
6	6829	3.08	-2.19	0.89	3.02	-4.50	-1.47
7	4464	5.36	-4.54	0.82	4.48	-5.18	-0.71
8	471	5.62	-4.82	0.80	4.13	-4.99	-0.87
9	9587	5.23	-4.18	1.06	5.23	-5.41	-0.18
10	15106	6.30	-5.25	1.05	5.92	-6.00	-0.09
11	6360	4.83	-3.81	1.03	5.54	-5.75	-0.21
12	11054	5.80	-4.78	1.03	6.12	-6.48	-0.36
13	9782	6.09	-5.28	0.81	5.89	-5.09	0.80
14	285	6.01	-5.16	0.85	5.23	-5.86	-0.64
15	26939	6.15	-5.34	0.81	6.32	-5.86	0.46
16	12763	6.10	-5.17	0.93	5.97	-5.46	0.51
17	13412	6.04	-5.11	0.93	6.76	-6.13	0.64
18	8000	6.10	-5.13	0.97	6.52	-6.25	0.27
All households	147634	5.31	-4.39	0.92	5.22	-5.41	-0.18

Note: (a) Projections are expressed in percentage changes

Table 6: Total Effect of Change in Indirect Taxation: Real Wage Rate Constant

Household Type	Disposable Income 1984-85 ($m)	Projected Nominal Change[a]			Projected Real Change[a]		
		WST Decrease	GST Increase	Total	WST Decrease	GST Increase	Total
1	2550	1.51	0.55	2.06	-0.50	-0.59	-1.09
2	1055	2.97	-0.89	2.08	0.56	-1.67	-1.10
3	5311	3.23	-1.56	1.68	2.29	-4.15	-1.86
4	11821	3.97	-2.00	1.96	2.11	-3.77	-1.66
5	1834	2.49	-0.38	2.11	2.44	-4.44	-2.00
6	6829	3.76	-1.75	2.01	3.16	-4.41	-1.25
7	4464	5.60	-4.38	1.22	4.22	-5.35	-1.12
8	471	5.99	-4.58	1.41	4.04	-5.05	-1.02
9	9587	5.54	-3.98	1.56	5.01	-5.55	-0.54
10	15106	6.63	-5.03	1.59	5.73	-6.12	-0.39
11	6360	5.35	-3.47	1.88	5.47	-5.78	-0.31
12	11054	6.18	-4.54	1.64	5.92	-6.60	-0.68
13	9782	6.33	-5.12	1.21	5.64	-5.26	0.38
14	285	6.31	-4.96	1.35	4.92	-6.06	-1.14
15	26939	6.42	-5.17	1.26	6.05	-6.03	0.03
16	12763	6.40	-4.98	1.42	5.73	-5.61	0.12
17	13412	6.37	-4.90	1.47	6.51	-6.29	0.23
18	8000	6.39	-4.94	1.45	6.23	-6.44	-0.21
All households	147634	5.69	-4.14	1.54	5.07	-5.51	-0.44

Note: (a) Projections are expressed in percentage changes.

The number of recipients of 'other' benefits is assumed to be independent of the tax change. To compute the change in the number of unemployment benefit recipients, the change in labour force participation is first determined for seven demographic groups using a relation estimated by Peters and Petridis (1985). According to this relation, some unemployed workers become discouraged when employment falls and drop out of the workforce. Conversely, participation increases when employment rises. Given the change in employment for a household type and the change in the number of its members participating in the workforce, the number of unemployed is determined (assuming, of course, that the total membership of the household type remains constant).

Consider, then, the changes in nominal disposable income that result from the abolition of wholesale taxes when the nominal wage rate is fixed, i.e., the results in the first section of Table 5. The incomes of all households increase, although the middle and high income households fare considerably better than the low income households. This is because high and middle income households tend to rely on wages and salaries as their principal source of income, whereas low income households tend to rely on personal benefits. In the simulation of Table 5, aggregate employment increases by 6.55 per cent, causing similar increases in wages and salaries. On the other hand, the benefit per income recipient increases with the CPI by less than one per cent.

The same kind of considerations underly the results for the imposition of the GST, with the households that benefit most from the WST decrease tending to lose most from the GST increase. For the tax reform as a whole, nominal disposable incomes rise by about one per cent for all households, commensurate with the increase of 0.97 per cent in aggregate employment and the increase of 1.68 per cent in the rate of government benefits.

When the real wage rate is held constant (Table 6), the tax reform is more inflationary and all households enjoy a larger increase in their nominal disposable incomes. However, low income households are relatively better off. In nominal terms, low income households gain from higher prices because their benefits are indexed to the CPI. Middle and high income households also tend to gain because the nominal wage rate is indexed to the CPI. However, the gain for the latter group is partially offset by the reduction in employment that accompanies the decline in international competitiveness. Hence the distribution of nominal disposable income shifts in favour of the low income households.

To convert these changes in nominal disposable income to changes in real disposable income, they are divided by price deflators obtained by taking a weighted sum of a household-specific consumer price index and the economy-wide investment price index; i.e., the deflators are similar in construction to the ones used earlier in the standard approach. In general, the effect of the price changes is to shift the distribution of income in favour of the high income households. In all the general equilibrium simulations, the prices of consumer goods rise on average but the prices

of investment goods fall. As the low income households all have negative saving, they do not benefit from the latter price reductions.

3 Conclusion

In this paper, we have presented results showing the incidence of a change in the structure of indirect taxation on 18 household types using two different computational approaches: a standard approach that measures only the impact effect of the change (i.e., assumes that pre-tax prices and incomes remain constant) and a general equilibrium approach that takes such induced changes into account. In general, the two approaches give quite different results for the abolition of wholesale taxes and the imposition of a goods and services tax when each is considered separately, but more similar results for a combination of the two. This is because the induced effects of the two components of the tax reform tend to cancel each other. The following particular comparisons of the results of the two approaches are apposite.

- The changes in the nominal disposable incomes of the households can be significant when compared with the impact effect of the tax reform. Thus, for example, when the WST is abolished with the nominal wage rate held constant (Tables 5), nominal disposable income increases by 5.31 per cent on average. This is nearly twice the size of the corresponding impact effect (2.86 per cent, Table 3).

- When the effects of induced changes in output are taken into account, the price index for deflating nominal disposable income can assume a value that is quite different to that suggested by the impact effect. Thus, the WST abolition reduces average prices by 2.94 per cent according to the standard approach (Table 3) but increases average prices by 0.09 per cent according to the general equilibrium approach (5.31 per cent minus 5.22 percent, Table 5).

- The change in the average real disposable income of the households indicated by the general equilibrium approach (e.g., a decrease of 0.18 per cent for the entire tax reform when the nominal wage rate is fixed) can be quite different to that indicated by the impact effect (i.e., a decrease of 0.94 per cent).

- The general equilibrium results vary in significant ways with the economic environment assumed, whereas the standard approach does not admit any consideration of the economic environment. As an example, the relative position of low income households is markedly better when the tax reform is implemented with the real wage rate, rather than the nominal wage rate, held constant.

More generally, the general equilibrium results differ from those obtained by the standard approach because they depend on mechanisms that are not addressed in the latter. While the importance of those mechanisms will vary according to the particular fiscal policy under consideration, the evidence presented here does not

encourage confidence in the reliability of the standard approach as an indicator of changes in real disposable incomes in the short run.

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Recent Developments in Social Security in New Zealand: Old Times Revisited

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1 Introduction

In December, 1990, the newly elected National Government in New Zealand announced cuts in social security benefits ranging up to twenty five per cent of the existing benefit rate. These were the first actual benefit cuts since the 1930s, though in the 1980s benefits had been cut in real terms by the lack of appropriate adjustments in relation to wages and prices.

The cuts that were introduced were subject to extensive criticism from a wide range of beneficiary, social service and trade union groups. This paper argues that those cuts represented the final stage in a process of benefit changes that had been introduced by the Labour Government between 1984 and 1990. Those changes had represented a deterioration in the position of beneficiaries and, more importantly had provided the political and ideological launching pad for the National cuts.

Second, the changes represented another historical conjuncture in which the long standing struggles for beneficiaries were once again alive and powerful. Those long standing struggles are about the comparative role of the state in relation to the obligations for financial support from the market, the family, and private charity. Many of the Labour Government changes had moved towards greater assistance from sources other than the state, particularly the family. The National Government extended this emphasis further. I will finish with some comments on the future directions for the development of social security in New Zealand.

2 The Labour Government Changes

Let me, then, take the first question, the changes introduced by the Labour Government, and the effect of those changes on the situation of beneficiaries and on the sense of belonging and participation for beneficiaries.[1] What, then, were the

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1. The terms 'belonging' and 'participation' were posed by the 1972 Royal Commission on Social Security as the key to social security provision.

changes to social security introduced by the Labour Government between 1984 and 1990?

These changes are shown in Table 1.[2] The titles of benefits for the bottom half of the Table refer to benefits either currently in place or planned in the 1990 Budget and introduced in legislation before the 1990 election. They have been included here because they represent the culmination of the review processes undertaken between 1984 and 1988; they would have been the final shape of the Labour social security structure.

There were a number of consultations as part of these changes; they are identified in Appendix 2 at the end of this paper. A central consideration for those reforms was the relationship between benefits and wages, the 'less eligibility principle' (which is that welfare provision should always be lower than wages) that has always been a fundamental consideration in provision of social security. There was a strong emphasis in the second review, *Benefit Reform* (Ministerial Task Force on Income Maintenance, 1986), on a series of changes in the structure of benefits which would encourage people to take up employment, and move from a benefit. This applied in relation to the proposed changes to the benefit structure itself, and to the proposed changes to the benefits for single parents, for the unemployed and for the disabled.

This emphasis on moving people from a benefit to paid employment occurred in a context of rising unemployment and gave legitimacy to the 'bludger' argument that those on benefits were not really trying to obtain employment. The less eligibility principle was one of the principal arguments for the National Government benefit cuts. Benefits should be cut, the current Minister argued in December 1990, because they were too close to wage levels, and because beneficiaries should seek paid work, and should not be dependent on the state.

Missing from the discussion during the Labour Government changes and during the recent cuts was any extensive comment on the adequacy of benefit levels or of wage levels. This discussion on benefit levels did not explore how adequate those were, but rather concentrated almost exclusively on cost considerations. Nowhere in the discussion on benefit changes and the emphasis on work as an alternative to benefits was there any discussion or suggestion that poverty may not necessarily be overcome by moving from benefits to employment.

There were a series of social security reviews between 1985 and 1988, culminating in the Report of the Royal Commission on Social Policy which issued a special set of Working Papers on Income Maintenance prior to the release of the full Report

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2.   That Table also includes changes in accident compensation because these changes affect
      those who, in 1984, would have been eligible for sickness benefit or invalids benefit. I have
      also included Guaranteed Minimum Family Income because this is part of the total picture
      of family support, although not available to beneficiaries.

Table 1: New Zealand Public Income Support Structure - Changes, 1984-1990

Claimant Group

	Aged	Single Parents Unemployed Sick and Invalid Widows	War Pensioners	Accident Victims	Family Support
1984	• National Superannuation	• Domestic Purposes Benefit (DPB) • Unemployment Benefit (UEB) • Sickness Benefit • Invalids Benefit • Widows Benefit	Range of Pensions and allowances	• Accident Compensation (ACC)	• Family Benefit
1990	• Guaranteed Retirement Income (GRI)	Universal Benefit • not available for work • transition to work • work ready	• Veterans Allowance	• ACC • Incapacity Benefit (See Appendix 2)	• Family Benefit (includes Family Support) • Guaranteed Minimum Family Income (GMFI)

(Royal Commission on Social Policy, 1988). In its consideration of the issues, the Royal Commission on Social Policy recommended that there were no grounds for reducing benefits below the levels that existed at that time.

The outcomes of these review processes were Budget announcements on 1989 and 1990, and the consequent Bills introduced into the House to give legal shape to these changes from 1 April 1991. Table 1 above summarises the changes in diagrammatic form. The universal benefit, emphasis on the work status of beneficiaries, alignment between accident compensation and non-accident financial support for the sick and disabled from April 1992, and indexing of benefits represent major elements of the final shape of the changes. The other key feature of the final shape was the change in the basic organising framework for benefit levels. The core benefit was to be the single rate, with additions to this core on the basis of the number of other dependants. The effect of this change, and the accompanying benefit increases from April 1991 would have been a reduction in the benefit for many beneficiaries. (This is discussed more fully the next section).

As Table 1 shows, there had also been other significant benefit changes during the six years of the Labour Government. In addition to the changes shown in that Table, all benefits are now taxed and benefits are increased on an annual rather than six-monthly basis.

The final outcome of the changes, as set out in the 1990 Budget, would have been to reduce benefits for many beneficiaries if Labour had been re-elected in October of that year. The universal benefit would begin from a basic core benefit of a single rate of benefit and the other payments in relation to children and partners would revolve around this core. The effect of these changes would be to reduce the benefit for single beneficiaries, with the exception of single unemployed beneficiaries living alone. With the exception of this particular group, the increased benefit rate from 1 April 1991 for all groups would have been below the anticipated rate of inflation. The one exception would have been a couple with four children.[3] The greatest reductions would have occurred in relation to single sickness beneficiaries (a decrease of 16.7 per cent); the reduction for a sole parent with one child living with others would have been 12.5 per cent. It was claimed that almost half of those on Domestic Purposes Benefit (DPB) are living with their parents, friends or relatives and hence the impact of this would have been quite substantial. (For a succinct and comprehensive table setting out these figures, see *New Zealand Herald*, 28 July 1990.) The Task Force on Income Maintenance estimated that:

> around 53,000 single parents would be affected in 1991/92 with
> a drop in income of $35 per week. (Task Force on Income
> Maintenance Reform, 1989: 93)

The Task force went on to recommend that the decision be reconsidered. What, then, have been the effects of the changes?

3   The Effects of Changes

Securing a clear unambiguous and unequivocal picture of the quantitative impact of the changes in the position of beneficiaries is impossible. Adequate quantitative data is difficult to secure; the changes to the public service introduced by the Labour Government also make it expensive to obtain data. A further limitation arises from the difficulty of establishing an adequate base point in 1984 from which to launch the comparison. However, a number of very useful indicators are available.

Tables 2 and 3 set out basic benefit rates (after tax) and movement in the Consumer Price Index (CPI) during the period under review. June 1990 figures are used because these are consistently available for the difficult parameters. The deterioration in the position of beneficiaries over the time span is clear from these Tables; the benefit increase is between ten and fifteen per cent less than the inflation increase.

The most significant change is the movement in benefits in relation to price increases, as measured through inflation. Tables 2 and 3 compare movement in three

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3.   The situation for unemployed people without dependants is different because the changes
     remove the discriminatory reduction for unemployed people without dependants.

Table 2: Benefit Changes, 1984-1990[a]

	National Superannuation (Single)	Unemployment Benefit (Single <20)	Domestic Purpose Benefit (1 child)
June 1984	98.61	63.57	150.46
June 1990	163.57	109.76	246.45
% change	**65.87**	**72.70**	**63.79**

Note: (a)   In making comparisons, two caveats are important, namely the introduction of taxation for all benefits from 1 October 1986, and the 5 per cent compensation for the Goods and Services Tax (GST) from the same date. Figures are net.

Sources: Department of Social Welfare *Annual Report*, 1984; current benefit pamphlets, 1990.

Table 3: Price Increases, - Consumer Price Index, 1984-1990

June 1984	601
June 1990	1112
% change	**81.9**

Source: *Hot Off The Press*, Table 1, Consumer Price Index, September, 1990.

important benefits with inflation increases as reflected in the CPI. There is here a significant gap between the inflation rate and benefit increases, indicating a deterioration in the position of beneficiaries. To paraphrase the argument from the Royal Commission on Social Security (1972), beneficiaries are less able to belong and participate than they were in 1984.

A second basis for comparison would be between benefits and wages; a comparison with prices simply measures the extent to which beneficiaries are able to maintain their current economic position, while a comparison with wages is a much more useful indicator of the extent to which beneficiaries are able to belong and participate. Such a comparison measures the position of beneficiaries in relation to other members of the society.

There are two regularly published measures of average income for full-time wage and salary earners. These are set out below in Tables 4 and 5. It should be noted that 'gross income' is used in both instances, and hence changes in taxation rates will have an important effect on actual spending power of such households. (Table 6 shows these changes have primarily advantaged higher income earners.) Table 4

Table 4: Average Gross Income - Full-Time Wage and Salary Earners

	First Quintile	Third Quintile	Fifth Quintile
June 1984	1450	14431	439
June 1990	2549	2573	2623
% change	**75.79**	**78.31**	**82.28**

Sources: *Monthly Abstract of Statistics*, September 1985; *Key Statistics*, October 1990.
           Base: March 1981 = 1000.

Table 5: Average Gross Income - Households of Full-Time Wage and Salary Earners

June 1984	1443
December 1989	2610
% change	**80.87**

Sources: *Monthly Abstract of Statistics*, September 1985; *Key Statistics*, October 1990.
           Base: March 1981 = 1000.

presents these changes on a quintile basis; it is clear that higher income earners (fifth quintile) have had a significantly greater increase in their income than have lower income earners (first quintile).

The increase in average gross income for the lowest quintile is greater than the benefit increase for single national superannuants and for single parents with one child (see Table 2). For single unemployment beneficiaries, the increase is very similar to that of the third quintile. Table 5 moves one step further on, setting out the figures for households with full-time wage and salary earners. Here too the gap between benefit increases (as set out in Table 2) and average household incomes for full-time wage and salary earners is clear.

The picture of greater income increases for higher income earners, evident from Table 4, is reinforced by an examination of changes in real disposable income. As Table 6 clearly shows, there is a six per cent difference in the changes in real disposable income between the first and the fifth quintile of full-time wage and salary earners, the lowest quintile suffering a decline while the highest quintile experienced an increase.

It is useful to place these benefit and wage changes alongside one further key influence on income distribution, namely tax changes. Between 1984 and 1990 the

Table 6: Real Disposable Incomes - Full-Time Wage and Salary Earners

	First Quintile	Third Quintile	Fifth Quintile
June 1984	973	974	1052
June 1990	937	952	1081
% change	-3.69	-2.26	-2.76

Sources: 1984 figures from *Monthly Abstract of Statistics*, September 1985; 1990 figures from *Hot Off The Press*, Real Disposable Incomes and Indexes and Related Measures for full-time wage and salary earners, Table 1.1, June 1990 Quarter. Base: March 1981 = 1000.

Table 7: Average Tax Changes (Income Tax as a Proportion of Gross Income) Full-Time Wage and Salary Earners

	First Quintile	Third Quintile	Fifth Quintile
June 1984	16.4	24.2	31.3
June 1990	17.9	23.5	28.0
% change	+9.1	-2.9	-10.5

Source: Department of Statistics, *Monthly Abstract of Statistics*; *Key Statistics*.

tax scale was reduced from a five step scale, with a top rate of 66 cents per dollar to an income of $38,000 to a top rate of 33 cents per dollar at an income of $30,875 in a two step scale. In addition, an indirect tax (GST) was introduced in 1986 at a rate of 10 per cent on almost all expenditure. That rate was increased to 12.5 per cent from 1 October 1988.

The effect of these changes on the income quintiles can be seen in Tables 6 and 7. The former sets out data for full-time wage and salary earners only, and clearly shows the increase in tax rate for the first quintile (lowest earners) and the decrease for the top quintile. Table 8 goes further, examining the impact of direct and indirect taxation for equivalent market income deciles.[4] These figures are not available on the comparative basis we have been using throughout this section, but they do

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4.   'Equivalent income market deciles' refers to the calculation of incomes when household formation is taken into account. It relies on the use of equivalence scales to compare households with different age groups and different numbers of people.

Table 8: Total Taxation - Direct and Indirect Taxes[a][b]
(Tax as a Percentage of Equivalent Market Income)

	Direct	Indirect	Total
First Decile	22.1	25.9	48.0
Second Decile	18.6	18.8	37.4
Third Decile	18.4	18.6	37.0
Fourth Decile	21.0	19.0	40.0
Fifth Decile	24.7	16.6	41.3
Sixth Decile	27.3	15.5	42.8
Seventh Decile	28.7	13.8	42.5
Eighth Decile	30.0	14.1	44.1
Ninth Decile	31.6	13.2	44.8
Tenth Decile	37.9	10.3	48.2

Notes: (a) The indirect taxes referred to here are wider than GST; they also include stamp and cheque duties, fringe benefits tax, motor vehicle fees, land tax etc. (For a full description of what they contain, see Department of Statistics, 1990.)

(b) Since the data here was collected, GST has been increased to 12.5 per cent, and the latest tax changes detailed in Table 7 have come into effect.

Source: Department of Statistics (1990): Tables 26 and 28: 57 and 63.

illustrate the effect of taxation on different households. The close similarity in total taxation between the first and tenth deciles stands out starkly as does the regressive effect of indirect taxes.

The arguments above in connection with beneficiaries can be seen equally clearly when explored in relation to income distribution generally. That is, the effects that I have drawn attention to in relation to those dependent on the state for their income are shared by those who have the lowest wages. All the tables point in the same direction, namely that the most significant increases and improvements in economic position have been at the higher end of the income scale. This applies whether the focus is on wage and salary earners, where the fifth quintile (highest income) has a larger percentage change than the first quintile, or the focus is on real disposable incomes where the fifth quintile has a bigger increase than the first quintile. Similarly, in the taxation area, the first quintile of full-time wage and salary earners has an increase, while the fifth quintile has a decrease. Even more significant, however is the impact of direct and indirect taxes, where the first decile (of which 26 per cent are single parent households and 35 per cent single person households), pays 48 per cent in taxation while the tenth decile pays only fractionally more. Twenty-seven per cent of that first decile are retired. On the other hand, 37 per cent of the tenth decile are couples with children, 34 per cent are couples without children, 15 per cent are single person households and one per cent are solo parent households. Three per cent are retired. Conversely, if we concentrate on the retired,

single parent households and those on benefits, we find that 55.5 per cent of the retired are in the bottom two deciles, while three per cent are in the top two deciles; 42 per cent of solo parent households are in the bottom two deciles, compared with three per cent in the top two deciles, and 43.2 per cent of those on unemployment or other benefits are in the bottom two deciles, with 5.9 per cent of those on unemployment or other benefits are in the bottom two deciles, while 5.9 per cent are in the top two deciles. (Figures are adapted from Department of Statistics, 1990, Tables 4, 5 and 6.) There are no comparative figures available to show how this has changed over the period under review.

The deterioration has been accelerated by the December 1990 cuts and by the other benefit changes that have accompanied those cuts. The most severe and dramatic of those changes has been the introduction of a twenty-six week standdown period for those who leave a job 'without good reason'. The actual cuts in benefit rates are set out in Table 9 below.

The evidence here all points to a greater poverty for those who have the least, using poverty in the relative sense of that term. This greater poverty has occurred as a result of important political and ideological debates, debates that are a long standing part of the history of social security in New Zealand. As I said earlier, these are debates about the role of the state, the market, the family and private charity. In the next section I want to illustrate how the historical influences that have always been an integral part of social security have again been crucial in accompanying and providing the themes for the structural changes outlined above.[5]

4   History Revisited

Let me begin by setting out those terms[6] and then illustrate each in turn with examples.

*   The role of the state as against the family in providing income support.

*   The promotion of less eligibility for beneficiaries.

*   An increasing emphasis on selectivity as the response to poverty.

4.1   The State and the Family

The conflict between the role of the state and the role of the family is a fundamental feature of the historical development of social security in New Zealand. This was

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5.   For a fuller discussion, see Wilkes and O'Brien (forthcoming).

6.   These are, of course, not the only features: racism and the distinction between the deserving and undeserving poor are but two other notable examples.

Table 9: Reductions in Social Security Benefits for Selected Beneficiaries, December 1990 Economic Package

	December 1990 $	April 1991[a] $
Unemployment benefit		
18-19 years	114.86	108.17
<25 (single)	143.57	129.81
married, 1 child	297.08	271.88
Sole parent, 1 child	255.14	227.93
Sickness benefit > 25	162.26	135.22
married couple	270.44	245.86

Note: (a)   This is the date from which the changes took effect.

Source: Department of Social Welfare, 1991.

particularly evident in the period following the signing of the Treaty of Waitangi in 1840. The first Ordinance in 1846 - Ordinance for the support of destitute families and illegitimate children - placed responsibility for support on the family. Father, grandfather, mother, grandmother and the children of destitute persons were liable for the support of the destitute person. A husband could be fined for deserting his wife or their children, or failing to support them, or leaving his wife or children without means of support.

This emphasis on the family as the unit responsible for support was even more clearly illustrated in the 1877 Destitute Persons Act. 'An Act relating to destitute persons, illegitimate children, and deserted wives and children'. The Act provided that 'the near relative of a destitute persons shall if of sufficient ability be liable to support every such destitute person'. 'Near relative' was defined to include 'father, stepfather, grandfather, mother, stepmother, grandmother, children (other than step-children), brother' of a destitute person. Destitute person was defined to mean 'a person unable to support himself or herself by his or her own means of labour'.

The responsibility of the family was central to the 1910 Destitute Persons Act; a near relative was responsible for the maintenance of a destitute person. 'Near relative' was defined as father, grandfather, mother, grandmother, son, daughter, grandson, granddaughter, brother or sister. In the case of an illegitimate person, 'near relative' was defined to mean mother, mother's father or mother, son, daughter, grandson or granddaughter. It also included the father of an illegitimate person or the father or mother of that putative father. Any state assistance should be minimal - the principal responsibility belonged to the family.

The 1938 Social Security Act represented a significant step forward for state assistance. The state took on greater responsibility for the relief of poverty. The extension of the widows benefit to deserted wives and the creation of a statutory sickness and unemployment benefit all represented major extensions of social security. These extensions were enhanced by the creation, in 1946, of a universal family benefit, payable without a means test, for all children under the age of sixteen.

This approach was particularly evident in the recent decision to abolish the unemployment benefit for under 18 year olds, the Minister of Finance commenting on the Budgets of 1989 and 1990 that this would place responsibility back on families for the support of young people. In discussing the changes to youth income support in the 1989 Budget document *Economic Strategy*, the Minister said:

> The reforms have also clarified the respective roles of parents
> and the Government in providing support for this age group,
> with greater emphasis on the role of parents to provide support.
> (Minister for Finance, 1989: 78).

The argument was taken further in the Social Welfare Bill (No. 2) introduced in 1990.[7] Benefits for those under twenty years of age without dependants would be subject to a parental income test. Similarly, the emphasis on reducing state income support for the elderly reflected similar arguments: the individual and the family should provide.

The December 1990 changes have taken this further, unemployment benefit for single people being paid at the single rate until the age of 25. The Minister has constantly emphasised that the family and voluntary organisations (private charity) need to take greater responsibility for caring for and supporting dependants, while the state should take less responsibility.

4.2 Less Eligibility and Independence

Less eligibility and the fear of benefits reducing incentives to obtain and retain paid work has always been a significant feature of New Zealand social security provision. It dominated debates about payments of benefits to the elderly in the 1880s and has been constantly repeated as a major danger in discussions on benefit increases and benefit changes. It is, of course, central to the form and structure of social security and is an integral part of the contradictions that are an essential feature of state social security provision (Alcock, 1987).

During the changes of the last six years, it has continued to be an important feature. It was significant in the original decision not to pay Family Care to beneficiaries, the argument being that not doing so would ensure that a gap was maintained between

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7. This Bill contained the changes in social security proposed to come into effect in 1991.

benefits and wage rates. Similarly, *Benefit Reform* (Ministerial Task Force on Income Maintenance, 1986) refers on a number of occasions to the need to maintain a gap between benefits and wages and to this being an important determinant in the setting of benefit levels. 'Less eligibility' seemed to be the primary determinant of benefit adequacy.

The dominance of paid work and the importance of moving people from benefits to paid employment have been particularly strong themes in *Benefit Review 86* (Department of Social Welfare, 1986) and in Budget changes announced in 1990. (It will be recalled from Table 1 that the basic benefits will be replaced by a universal benefit in which beneficiaries will be subject to an income test and a work test.) The lack of attention to benefit adequacy did not deter Labour leaders from giving heavy emphasis to movement of beneficiaries into paid employment during the election campaign in 1990.

The Task Force on Income Maintenance in a clear summary of the purpose of the changes from a categorical benefit system to the universal benefit said:

> The structure of the benefit will provide signals to all those who are not incapacitated for work, and who are on benefit, that entitlement is not dependent on status such as widowhood, but on circumstances such as the need to care for young children, or an inability to earn sufficient income. In providing such signals, and ending a categorical benefit structure, government intends a shift from the perception that the state should provide income support to those who fit certain categories, to the perception that the state will provide income support where people are unable to provide it for themselves. (Task Force on Income Maintenance Reform, 1989: 68)

4.3 The Response to Poverty - Universality or Selectivity

The nineteenth century provision of financial assistance was dominated by a selective, individually based assessment of need. The poor were subject to extensive and intensive personal and family investigation before they were considered to be eligible for financial assistance. Tennant (1989) documents these experiences in her study of charitable aid.

The 1938 Social Security Act, and the introduction of family assistance in 1926 moved away from means testing towards a form of universality. This movement was partially reversed in 1951 with the introduction of supplementary assistance, a form of social security which was again based on individual assessment. Supplementary assistance was an adjunct to the categorised benefit system of the time. It became increasingly important in the provision of social security during the 1960s. (For fuller details of this, see O'Brien, 1991.)

The 1972 Royal Commission on Social Security argued for a selective form of provision, emphasising the importance of individual assessment of need as the basis

for social security assistance. At the same time, the Commission also supported limited universality through the family benefit and universal superannuation as one component of financial assistance for the elderly. Alongside this universal coverage was a means tested old age pension.[8]

The universal basis of superannuation was extended in the 1970s. The Labour Government introduced a New Zealand Superannuation scheme in 1975 on the basis of which people would contribute a proportion of their salary during their working life, thus creating the basis of their superannuation on retirement. The scheme was stopped following the election of the National Government in 1975 and replaced by National Superannuation which came into effect in 1977. This provided a flat rate benefit, at the same rate, for all persons, once they reached age 60. It was not means tested in any way; the rate of payment was indexed to wage levels.

By 1984 there was, then, a system that contained both universal and selective features. The 1984 - 1990 period emphasised the selective nature of social security provision. In particular, changes made reflected an emphasis on targeting and the increasing use of means tests particularly through the operation of Family Support and Guaranteed Minimum Family Income. (The term 'means test' was seldom used, it was in fact replaced by the much more up-market phrase 'targeting'.) Treasury argued on a number of occasions, as did a number of Government Ministers, that targeting would ensure that there were more resources to allocate to those 'in need'.

The emphasis on targeting underlay many of the arguments for the benefit changes made between 1984 and 1990. Ministers of Finance regularly emphasised the advantage of targeting benefits to those 'in need'. The December 1990 changes have built on this emphasis directly by the stress on emergency provision to cover 'real need', by the abolition of universal family benefit, and by a sustained campaign to means test Guaranteed Retirement Income, the universal payment to the elderly.

5 Conclusion

There is a New Zealand tradition of state intervention to promote redistribution in favour of the poorest. There is no doubt that social security redistributes income to the poorest (Department of Statistics, 1990). However, what we are clearly seeing here is a series of outcomes which resulted in a decline in the position of the poorest and particularly social security beneficiaries vis-a-vis the society as a whole. State policy and state practice, for all groups of beneficiaries, has moved in the direction of a decline and a deterioration in their economic position. The changes planned to take effect from April 1991 (and April 1992 in case of accidents) strengthen that deterioration. They were changes which would make concerted political and ideological struggle in relation to the position of the poorest in society a continuing

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8.   Castles (1985) has argued that in fact targeting in social security (or its more accurate and sustained forerunner, means testing) has been fundamental to the operation of social security throughout its history in New Zealand.

requirement. They represent a repudiation of many key facets of the development of social security in New Zealand.

The historical forces and debates which have shaped social security continue to be crucial to its development, and to affect both the benefit rates and the rules and regulations surrounding its provision. Questions surrounding the maintenance of 'less eligibility', the preservation and strengthening of work incentives, the importance of 'the family' and family responsibility have all continued to be central themes. Although the specific details and specific issues are different, the continuity is clear.

The ideological and political influences and effects of the Labour Government changes provided the launching pad for the latest National Government attacks on the poor. The ways in which the Labour Government articulated the issues opened the way to the possibility of a sustained attack on beneficiary living standards. The first wave in those attacks has already been launched. There are almost certain to be others. Economics, ideology and politics will continue to be crucial determinants of social security provision.

The attacks on protection of working conditions which accompanied the benefit cuts make increased poverty inevitable. The focus will need to shift from benefit levels to income distribution generally. The core questions will have to revolve around the adequacy and fairness of that distribution, whether through wages or benefits. That distribution has always been the central concern. The debate will need to move towards the possibility of some form of income guarantee and back to issues of redistribution if massive poverty and social division are to be avoided.

Appendix 1: 1990 Budget (to come into effect 1 April 1991)

Family Support and Family Benefit to be amalgamated into new Family Benefit.
Threshold set at $18,980.
Full rate of $49.36 for first child and $28.21 for each subsequent child, then abated through a two step process, to a minimum of $6 at $30,230 (1 child) and $37,930 (3 children).
The universal payment of $6 remains.
Family Benefit and thresholds to be inflation adjusted, except for universal payment of $6.
Full rate paid for any child of 16 or 17 still at school.

Appendix 2: List of Reviews and Publications

Budget '85 Task Force (1985), *Benefits, Taxes and the 1985 Budget.*
Caygill, D. (1989), *Economic Strategy*, Budget document.
Department of Social Welfare (1986), *Benefits, Taxes and the 1985 Budget. A Review and Summary.*

Department of Social Welfare (1988), *Income Support for the Elderly*, Department of Social Welfare, Wellington.

Ministerial Task Force on Income Maintenance (1986), *Benefit Reform*.

Ministerial Task Force on Income Maintenance (1987), *Benefit Reform: The Next Steps*, Department of Social Welfare, Wellington.

Report of the Ministerial Review into Benefit Fraud and Abuse (1986).

Royal Commission on Social Policy (1988), *Working Papers on Income Maintenance and Taxation*.

Task Force on Income Maintenance Reform (1989a), *Report on a Proposed Income Maintenance System*.

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Report of the Royal Commission to Inquire into Social Security in New Zealand (1972), Government Printer, Wellington.

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Aboriginal Economic Status by ATSIC Regions: Analyses of 1986 Census Data

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1 Introduction

The establishment of the Aboriginal and Torres Strait Islander Commission (ATSIC) in March 1990 under the Commonwealth *Aboriginal and Torres Strait Islander Commission Act 1989* resulted in the administration of Aboriginal and Torres Strait Islanders' affairs and programs Australia-wide being largely decentralised to 60 regional jurisdictions. The objectives of the Act are to ensure participation of Aboriginal people in decision-making and in the formulation and implementation of government policies that affect them; to promote the development of self-management and self-sufficiency among Aboriginal people; to advance Aboriginal economic, social and cultural development; and to ensure coordination in the formulation and implementation of policies affecting Aboriginal people between all levels of government. Regions vary greatly in geographical and population size; their constituents elect councils (with between 10 and 20 members) which formulate and assist in the implementation of regional plans, make proposals for expenditure, represent the interests of the residents of their region, and elect representatives to their Zone. ATSIC is run by 20 Commissioners, 17 elected by the regional councillors in each of 17 Zones, and the Chairperson and two commissioners who are appointed by the Minister for Aboriginal Affairs.

The process of establishing ATSIC regions and zones was primarily undertaken in 1988-89 by the then Minister for Aboriginal Affairs, Mr Gerry Hand, and his staff assisted by a Task Force set up in the Department of Aboriginal Affairs (DAA). The determination of the various jurisdictions and boundaries was essentially based on a process of extensive consultations with Aboriginal communities and organisations around the country, both as to the numbers of regions and zones, and as to their actual boundaries. There is little information on public record indicating how these regions were demarcated, but they were based on the following factors: Aboriginal cultural, linguistic and social factors, contemporary geographic realities (like location of service centres), and possibly other factors which Aboriginal organisations articulated. The consultations with Aboriginal groups resulted in a much larger number of zones and regions being created than originally planned, and the dropping of the original administrative criterion for zone and region boundaries in favour of criterion based on commonality of culture and other such factors. The

consultation process resulted in the number of zones being increased to 17 from the planned six, and the number of regions to 60 from the planned 28. Population size was not the major consideration as there is a wide range; the Senate Select Committee which considered the *Aboriginal and Torres Strait Islander Commission Bill 1988*, in recognition of the inequalities in representation that this could cause, adopted a sliding scale to link the size of regional councils to their populations (pers. comm., M.C. Dillon, former member of ATSIC Task Force).

2   The Purposes of the Analysis

As regions form important ATSIC planning and expenditure target units, it is of interest to examine whether there are any substantial differences between the socio-economic status of their Aboriginal residents. Previous analyses have shown considerable geographic differences in Aboriginal socio-economic status between states and sections-of-state (Altman and Nieuwenhuysen, 1979; Fisk, 1985; Tesfaghiorghis and Altman, 1991; Tesfaghiorghis, 1991). It has been shown that the Aboriginal demographic structure, characterised by a rapid growth of the working-age population, poses a serious challenge to improving future levels of employment and achieving employment equality with the rest of the Australian population by the year 2000 (Tesfaghiorghis and Gray, 1991). This paper uses detailed 1986 Census tabulations by ATSIC regions, prepared by the Australian Bureau of Statistics and made available to the Centre for Aboriginal Economic Policy Research by ATSIC, to test for variability in Aboriginal socio-economic status between ATSIC regions. Because it is difficult to get a concise summary of a large number of census variables for 60 regions, the analysis here is limited to a few selected indicators. These are population size, proportion of the 15-24 age group still attending school, per cent of those aged over 15 years with educational qualifications, employment/population ratio of the 15-64 year old population, the labour force as a proportion of the 15-64 age group, unemployment level of the labour force aged 15-64 years, annual individual gross median income and home ownership. These indicators along with measures of central tendency and dispersion by regions are presented in Table 1.

3   Population

The 60 ATSIC regions show considerable variation in population size, ranging widely from about 600 people in Deakin and Yulara Regional Councils in the Central Australia Zone to 18,751 in Sydney Regional Council, indicating that the maximum regional population was 31 times larger than the smallest. Between these extremes, population size by regions was not evenly distributed: 19 regions had populations between 600 and 2,000, 27 had between 2,000 and 5,000, 11 had between 5,000 and 10,000 and three had 10,000 or more (see column 2 of Table 1). Population sizes were smallest (under 5,000) in all the regional councils within Western Australia-North, Central Australia and Western Australia-South Zones. Other zones also contained regions with small population size, but had one or two

Table 1: Selected Socio-Economic Indicators by ATSIC Regional Councils: 1986

Regional Council	Pop.	At school 15-24 %	Qualified at 15 yrs %	Emp./pop. ratio %	In labour force 15-64 %	Labour force unemp. %	Annual median income	Home owner %
NSW-Metropolitan, Sydney	18,751	16	16	44	60	27	7,900	33
NSW-West								
Wangkumara	3,407	14	6	23	48	53	5,700	24
Deniliquin	990	19	10	27	52	49	5,400	25
Wirawongam	7,176	20	10	26	50	48	5,900	27
Gomilaroi	3,022	12	7	21	52	59	5,700	17
Murrumbidgee	3,911	17	10	31	53	42	6,000	24
NSW-Far West	1,662	12	4	21	46	55	5,600	29
NSW-East,								
Northern Rivers	4,832	21	10	24	51	54	5,700	26
Bogong	1,984	13	19	57	67	15	11,200	32
Umbara	2,854	17	10	29	52	44	5,800	26
Quirindi	2,388	17	10	32	54	41	5,900	31
Taree	7,214	17	13	29	51	43	6,000	32
Tingha	2,002	16	10	20	48	58	5,700	17
Victoria								
Bairnsdale	3,032	16	22	37	54	32	6,800	31
Halls Gap	3,405	15	15	40	56	30	6,900	37
Melbourne	6,173	16	18	50	62	18	8,500	43
Qld-Metropolitan Brisbane	13,436	16	13	39	56	32	6,800	31
Qld-Far North & communities								
Peninsula	5,240	12	3	33	45	26	6,800	8
Gulf	2,370	10	3	48	52	8	7,400	3
Woorabinda	1,676	14	2	33	51	36	6,300	0
Yarrabah/Palm	2,959	11	2	22	52	57	5,600	12
Qld-North								
Cairns & district	8,837	12	9	25	49	50	5,600	24
Townsville	8,395	19	9	34	52	35	6,400	20
Qld-South								
Gulburri	4,331	18	6	35	55	37	6,300	28
Mount Isa	3,535	16	7	38	53	28	7,600	25
Rockhampton	6,219	19	8	38	56	31	6,300	26
Torres Strait Thursday Island	4,224	26	8	36	46	20	6,000	26
Central Australia								
Alice Springs	3,800	16	6	32	44	27	6,300	14
Deakin	654	6	7	39	47	17	6,400	4
Harts Range	1,620	8	1	16	59	72	5,600	22
Indulkana	2,012	9	2	41	48	16	6,100	7
Papunya	3,963	6	1	13	33	62	5,500	22
Warburton	991	8	1	33	39	14	4,600	11
Yulara	599	2	3	25	61	59	5,300	23

Table 1: Selected Socio-Economic Indicators by ATSIC Regional Councils: 1986 (Continued)

Regional Council	Pop.	At school 15-24 %	Qualified at 15 yrs %	Emp./pop. ratio %	In labour force 15-64 %	Labour force unemp. %	Annual median income	Home owner %
South Australia								
Kaurna	5,826	14	14	34	54	37	6,600	25
Pt Augusta & area	2,813	14	7	29	50	42	5,900	14
Murrundi	2,182	17	9	34	54	37	6,100	24
Wangka Pulka	1,083	17	7	29	53	46	5,800	13
WA-Metropolitan								
Karkarnyiny	10,283	11	12	26	45	41	6,000	28
WA-North								
Kutjungka	760	15	1	44	48	9	5,500	7
Fitzroy Crossing	1,473	13	0	18	38	52	4,900	10
Yarleyel	1,317	11	3	23	30	23	6,800	12
Western Desert	1,116	8	1	44	49	9	5,700	8
Wunan	1,703	10	5	31	47	35	5,400	8
Kularri	2,473	15	7	32	43	26	7,400	13
Ngarda Nguli	3,668	10	7	27	47	42	5,900	6
Jayida Buru	1,783	14	11	36	48	27	7,700	13
WA-South								
Yamatji	4,297	12	6	26	48	45	6,300	16
Wongi	2,417	9	5	22	44	50	5,500	20
Kaatanyiny	3,591	10	7	22	44	50	5,700	20
Wyalcatchem	1,587	11	5	25	46	46	5,800	15
Tasmania								
Launceston	6,716	17	16	49	62	21	7,500	55
NT-Northwest								
Daly River	1,480	9	3	17	19	12	5,200	6
Yilli/Rreung	6,480	21	11	36	49	27	8,300	26
Tiwi Islands	1,651	17	3	30	41	27	6,100	5
NT-Northeast								
Jabiru	2,538	12	3	18	24	25	5,900	27
Victoria River	1,708	6	1	32	36	10	6,000	13
Mataranka	3,480	10	5	27	42	34	5,900	17
Yapakurlangu	2,255	4	3	20	41	51	6,900	24
Miwatj	5,155	16	2	27	36	24	5,400	25
Aborigines	227,495	16	9	33	50	35	6,200	27
Non-Aborigines	15,374,661	22	30	68	69	9	9,700	70
Max/min ratio	31	13	19	4.4	3.5	9	2.4	18
Mean	3,845	13.6	7.1	30.8	48.2	35.7	6,263	20.7
Standard dev.	3,218	4.5	4.7	9.2	8.7	15.4	1,029	10.9
Coef. var. (%)	83.7	33.5	66.0	29.7	18.0	43.2	16.4	52.5

Thirty two regional councils have changed their name as allowed by the *Aboriginal and Torres Strait Islander Commission 1989*; the updated names are used here and in the attached ATSIC map. The maximum/minimum ratio excludes zero values from the calculations. 'Coef. var.', the coefficient of variation, gives the ratio of the standard deviation to the mean multiplied by 100.

regions within them with larger populations. The metropolitan regional councils had the largest Aboriginal population: Sydney, 18,751; Brisbane, 13,436; Karkarnyiny (Perth), 10,283; Melbourne, 6,173; and Kaurna (Adelaide), 5,826. Other regions with relatively large Aboriginal populations were Cairns (8,837), Townsville (8,395), Taree (7,214), Wirawongam (7,176), Launceston (6,716), Yilli/Rreung (6,480), Rockhampton (6,219), Peninsula (5,240) and Miwatji (5,155).

Not only do ATSIC regional councils differ in population size, but they also exhibit enormous differences in area. Their areas range from under 1,000 to 499,220 square kilometres. The remote regions are mostly large and sparsely populated, though they also show considerable variations. In these regions population may be clustered in a few localities.

4 Education

Aborigines in general have low formal educational status (Tesfaghiorghis and Altman, 1991). Their low educational status is associated with low socio-economic outcomes like low incomes, low employment and high youth and overall unemployment (Jones, 1991; Ross, 1991). The generally low Aboriginal educational status masks the marked differences between ATSIC regions. These variations are shown in Table 1 using two education indicators: the percentage of 15-24 age group still attending school and the percentage of the population aged 15 years and over that had some formal qualifications (see columns 4 and 5 of Table 1).

The percentage of the 15-24 age group still attending school varied from 2 per cent in Yulara to 26 per cent on Thursday Island. The extremity of the difference was such that while in 11 regions under 10 per cent of the 15-24 age group were still attending school, this proportion was as high as 15 to 26 per cent in 27 regions. The percentage who were qualified also varied considerably. Educational qualification showed the largest variation after population, as indicated by a coefficient of variation of 66 per cent. The percentage qualified varied from zero or a low of under 5 per cent qualified in 20 regions, to 10 to 19 per cent qualified in another 19 regions. The regional councils where Aborigines had relatively high educational qualifications were all the regions in Victoria and the New South Wales-East Zones, the regions of Sydney, Launceston, Brisbane, Kaurna, Karkarnyiny, Yilli/Rreung, Mount Barnett, Wangkumara, Wirawongam and Murrumbidgee. In general, the higher the proportion of the 15-24 age group who stay in school, the higher the proportion of persons with educational qualifications. The correlation between school attendance and educational qualification is positive, though not strong (r = 0.50). Regions such as Thursday Island, all the regions in Queensland-South Zones, Townsville, and Alice Springs have relatively high proportions of Aborigines staying at school, but they leave school with low levels of qualifications.

5 Employment

Aboriginal employment is measured by the ratio of the number of employed persons aged 15-64 years to the total population aged 15-64 years times 100. This measure is referred to as the employment/population ratio (see column 5 of Table 1). The ratio measures the current level of employment among the Aboriginal population while avoiding problems, such as the 'discouraged worker effect', associated with accurately defining those who are unemployed. Lower employment/population ratios may reflect either Aboriginal decisions not to seek employment in the formal labour market at the wage currently offered or a lack of demand for labour in the areas where most Aborigines live. Aboriginal employment/population ratios varied from 13 to 57 per cent, compared to an overall average of 33 per cent for all Aborigines and 68 per cent for the non-Aboriginal populations. When compared to the labour force indicator, the employment/population ratio reveals a much greater difference between the Aboriginal and non-Aboriginal populations. Eighteen regions had 25 per cent or less of their working age population employed, while at the other extreme, nine regions had employment/population ratios of 40 to 55 per cent.

The differences in employment/population ratios between regions are statistically significant at the 5 per cent level, and the variation is considerable as measured by a coefficient of variation of 29.7 per cent. The employment/population ratio shows a moderate to strong positive correlation with educational qualifications (r = 0.49), median income (r = 0.68), labour force (r = 0.57), school attendance (r = 0.28), and a negative correlation with the unemployment rate (r = -0.71).

5.1 Labour Force

Levels of labour force participation of a population indicate the prevailing degree of economic activity and the availability of employment opportunities. Comparisons of labour force participation of Aboriginal people by regional councils and between the Aboriginal and non-Aboriginal populations give useful insights into their employment situation and the degree of integration or exclusion from the mainstream labour market. Labour force participation is positively related to educational qualifications (r = 0.61), median income (r = 0.44) and home ownership (r = 0.44).

An examination of Aboriginal labour force participation by regional councils (see column 6 of Table 1) shows that the variations were more marked between Aborigines than between the Aboriginal and non-Aboriginal populations. Bogong, Melbourne, Launceston and Sydney had high levels of labour force participation; the level of labour force participation in regions such as these was about 2.5 to 3.3 times higher than that in regions with the lowest level. In many regions the majority of the working age population was not in the labour force. Extreme cases of low participation were Daly River, Jabiru, Yarleyel, Papunya, Victoria River and Miwatji where the proportion of the population in the labour force was only between 19 and 36 per cent. Only in 28 out of the 60 regions were more than half of the working age

population in the labour force. These low labour force participation rates (which are due to comparatively low and declining employment and high and rising unemployment, see Tesfaghiorghis and Altman, 1991), have adverse effects on income. As regions with low labour force participation rates are mainly rural and remote, the cause of such low participation is largely due to an absence of formal employment opportunities in these areas.

5.2 Unemployment Levels

Aborigines experience relatively high unemployment (see column 7 of Table 1). The majority of regions (45) had unemployment levels three times higher than the level for the non-Aboriginal population. Even Aborigines in the metropolitan centres of Sydney, Brisbane, Kaurna and Karkarnyiny experienced high unemployment. Of the metropolitan centres, Aborigines in Melbourne experienced the lowest unemployment, with a rate of 18 per cent. The extent of unemployment is demonstrated when it is recognised that 26 regional councils had 40 per cent or more of their labour force unemployed. In 16 of these regions the unemployed comprised about 50 per cent or more of the labour force. However, there were some regions with apparent low levels of unemployment, 8 to 12 per cent, comparable to the rates of 9 per cent for the non-Aboriginal population; these were Gulf, Kutjungka, Western Desert, Victoria River and Daly River. There were other regions with comparatively low levels of unemployment: Warburton (14 per cent), Bogong (15 per cent), Indulkana (16 per cent) and Deakin (17 per cent). However, it is unclear to what extent such low levels were due to under-enumeration of the unemployed (Smith, 1991a). Compared to the employment/population ratio and labour force, Aboriginal unemployment showed the largest variation by region, as measured by the maximum/minimum ratio and the coefficient of variation (see Table 1).

The high levels of Aboriginal unemployment in the majority of regional councils indicates a lack of employment opportunities. The difference between metropolitan and remote communities is one of degree, but in both geographical contexts Aboriginal unemployment is very high. The analyses here are restricted to the overall unemployment levels in the Aboriginal labour force, but previous analyses have shown that the problems and magnitude of Aboriginal unemployment are even greater among young people and women (Daly, 1991; Miller, 1991; Tesfaghiorghis and Altman, 1991; Tesfaghiorghis, 1991).

In the light of the high overall Aboriginal unemployment levels, one has to be a little sceptical about the apparently low levels of unemployment in some regions. On one hand, such low levels may merely reflect a discouraged worker effect, 'which suggests that where job prospects are depressed, individuals may be discouraged from actively seeking work' (Miller, 1991: 80). Alternatively, low rates could reflect participation in the Community Development Employment Projects (CDEP) scheme in some communities, or be a result of inaccurate statistics. Finally, low unemployment rates may be merely caused by low labour force participation, as is the case in Daly River, Jabiru, Victoria River, and Miwatji.

6   Annual Individual Median Income

Low educational and employment status generally result in low income. Previous
analyses have shown that Aboriginal individual, family and household incomes at
the national, state, and section-of-state levels were considerably lower than that for
the non-Aboriginal population (Treadgold, 1988; Gray and Tesfaghiorghis, 1990;
Jones, 1991; Tesfaghiorghis, 1991; Tesfaghiorghis and Altman, 1991). Studies have
also shown that Aboriginal incomes were higher in urban than in rural areas; that
Aborigines in major urban areas had higher incomes than those in other urban areas;
and that considerable differences in Aboriginal income exist between States and
sections-of-States (Altman and Nieuwenhuysen 1979; Fisk 1985; Gray and
Tesfaghiorghis 1990; Tyler 1990; Tesfaghiorghis 1991; Tesfaghiorghis and Altman
1991). The studies also showed that Aboriginal incomes were especially low at the
level of the individual, lone-person-households and single-parent families,
irrespective of location. On the other hand, families other than single-parent families
had relatively high incomes (Gray and Tesfaghiorghis, 1990; Tesfaghiorghis, 1991;
Tesfaghiorghis and Gray, 1991). Low individual and single-parent family incomes
are mainly due to low employment incomes and high dependence on welfare
payments or the CDEP scheme. The higher incomes of families (other than single
parent families) probably resulted from the pooling of employment incomes and the
social welfare payments of family members. As expected, individual median
incomes positively correlated with employment/population ratios (r = 0.68),
education (r = 0.61) and labour force (r = 0.44), and negatively correlated with
unemployment (r = -0.40). Thus, annual individual median income is used for
regional comparison as a rough indicator of variation in income between regional
councils.

Individual incomes for all regions, but one, fell far short of the overall average
income for the non-Aboriginal population. With the exception of the high income of
Aborigines in Bogong Regional Council (because of its incorporation of the high-
income Australian Capital Territory), regions annual median individual incomes
ranged from $4,600 in Warburton to $8,500 in Melbourne, compared to an overall
average of $6,200 for Aboriginal and $9,700 for the non-Aboriginal populations.
The real disposable income for many Aborigines might be much lower than
suggested by these gross incomes. Incomes were lower or near the Aboriginal
average of $6,200 in 44 out of the 60 regions. These low-income regions were
concentrated in the following zones: New South Wales-West Zone, New South
Wales-East Zone (except for Bogong Regional Council), Central Australia, Western
Australia-South,   Northern   Territory-Northeast,   Northern   Territory-Northwest
(except Yilli/Rreung Regional Council), South Australia Zone (except Kaurna
Regional Council), Western Australia-metropolitan, and Western Australia-North
(except Mount Barnett Regional Council). Aborigines had comparatively high
incomes in all regional councils within Victoria, and in the regional councils of
Bogong, Launceston, Sydney, Yilli/Rreung, Kaurna and Mount Barnett. It has been
shown that the better socio-economic status of Aborigines in the Australian Capital
Territory, Victoria and Tasmania was due to their relatively higher education and
employment   levels,   and   their   relatively   lower   levels   of   unemployment

(Tesfaghiorghis, 1991: 15-21). In the case of the Australian Capital Territory and Victoria, this was also related to the better economic status of the non-Aboriginal population in these States/Territories compared with other States/Territories.

7   Home Ownership

Home ownership is a useful indicator of economic status and well-being. In the case of Aboriginal people, 'There seems to be, in housing, the clearest possible indication of the under-privileged socio-economic position of Australia's Aboriginal population.' (Altman and Nieuwenhuysen, 1979: 16). 1986 Census data show that Aboriginal home ownership had a moderately positive correlation with educational qualifications (r = 0.69), labour force participation (r = 0.44), median individual income (r = 0.38) and the employment/population ratio (r = 0.26); and a very low correlation with the unemployment level (r = 0.08).

In 1971, only 19.9 per cent of Aboriginal private dwellings were owner-occupied compared with 67.3 per cent for the total population (Altman and Nieuwenhuysen, 1979: 16-7). The situation in 1986 has shown only modest improvement, assuming that housing data are comparable. In 1986, Aboriginal home-ownership was 10.6 per cent and another 15.9 per cent were in the process of purchasing their houses, giving a total of 25.6 per cent of Aboriginal homes that were either owned or being purchased. In contrast, 38.5 per cent of the non-Aboriginal population own their homes and another 31.1 per cent were purchasing their homes, giving a total of 69.6 per cent of non-Aboriginal homes that were either owned or being purchased. The proportion of homes which were owned, plus those being purchased, is used here as an indicator to reflect Aboriginal home-ownership by region (see last column of Table 1). It must be noted though that this indicator reveals nothing about the quality of Aboriginal housing, nor the cultural appropriateness of the housing stock.

There were significant differences in the levels of Aboriginal home-ownership between regions; this varied from no or little ownership in several regions, to 43 per cent in Melbourne and 56 per cent in Launceston. Part of the reason for the low level of home-ownership in some regions is the community ownership of homes. In general, home-ownership is relatively high in metropolitan centres where it ranged from 25 to 33 per cent, excluding the high figure for Melbourne. Among the non-metropolitan regions, above average Aboriginal home-ownership (from 28 to 37 per cent) was observed in Halls Gap, Bairnsdale, Taree, Quirindi, New South Wales-Far West and Gulburri Regions. In 10 regions (Woorabinda, Gulf, Deakin, Tiwi Islands, Daly River, Ngarda Nguli, Kutjungka, Indulkana, Western Desert and Wunan) either none or less than 10 per cent of Aborigines owned their homes. These figures reveal the marked regional contrast in Aboriginal home-ownership, and clearly demonstrate the extent of low home ownership in some areas by average Aboriginal standards, let alone those of the non-Aboriginal population.
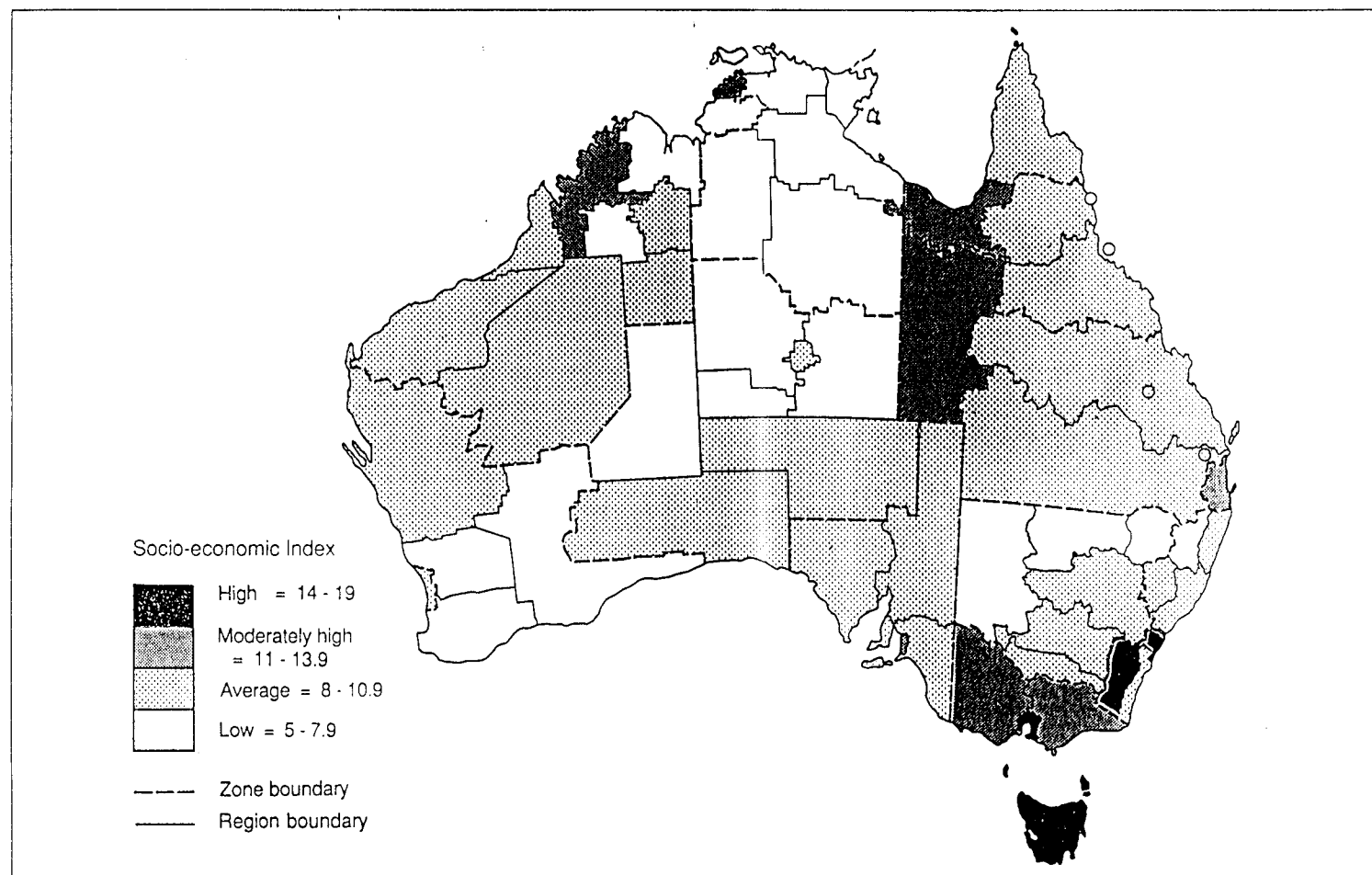
8   Socio-Economic Status Index

Regional variations in Aboriginal socio-economic status can be demonstrated using an index of socio-economic status calculated for the Aboriginal population of each region. There have been some such studies for the total population, but none for the Aboriginal population (Sorensen and Weinand, 1991). Three variables were arbitrarily chosen to capture the wide Aboriginal differences between regions. These were the percentage qualified, the employment/population ratio and median individual income. Scores were assigned for each region on each of the three indicators as follows: a score of 3 if the indicator for a particular region is equal to the mean of the distribution; a score of 4 if the value for the region is plus one standard deviation and 2 if it is less by one standard deviation; a score of 5 or 1 if it is two standard deviations higher or lower. Then the scores on each of the three indicators for each region are added to get an overall index, which ascribes equal weight to each of the indicators. If a region is average on each of the indicators, then it would have an index of 9. The index for the regions ranged from 5 in several regions to 19 in Bogong.

Geographic variation in the socio-economic status index, revealing some interesting patterns, is displayed in Figure 1. The areas of high Aboriginal socio-economic index scores are separated from the regions of low socio-economic status by a large area of average index. Areas of high Aboriginal socio-economic status are clustered in relatively small regions in south-eastern Australia. The whole of western New South Wales, the remote regions of the Northern Territory, central Australia and southern parts of Western Australia are characterised by low Aboriginal socio-economic status. Figure 1 also shows the urban-rural influence and illustrates tiers of urban socio-economic status. The index indicates that Aborigines are better off if they live in the metropolitan areas of the south-east and their immediate hinterlands - Sydney, the Australian Capital Territory and Melbourne. The Australian Capital Territory has the highest socio-economic status for both the Aboriginal and non-Aboriginal populations. This is primarily due to better paid employment in the federal bureaucracy, particularly in the Department of Aboriginal Affairs (now ATSIC) and associated institutions (Tesfaghiorghis, 1991: 15-23). A second tier is comprised of the Aboriginal residents of the metropolitan areas of Brisbane and Adelaide who are characterised by moderately high socio-economic status; the hinterland residents of these regions had average socio-economic status. The Aboriginal residents of Perth, the third urban tier, are the exception having an average status, while those in the vast hinterland had a low socio-economic status.

The socio-economic map also reflects regional clusters or islands of moderately high socio-economic status amidst vast areas of low or average socio-economic status. Examples are Darwin and Alice Springs, probably due to high Commonwealth Government subvention as well as the urban influence, the West Kimberley, Mt Isa and the Gulf region in Queensland. The better status of these remote regions is partly due to the employment generating influence of the CDEP scheme. These particular cases demonstrate that Aborigines in some remote areas do as well as those in urban areas. However, it is worth recognising that the selected indicators are more

Figure 1: Aboriginal Socio-Economic Status Index by ATSIC Regions: 1986 Census

Socio-economic Index

High = 14 - 19

Moderately high
= 11 - 13.9

Average = 8 - 10.9

Low = 5 - 7.9

— — — Zone boundary

———— Region boundary

appropriate for urban than rural Aborigines. For instance, possessing educational qualifications may not be associated with employment in rural areas where active labour markets are small or non-existent (Altman, 1991). And even though urban areas show higher socio-economic indexes, the cost of living may be higher than in some rural areas (Smith, 1991b).

8.1 Factors Affecting Aboriginal Employment and Income

The foregoing variables are jointly analysed here to establish which factors have a significant and important influence on Aboriginal unemployment and individual incomes. The relationship between the dependent and independent variables is assumed to be linear and a multiple regression is fitted with the regions taken as the units of analysis. A regression is fitted, taking average individual income for the region as a dependent variable and the employment/population ratio, educational qualifications and home ownership as independent variables. The computation uses a forward stepwise regression, which selects, for the regression model, the next independent variable with the highest partial correlation with the dependent variable; and eliminates insignificant or unnecessary variables.

The regression model fitted to individual income shows that employment/population ratio and education were the significant factors affecting individual income (F = 37.1, 2, 57 degrees of freedom, significant at 0.05 level). These two variables accounted for 55 per cent of the variance in individual income (adjusted R-squared). The employment/population ratio is the most important determinant of income as it explained 45 per cent of the variance in individual income.

This multivariate analysis did not consider all factors that could affect Aboriginal incomes because of lack of appropriate data. The results, however, clearly indicate that increasing education and employment will significantly improve incomes. The regional indicators used here have to be related to other factors that affect regional differences, such as ATSIC and other government departments' program expenditures and provision of infrastructure, as well as cultural variations within Aboriginal society itself (Taylor, 1991). While the results of this study are informative for policy makers and planners, and are in that sense useful, further detailed research that jointly considers all the relevant factors that influence variability in Aboriginal regional socio-economic status is needed. The data analysed here predate the implementation of the Aboriginal Employment Development Policy (AEDP). It will therefore be necessary to undertake comparative analysis of these indicators and the indicators from the 1991 Census in order to assess the impact of the AEDP on Aboriginal employment, income and educational status.

9   Conclusion and Policy Implications

Under the rubric of generally low Aboriginal socio-economic status, ATSIC regions exhibit marked differences. The socio-economic status index showed that there are some areas that are doing relatively well. However, it was shown that the socio-

economic status of Aborigines varies widely even between neighbouring areas. For example, within New South Wales, Aboriginal people have relatively high and low socio-economic status in adjoining eastern and western parts. The index also indicated some exceptions to the generalisation that remote regions had low socio-economic status. Aboriginal people living in some of these regions, such as those in Darwin and its environs, the West Kimberleys and the Gulf had a higher index. These spatial variations in the socio-economic index have policy relevance if the attainment of minimum standards of living in all regional council jurisdictions is taken as a public policy goal. The key point to note about this relative socio-economic index is that it does not involve any comparison with the mainstream society's economic status. The regional councils also show extreme differences in size, both in terms of geographic areas and population. The regions with small populations have vast areas which may pose serious administrative problems in the provision of physical infrastructure and essential services.

The Federal Government is committed to raise Aboriginal economic status through implementation of the AEDP. The AEDP has goals of employment and income equality between Aborigines and the rest of the Australian population by the year 2000; and the reduction of welfare dependency to commensurate levels for both segments of the total population. In view of demonstrated regional differences in socio-economic status, a key policy issue is whether the same level of program expenditure is to be devoted to each region, or whether resources should be allocated to regions on the basis of relative need. Regional differences suggest that the ATSIC expenditure cake should not be divided merely on simple measures like population size. Remote regions face a high degree of locational disadvantage as they cannot access mainstream programs to the same extent as the residents of urban areas. They are also locationally disadvantaged with respect to access to mainstream labour markets. Taking such above factors into account accords with principles of equity and social justice, but it is not clear whether such factors are of primary concern in the discretionary decisions of ATSIC Commissioners. Furthermore, as ATSIC programs only account for an estimated 40 per cent of total Commonwealth expenditure on Aborigines (Altman and Sanders, 1991), the allocation of ATSIC funds based on relative need may be offset by the allocations of other government departments. Consequently, there is an urgent need for total coordination of Aboriginal programs and expenditures, and the setting of consistent policy goals. These findings highlight the establishment for both general and particular policies to improve the overall economic status of Aboriginal people and to address economic and social imbalances between regions.

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Who Pays for Community Care? Income Support and Caring

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1 Introduction

Community care policies focus on the maintenance of a frail or disabled person in the community rather than on care offered by the community. Programs generally concentrate on the needs of the disabled person and services which will prevent premature residential placement. The needs of and support for those who provide the care are often overlooked.

Community services generally supplement support from families. It is the family carers who bear the major costs in terms of stress, workforce participation, and income and other lifestyle opportunities foregone. This paper explores programs and policies providing income support to carers to assist with some of these costs of care. The paper is based on a study of the economic, social and emotional costs of caring for dementia being carried out through the Social Work Department of the University of Queensland. 243 carers were interviewed of whom 127 were caring at home for their relative with dementia. Dementia offers a particular challenge to community and aged care policies in terms of the proportion of the population at risk and the extensive and long term nature of the care required.

Dementia also offers a particular challenge to family carers with the impairment of intellectual, memory and social functioning; decreasing physical mobility; and changes in behaviour. Family carers of relatives with dementia take on a long term commitment involving multiple and changing tasks and constant supervision. Income support for such community based carers is complex, not well understood and not co-ordinated. It is spread across a number of Commonwealth Government Departments: Social Security; Employment, Education and Training; Health, Housing and Community Services; and Taxation. This paper explores the intersection of these four systems in relation to the provision of income support for carers.

The community sample was drawn from referrals from community agencies and hence represents people within some network of services. Any comments made about knowledge and use of and access to services over-represents service users. We know little about those who had been deterred, deflected or excluded from services.

2   Who are the Carers?

Before exploring income support programs, it is important to examine who are the carers of people with dementia and what are their major sources of income.

Figure 1 indicates that although men and women are almost equally represented among those with dementia who are being cared for at home, carers are predominantly women.

Figure 2 explores the relationship of the carer to the person being cared for. Although spouses are the most common carers, wives clearly outnumber husbands. Daughters are much likely to care than either husbands or sons. Other females - sisters, daughters-in-law, nieces - also outnumber sons. Non-family carers are almost non-existent.

Caring for dementia patients in the community is a family task.Some of these features may contribute to carers not identifying themselves as such and seeking out financial support specifically for themselves.   Families (mostly wives and daughters) are generally expected to undertake caring roles without any economic value being placed upon it. Because of this non identification of caring as having an economic value or economic consequences, many carers are 'hidden carers' in that they do not receive any additional income support for their caring responsibilities or the economic and labour force losses these have incurred.

Figure 3 indicates that most carers receive some pension or benefit from the Department of Social Security or the Department of Veterans' Affairs as their major income source. This reflects the age of the carers and the fact that most are spouses. Spouse carers are eligible for married rates of age/service pensions or wives pensions. The majority of carers are not receiving specific income support because of their caring responsibilities.

Only 12 per cent of our sample of carers are receiving salaries. This reflects not only the age of the carers but also the nature of the caring tasks. Of the 31 per cent who were working at the time of the onset of the dementia in their relative, 14 per cent permanently left their jobs and a further 8 per cent complained of other effects on employment: less overtime, repeated interruptions, reduced workload, a move to part time work and periods of unpaid leave. Of the 14 per cent of carers who said they would work outside the home if it were not for their caring responsibilities, almost 90 per cent were women.

Less than 5 per cent of carers in our study were eligible for and receiving Carer's pensions.

3   Income Security System

The Carer's Pension is paid at Age Pension rates and is income and asset tested as the Age Pension. The carer is tested on spouse's income if married. The Carer's

Figure 1: Gender: Patient and Carer

FEMALE
47

FEMALE
80

MALE
20
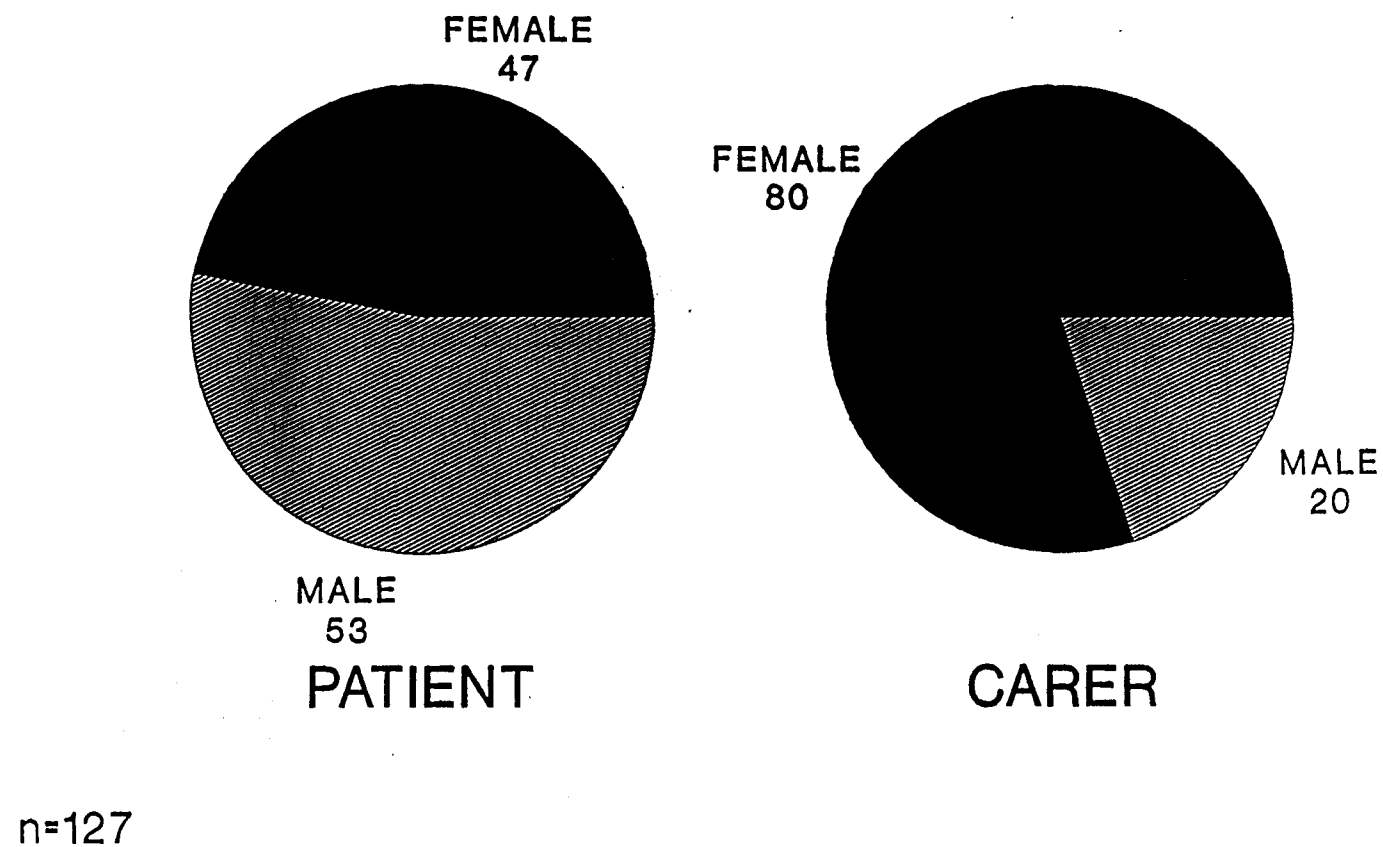
MALE
53

PATIENT

CARER

n=127
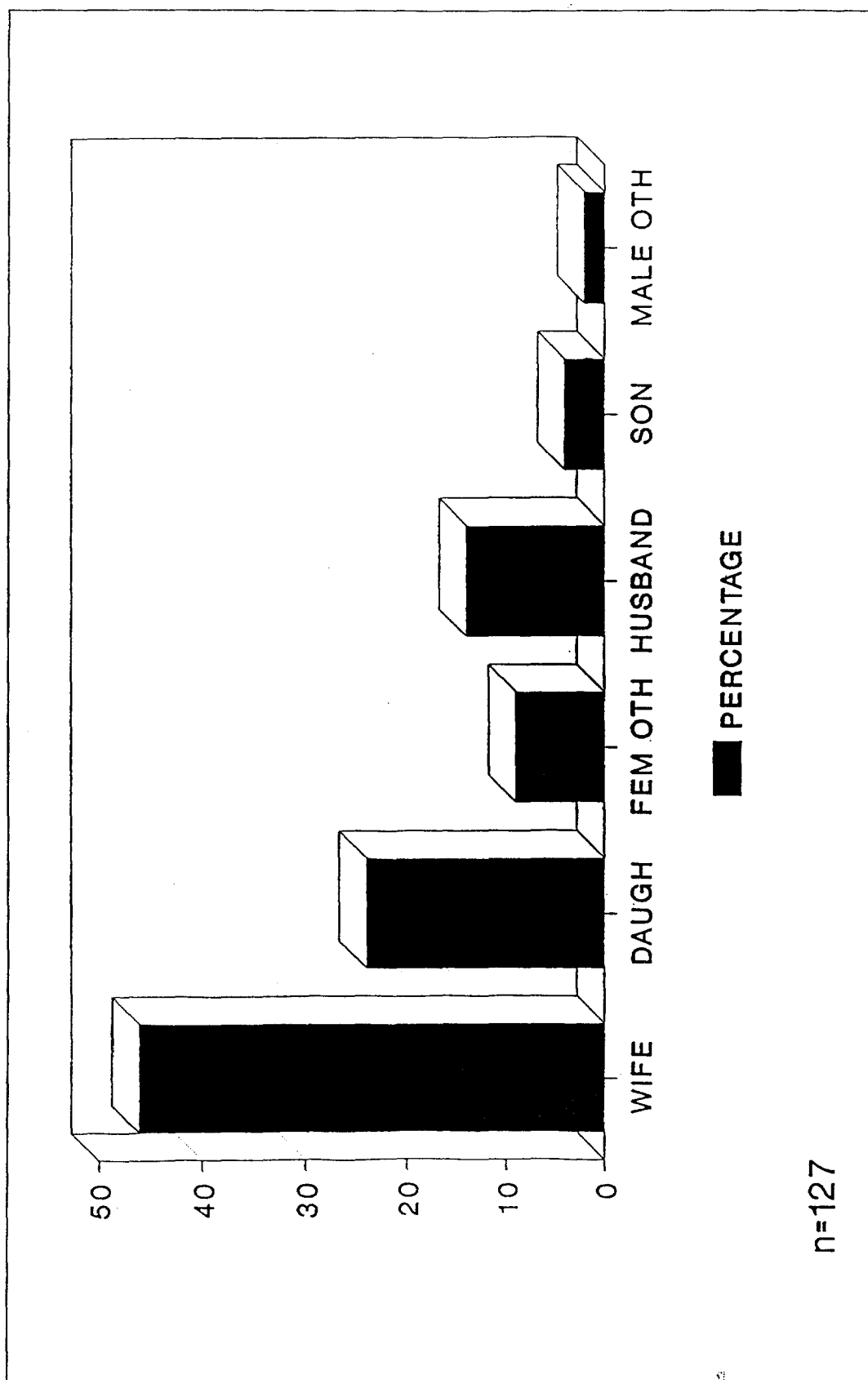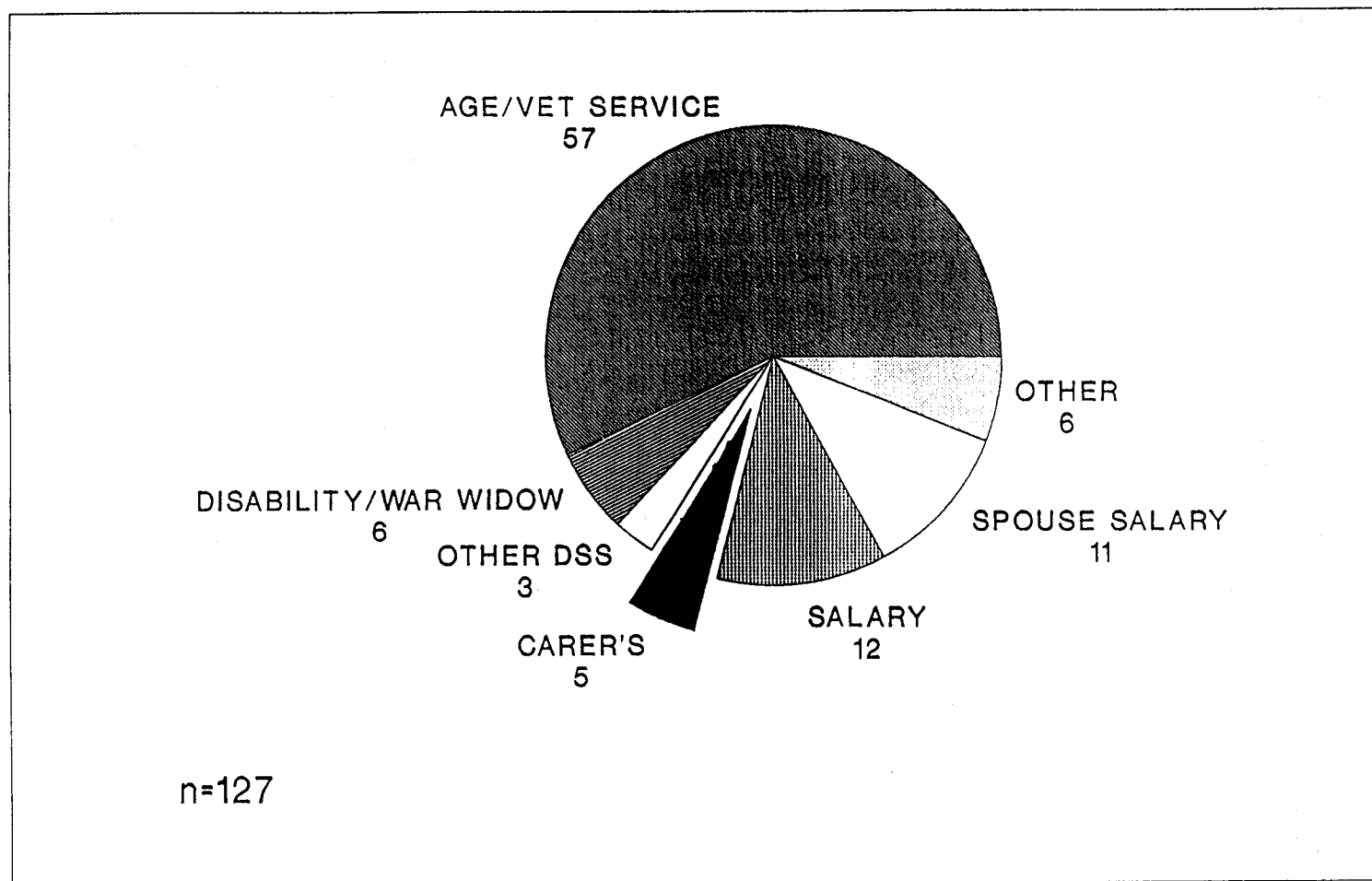
Figure 2: Relationship to Patient

Figure 3: Carers Primary Income Source

Pension was introduced to help compensate people who have given up employment to care for a disabled person. There is an underlying presumption that either married women do not incur such costs or do not need to be compensated if these costs are incurred. The majority of married carers looking after aged relatives are excluded regardless of whether they have given up full or part time workforce participation to care. Our study suggests that the bulk of these unpaid carers are women.

The co-residency or adjacent residency requirement of Carer's Pensions excludes some carers who maintain two households - their own and that of their elderly relative.

Within Australia the number of recipients of Carer's Pensions is small but increasing. Given the limiting eligibility requirements of Carer's Pensions, it should be acknowledged that this greatly underestimates the number of persons involved in caring. In our study only 6 people were receiving Carers Pensions. From this small group a picture of significant disadvantage from a lack of co-ordinated policy for carers emerges.

Our contact suggests Carer's Pensions are not well known. Some carers experienced significant delays in hearing about Carer's Pensions, one carer spending much of his life savings before becoming aware of the availability of Carer's Pensions. There is no backdating provision to cover this situation. Others gave up work, moved place of residence to assume caring responsibilities, but were not immediately eligible because a definite diagnosis of their parent had not been made.

Carers on Carer's Pensions not only gave up their usual place of residence but also workforce participation, occupational superannuation, private medical insurance and the social networks associated with workforce membership. Carer Pensioners also lacked security of income. Their pension ceases if their relative is placed in a nursing home or hostel or may cease if they utilise their full entitlement of 63 days respite care in one block. Carers are entitled to a bereavement payment of 7 payments after their relative has died but not if the person is placed in residential care.

Our study suggests placement is generally experienced as a very stressful time with caregiving responsibilities changing but continuing. Sixty-eight per cent of carers who had placed their relative indicated that they were 'very' or 'extremely' stressed at that time.

Apart from losing the pension at this time, there is no provision to retain Health Care Cards for a period to ease the adjustment back into employment. Return to the workforce presents particular problems for younger carers.

> The kind of work people have in midlife has important bearing
> on financial resources and personal skills in old age. (Kendig
> and McCallum, 1986: 15)

We must therefore be also concerned about financial support for the old age of these mid-life carers who live on a fixed income for an extended period, are often not homeowners, and have moved out of the labour force at an age at which consolidation of income and assets usually occurs. In our sample the age range of recipients of Carer's Pensions was 32 to 58 years with most carers being in their early fifties. Those who leave the labour force in their forties or fifties are likely to experience major difficulties with re-entry.

What sort of labour market re-entry programs are available to such carers?

4 Labour Market System

The Department of Employment, Education and Training (DEET) offers no specific programs for carers as the main thrust of policy is the long term unemployed, disabled persons and sole parents.Although very much smaller in number, younger carers who leave the workforce suffer many of the disadvantages of sole parents whose workforce participation is also limited by caring responsibilities. They often lose personal and job skills, confidence and the social networks associated with employment. Carers have no reviews of their employment and educational prospects and skills, no introduction from the Department of Social Security to facilitate entry into DEET programs when, as is inevitable, the Carer's Pension ceases due to the death or institutional placement of the family member.There is little encouragement to continue some part time work while caring given the full time care eligibility requirement.

Carers who have been on Carer's Pensions are eligible for all mainstream Commonwealth Employment Service and DEET programs but must effect their own entry to these systems and establish their needs and eligibility. They do have not their re-entry to the labour market planned and facilitated as sole parents have through the JET program. Hidden carers, mostly married women, also need to be located and assisted with labour market re-entry when caring tasks have ceased. There are no specific linking programs for them. The labour market offers no paid leave or unpaid leave to accommodate or support caring responsibilities.

5 Community Services

The Department of Health, Housing and Community Services (DH,H and C) offers two programs which have important implications for income support for carers: Domiciliary Nursing Care Benefit (DNCB) and residential respite care.

5.1 Domiciliary Nursing Care Benefit

DNCB is a benefit paid to carers 'to recognise effort people make in caring at home'. It is paid at $42 per fortnight to the Carer and is not income or asset tested.

The problems with this benefit are numerous. It is not well known since it is available through the Department of Health, Housing and Community Services rather than the Department of Social Security. The name creates problems with its emphasis on nursing care. Fifty-two per cent of our sample were not receiving the Benefit. Of these 63 per cent had not heard of the benefit. I should remake the point here that our sample represents service users. One wonders how widely the benefit is known among those not using mainstream services. Carers who did receive the benefit often did not know it by name and generally called it the 'carer's allowance' or 'carer's pension'.

Figure 4 demonstrates there are also some inequities in who receives the benefit. Although, those in our sample caring for a more severely demented patient were more likely to be receiving DNCB, there were some caring for mildly demented relatives who were receiving it and some caring for severely demented who were not. Those caring for moderately demented people had an even chance of receiving the benefit. These inequities reflect a variation in knowledge of the benefit, timing of application, assessment policy and a focus on nursing care and nursing home eligibility.

It should be acknowledged here that a small number of carers knew of the benefit, but had not applied because they did not want it - either because they were financially secure or did not wish to accept a government payment for tasks performed which they saw as very much part of their marital relationship.

The co-residency requirement excludes neighbours who may take on substantial primary care and family members who retain their own home but provide daily care, essentially running two households and unable to work because of caring responsibilities. This does not support a policy of care by the community.

The nursing home eligibility requirements exclude some carers and has the potential to exclude more as more hostel places become available for persons with dementia. In spite of considerable behavioural problems and the need for constant supervision, some persons with dementia are sufficiently mobile to exclude from nursing home admission. This then excludes carers who have extensive caring responsibilities from the benefit.

DNCB is not indexed and has been paid at a rate of $42 per fortnight since 1980. The real value of this benefit has been eroded away. When it was introduced it was 57 per cent of the average nursing home fee paid. A payment of closer to $44 per day would be required to maintain its value at the present time. For many carers $3 per day appears very limited recompense for caring for a nursing home eligible person. The same Commonwealth Department pays a subsidy to nursing homes of between $58 and $96 per day. The yearly cost of subsidies to support a patient in a Nursing Home is between $21,170 and $35,040 whereas carers at home are paid a yearly amount of $1095.

Other Commonwealth departments also pay varying amounts for care.The Department of Veterans Affairs pays an Attendant's Allowance of between $6 and

Figure 4: Severity of Dementia: Receipt of DNCB

n=116 (Living with Patient)
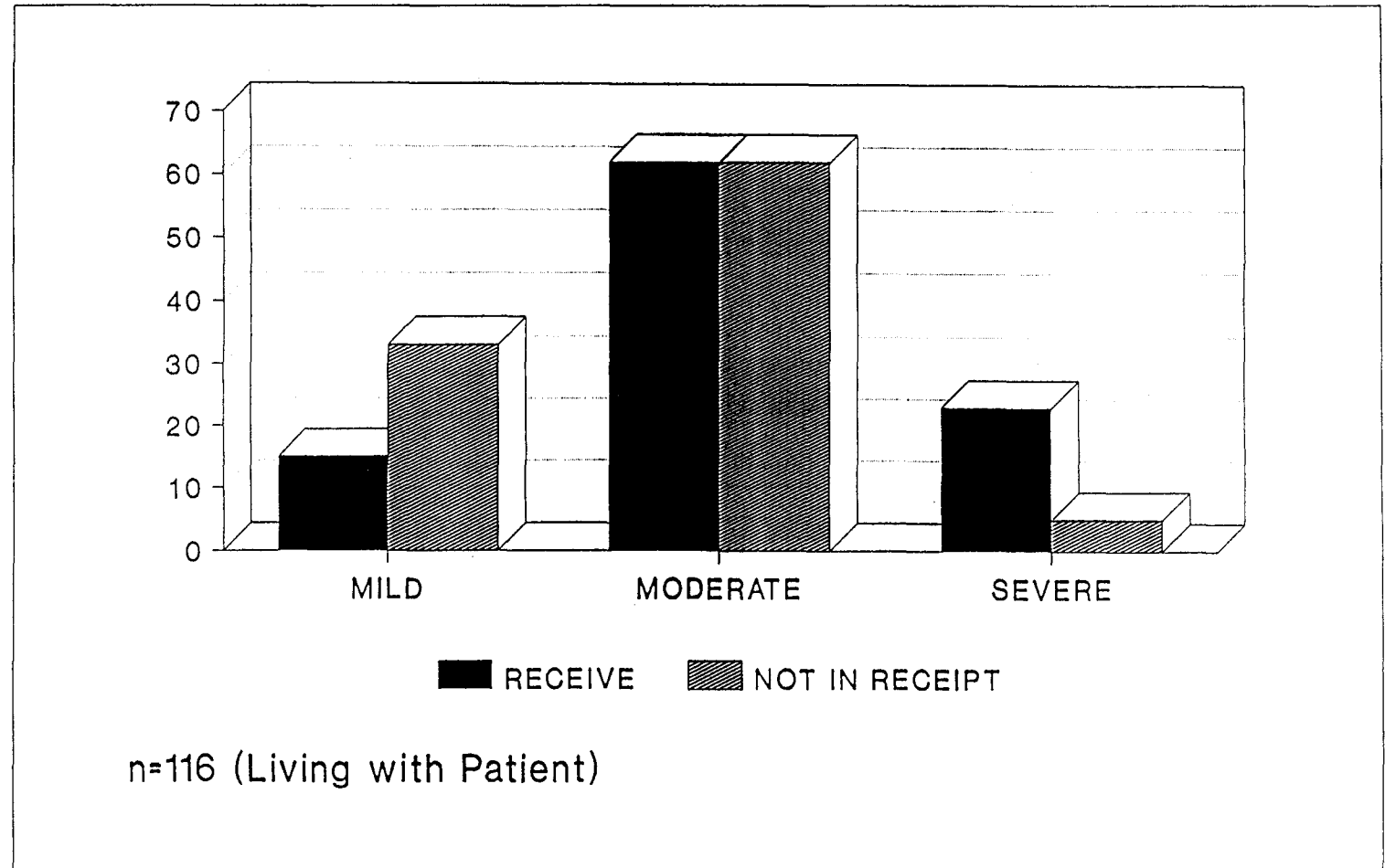
$12 per day for eligible Veterans requiring full time personal care. The Department of Social Security pays Child Disability allowance at the rate of $59.60 per fortnight. There is no consistent policy recognising the economic costs or value of caring.

DNCB ceases when the cared for person is hospitalised or placed in residential respite care. Some carers argue that the costs for them are highest at this time because of daily visiting and/ or the costs of respite care. For most spouse carers or married women, DNCB is the only additional income which acknowledges their caring tasks and the additional costs of caring. While few would argue that an exact economic value can be placed on the labours of love some carers have undertaken, $3 per day seems very limited recompense for the income, employment and lifestyle opportunities forgone.

5.2 Residential Respite Care

The Department of Health, Housing and Community Services offers 63 days per year of subsidised respite care in a nursing home or hostel to provide crisis or holiday relief to carers.

Spouse carers on married rate pensions are able to be paid a single rate pension during respite of more than 2 weeks. However, some carers may lose income as a result of using respite care. Carer Pensioners may lose their pension if their relative is out of their care for more than 28 days. DNCB is also suspended while the patient is in respite. Household income is generally reduced as the patient pays the bulk of his/ her income to the Nursing Home. For some this is a disincentive to the use of respite care.

Although respite care offers a much needed break from the daily stress of caring, some carers complain that holidays are not financially possible with the income reduction experienced, the limited capacity to save on a fixed income, and the additional costs of holidays. Workforce participants are paid a holiday loading.

6 Taxation System

Carers who continue to work and undertake caring of an aged or disabled relative are ineligible for DNCB or Carer's Pensions. Working carers often have significant effects on their work and additional sitting costs as most day respite centres do not operate full business hours. There is the opportunity to support their caring roles through taxation rebates.

An invalid relative or dependant parent(s)/parents-in-law rebate is available. However it is income tested on the dependant relatives's income. The relative must have an income of less than $286 per annum for the full rebate and less than $4000 for a partial rebate. Anyone whose relative is receiving an Australian Government pension is therefore not eligible.

None of the working carers in our sample were able to claim the rebate. Few people can. It appears that only those who care for a relative who fails the residency requirements for Australian Government pensions could claim the rebate.

7 Conclusions

Family carers assume extensive tasks and responsibilities and forgo many opportunities to be the mainstay of a system of community based care for the aged or disabled. In spite of considerable emphasis in social policy on the importance of community based care and the development of community services, there is very limited support for family carers in terms of income support, tax transfers and labour market re-entry programs for when caring responsibilities have ceased.

Carers have to negotiate a complex system involving the Departments of Social Security; Health, Housing and Community Services; and Employment, Education and Training to obtain entitlements and support. It should be remembered that most carers of dementia patients are also enmeshed in a complex system involving Commonwealth, State and non-government agencies and health care workers on behalf of the person they are caring for. The system for carers is little understood, not widely known, and contains some inherent conflicts between departments.

Carers are a small group in terms of visibility as many are hidden, ineligible for benefits or unaware of what is available. The lack of cohesive policy for carers is perhaps part of two broader problems. Firstly, the limited economic recompense to carers reflects a more general lack of recognition of the economic value of women's caring roles. Secondly, the family, the welfare system, and the labour market rarely intersect to acknowledge and support caring work (see Baldock and Cass, 1987: xviii).

8 Recommendations

The most important issue is the recognition of informal family caring as a valid economic activity. Although few would argue that economic incentives will encourage family members to take on caring roles, there is a need to compensate carers for the economic consequences of caring.

Two sorts of payment are required:

• Basic income support payment for carers who give up workforce participation to care - a Carer's Pension; and

• Payment to help defray some of the extra costs of caring and lifestyle opportunities forgone.

Specific recommendations are made here in 3 areas.

8.1 Carer's Pension

- Revise full-time time care provision to encourage continued but limited workforce participation. Day respite, labour market and income security provisions need to intersect to support carers in retaining skills and networks without requiring that all carers continue some workforce participation.

- Recognise the disadvantages suffered by younger carers in terms of workforce participation by providing access to planned re-entry programs modelled on the JET programs for sole parents, retention of health care cards for a period after pension ceases, and the development of a plan and a support program for Carer Pensioners, when caring ceases.

- Continue carer's pensions for a short period after placement to facilitate adjustment to changed circumstances.

- Co-ordinate policy with the Department of Health, Housing,and Community Services to made respite conditions consistent. Integrate income support programs for carers provided by DSS more closely with programs and services provided by DH,H and C and DEET.

- Widen promotion of Carer's Pension within health/ medical system as one of the major points of contact when caring tasks are being assumed.

8.2 Domiciliary Nursing Care Benefit

- Rename DNCB as 'Carer's Allowance' to identify it more clearly with caring rather than nursing tasks. Move to DSS as a more identifiable agency providing income support payments associated with caring e.g. Child Disability Allowance and Family Allowances are both paid through DSS. A Carer's allowance should have two components- a payment to assist with additional costs of caring - e.g. payments which acknowledge specific costs such as an incontinence allowance - and some payment which compensates for the opportunities forgone. This second aspect could be important in providing economic recognition for married women who give up opportunities to rejoin the workforce in order to care.

- Remove the emphasis on nursing care to broaden the definition of what caring involves. Relate eligibility to a scale of daily living activities and caring tasks performed, or at least broaden it to include hostel eligible persons and persons requiring constant supervision.

- Index payments so that they provide a real contribution to the costs of caring. Return the benefit to the level it initially carried - 57 per cent of average nursing home benefit.

- Change co-residence requirement to have a broader definition of 'community care'. The co-residency requirement limits DNCB to family carers rather than recognising the potential for neighbours and friends to be involved in community support of disabled people.

8.3 Taxation

- Provide a more generous system of rebate for working carers to help defray some of the costs of care. Widen eligibility for invalid relative and dependant parent rebate to include dependants who are receiving basic levels of Australian Government pensions.

Finally, in the area of income support there is a need to acknowledge and support more directly the contributions of family carers within the family, the labour market, the tax system and the welfare system. One wonders if carers were to be paid the replacement value of their care: e.g the fee required to hire paid carers or the equivalent nursing home fee, whether the widespread commitment to community based care would continue.

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