



CHILD POVERTY IN RURAL REGIONS OF AUSTRALIA IN 1990

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ABSTRACT: In this study the incidence and depth of child poverty in rural and regional Australia is estimated and compared to those in similar circumstances in the capital cities, using data from the 1990 Survey of Income and Housing Costs and Amenities. The levels of poverty amongst income units of different household size and employment status are also compared across the two different regions. Many widely-held beliefs regarding the extent and depth of child poverty amongst Australian income units, such as those children in poverty coming from large households and where the head is unemployed, are confirmed. However, the most recently held view that the proportion of income units and children in poverty in areas other than capital cities may be much greater than those in capital cities is not supported, especially if the differences in the costs of living and housing in each region are accounted for.

1. INTRODUCTION

A key feature of the Hawke government's 1987 election policy platform was the pledge that "... by 1990 no Australian child will be living in poverty". For those who regard poverty as embedded in the deep-rooted structural inequalities that exist in any society, the pledge to eradicate child poverty in such a short time frame was not believable. Yet, to many others, the pledge was a signal for the direction in which the government wanted to move. In the 1980s many policy makers in Australia were concerned with child poverty, as unemployment was rising and the incidence of sole parenthood was increasing. At the same time policy makers were also concerned with the impact of a deteriorating farm economy on rural and regional households. In the context of the election pledge and the concerns regarding rural households, some key questions that could be addressed are: by 1990 what proportion of children lived in poverty, to what extent were they immersed in poverty and in which communities did they live?

The aim in this study is to measure and compare the extent and depth of child poverty between the capital cities and provincial regions of Australia. Child poverty is an important indicator of the well being of a community.

Consequently, by assessing this question it should be possible to assess whether, as is believed, the welfare situation in rural regions is far worse than in the capital cities. In addition, children in poverty in each region will be classified according to employment status of the head of the income unit and by the size of the income unit. By assessing this question it should be possible to assess if the factors usually associated with households being in poverty (i.e. their large size, or whether the head is unemployed) are the same in the two regions.

In undertaking this task previous studies of poverty in Australia are initially discussed (in Section 2). While a number of assessments of child poverty in Australia have been made, none were found to have addressed the rural-capital cities aspects of the problem. Then, issues regarding the measurement of poverty in general and in different regions are discussed (in Section 3). The important issue of setting benchmarks for those who are, and those who are not, in poverty, (i.e. the equivalence scales) are then discussed, along with the data used (in Section 4). It is argued that differences in costs of living between the capital cities and other regions should be accounted for in assessments of the extent and depth of poverty. The results are presented (in Section 5) and some policy implications are drawn (in Section 6).

2. ARE CHILD POVERTY AND RURAL POVERTY A PROBLEM?

Child poverty is a volatile issue. It raises emotions such as pity, anger, dismay and sympathy, in a way that poverty amongst adults can not. Children are seen as 'victims' who can not be blamed in any sense for the state in which they find themselves. Further, the damage and the waste of potential talent arising from child poverty is also a concern. Hence, the appeal by the Hawke government to eradicate or alleviate child poverty had the true ring of social justice, of fair play and of giving those who deserve it, a 'fair go'.

Is child poverty a growing problem in Australia? The incidence of poverty among dependent children would appear to have increased substantially over the last three decades. In Australia Henderson, Harcourt and Harper (1970) estimated that 6.2 per cent of children were in poverty in 1966. Using similar procedures to those adopted by Henderson *et al* the Commission of Inquiry into Poverty (1975) estimated the incidence of child poverty in 1972-73 to be 7.9 per cent. Since that time, a number of studies have produced estimates of the incidence of poverty on the basis of the approach to poverty measurement developed and used by the Commission of Inquiry into Poverty, using the Henderson Poverty Line. On the basis of these estimates and subsequent studies, it can be concluded that child poverty in Australia would appear to have increased dramatically over the last two decades (see Table 1). The 1966 poverty estimates of those in poverty were based on weekly incomes. In contrast, more recent studies estimated poverty on the basis of annual incomes. It has been estimated that the number of children living in poverty, before adjusting for housing costs, has:

Table 1. Estimates of the Number of Children in Poverty in Australia, 1966-1990

Year	Study Undertaken by	Poverty Before Housing Costs		Poverty After Housing Costs	
		Numbers ('000)	Per cent (%)	Numbers ('000)	Per cent (%)
1966	Henderson, Harcourt and Harper (1970)	233.3 ^a	6.2	na	na
1972 - 1973	Commission of Inquiry into Poverty (1975)	254.4	7.9	231.8	7.2
1978 - 1979	Social Welfare Policy Secretariat (1981)	395.1	11.4	na	na
1981 - 1982	Gallagher and Foster (1986)	591.8	17.0	541.5	15.6
1982	Harding and Szukalska (1999)	810.0	19.5	na	19
1985 - 1986	King (1987)	810.8	20.7	684.8	17.5
1987	Saunders and Whiteford (1987)	540.0	na	440.0	na
1990	King (1991)	637.9	16.5	589.8	15.3
1995 - 1996	Harding and Szukalska (1999)	1163.0	24.6	na	26.0

^a Based on applying the Melbourne poverty rate to the total number of dependent children for whom child endowment was paid as at 30 June 1966.

na not available.

- increased from 233 000 in 1966 to 250 000 by 1972-73;
- risen to almost 600 000 by 1981-82;
- expanded to over 800 000 by 1985-86; and
- then fell to nearly 638 000 by 1990.

In other words, it would appear that the incidence of child poverty has risen from six per cent in 1966 to 17 per cent in 1990.

However, Harding and Szukalska (1999) have argued that the rise in the incidence of poverty is due to the way the Henderson Poverty Line is updated. They found that using the Henderson Poverty Line and the official updates associated with it, child poverty had increased from 19.5 per cent to 24.2 per cent between 1982 and 1995-96, a rise of almost 25 per cent (see Table 1). Yet, they questioned the credibility of this result and, using a different method, suggested that child poverty had actually fallen by 30 per cent over the same period.

Any fall in poverty levels in the late 1980s and the 1990s may well be due to

the initiatives of the Australian Government. King (1991) reviewed the major measures that have been introduced. They include:

- increases in the family allowance supplement in 1987, supplemented by further rises in the 1990s;
- assistance to all private housing renters who were recipients of sickness benefits, the unemployed and the working poor and who had children; and
- increasing pensions and government allowances significantly between 1982 and 1996.

Davidson and Lees (1992) questioned whether poverty in general was any different to poverty in rural regions. They argued that the definition of poverty should not differ on a geographic basis and could still be described as being in a state of relative want. However, they believed that rural and remote regions might have a number of peculiarities, which impinge upon peoples' standard of living, peculiarities that were not in evidence in more urbanised areas. These peculiarities related first to the location disadvantages associated with long distances and low population densities and second to the greater sensitivities rural communities have to fluctuations that occur in the international prices of agricultural and mining commodities and natural disasters.

From the political climate in Australia, it could be concluded that since the early 1980s the rural and provincial regions of Australia have been in decline. It should be noted that this decline is not only related to the state of agricultural industries, but also to a rationalisation of regional industries and services. This rationalisation has seen industries move to the capital cities, and in some cases offshore, thus causing job losses, hardship and increasing rates of poverty in rural and regional areas. Adding to these concerns is the decline in the number of people employed in the agricultural sector, a leading sector outside the capital cities.

In the 1990s Federal governments of both persuasions expressed the desire to achieve economic and social equity between provincial areas and the capital cities, and to eradicate poverty. The implication of the governments' position which, it must be noted is shared with that of many commentators, is that poverty is much higher in the rural and remote regions than it is in the capital cities of Australia. Despite these claims, little empirical evidence can be found to quantify the impact and extent of the rural decline on affected households. Further, no studies can be found on the extent and depth of child poverty in non-capital city regions of Australia.

3. HOW ARE POVERTY LEVELS MEASURED?

Poverty research plays an important role in identifying those who do not have the resources required to meet the basic needs, such as adequate food, clothing, housing and health, along with those who need additional assistance. Once the poor are identified, a profile of the poor can be constructed (i.e. one which identifies whether those who are poor come from large families, where the head is unemployed, etc.). Such a profile is crucial in understanding whether poverty eradication and alleviation programs and policies are correctly targeted

or not. The construction of a profile of who is poor can also lead to the identification of the causes of poverty in a particular empirical context. In this Section the measures used to assess the extent and depth of child poverty are presented. They are the head-count ratio and the poverty gap index.

While the effects of poverty cannot be reduced unless poverty is first measured and its extent gauged, much of the work on measurement depends on the related issue of how poverty is defined. There is no definite answer to the question 'What is poverty?' After examining this question Townsend (1979, p.31) concluded that '... poverty can be defined objectively and applied consistently only in terms of the concept of relative deprivation ...'. The general consensus is that the term 'poverty' attains pragmatic and relevant dimensions only within a relative framework. Hence, it is not possible to develop an approach to poverty and its measurement, which is linked to an absolute standard. While some analysts are uneasy with relative concepts of poverty, on the grounds that they are difficult to comprehend and tend to be somewhat arbitrary and open to manipulation, there is no real practical alternative to using relative concepts. In effect, the challenge is to develop a relative measure of poverty which is relevant to a particular society to which it is applied and which is of greatest use to policy analysts.

The head-count measure of poverty gauges the number (or percentage) of the population that fall below the poverty line. This type of measure is useful in testing the effectiveness, over time, of policies intended to lessen the relative number of poor people. In addition, it can be used to assess poverty amongst different groups and/or those living in different regions. If the percentage of the population below the poverty line decreases (increases) then poverty is said to decline (rise).

A major deficiency of the head-count ratio is that it does not indicate the extent of immersion of the poor in poverty. In addition, the income share of the poor is not revealed. Thus, it is impossible to distinguish between a poor person who earns one dollar less than the poverty line and a poor person who earns significantly less than the poverty line. The poverty gap index is based on the aggregate shortfall of income of all the poor. Thus, the poverty gap can be used to indicate the degree of immersion, or the depth, of poverty. The poverty gap index does not reflect the severity of the poverty problem in terms of the number of people who suffer. Further, like the head-count measure, it is not indicative of the distribution of income among the poor. Finally, both the head-count measure ratio and the poverty gap index are insensitive to transfers of income among the poor.

One of the most commonly used measures of poverty is the head-count ratio, in which the number of poor individuals (or families) as a percentage of the population is expressed. The head-count poverty measure has several features to recommend it. It is simple to derive, easy to understand and open to clear and obvious interpretation. The poverty gap index will be used in this study because the absolute difference between the actual incomes of the poor and their respective poverty lines are observed. Therefore, an indication of the minimum financial resources necessary to lift all the poor to the poverty line is provided.

4. DATA

To assess the extent and depth of poverty information is required on the incomes of the people under investigation and on the benchmark that segregates those who are poor from those who are not.

4.1 Poverty Lines and Equivalence Scales

The Henderson Poverty Line is the benchmark used to assess whether income units are in poverty or not. The income of units that fall above the line are not considered to be in poverty, while those that fall below it are said to be in poverty. The Henderson Poverty Line does not exist as a single figure, but as a set of lines with separate levels for different types of income units. That is, given the Henderson Poverty Line for the standard income unit or household, it is necessary to find some means of defining poverty line for other sizes, employment status and locations of income units. Taking a base income unit type to include two adults and two children, with the head being employed and living in a capital city, the income requirements of other family types are determined relative to that base. The measures necessary to compare the income requirements for different income unit types are called equivalence scales (Saunders, 1992). Equivalent scales for different sized income units and employment status are specified in Table 2.

In assessing the levels of poverty in either the capital cities or in rural and regional Australia, it must be asked should the same benchmark be applied in each region, or should separate ones for each region be employed? The answer to this question lies in the nature and extent of differences in the lifestyles and consumption patterns between regions. If poverty is viewed as a relative concept, the valuation of goods and services in rural and remote regions may differ from those of capital city dwellers. For example, housing costs in rural and regional areas are less expensive than those in the cities, yet the cost of providing goods and services is higher in these areas, as the cost of transport must be added to the price of the commodities.

To account for these differences, Davidson and Lees (1992) estimated adjustments to the Henderson Poverty Line, which could be used to make a comparison of households in poverty in the capital cities and other regions of Australia. They estimated that an adjustment factor of 0.801 is appropriate for rural and regional areas relative to the capital cities. In other words, they found the cost of living in rural areas to be approximately 80 per cent of that in the capital cities. These scales and the effects they have on the Henderson Poverty Line are detailed in Table 2. Adjusting poverty lines by 20 per cent is bound to affect the results. As a consequence the results of any analysis undertaken will be presented in terms of an 'adjusted' and an 'unadjusted' poverty line for people from rural areas.

Table 2. Summary of Adjustments to Income Levels in Relation to the Henderson Poverty Line

Item	Equivalence Scale	Henderson Poverty Line (\$/annum)	Adjusted Equivalence Scale Rural	Adjusted Henderson Poverty Line Non-Capital City Regions (\$/annum)
Head Employed				
Couple	0.7122	11662.13	0.5705	9341.82
Couple +1 dependent	0.8561	14018.47	0.6857	1128.20
Couple +2 dependent	1.0000	16374.80	0.8010	13116.21
Couple +3 dependent	1.1439	18731.13	0.9163	15004.23
Couple +4 dependent	1.2878	21087.47	1.0315	16890.61
Single	0.5324	8717.94	0.4265	6983.85
Single +1 dependent	0.6835	11192.18	0.5475	8965.20
Single +2 dependent	0.8273	13546.87	0.6627	10851.58
Single +3 dependent	0.9712	15903.21	0.7779	12737.96
Head Unemployed				
Couple	0.6115	10013.19	0.4898	8020.38
Couple +1 dependent	0.7554	12369.52	0.6051	9908.39
Couple +2 dependent	0.8993	14725.86	0.7203	11794.77
Couple +3 dependent	1.0432	17082.19	0.8356	13682.78
Couple +4 dependent	1.1871	19438.53	0.9509	15570.80
Single	0.4317	7069.00	0.3458	5662.41
Single +1 dependent	0.5827	9541.60	0.4667	7642.12
Single +2 dependent	0.7266	11897.93	0.5820	9530.13
Single +3 dependent	0.8705	14254.26	0.6973	11418.15

Source: Calculations based on different equivalence scales derived on the basis of requirements associated with the demographic structure and size of income units (Davidson and Lees, 1992) and Henderson Poverty Line for late 1989 (King, 1991).

4.2 Incomes

In this study the basic unit of analysis is not the family or the household, but rather the 'income unit'. An income unit can be defined as one or a group of persons who are jointly affected by the earning of income and decisions about expenditure (King, 1991). In this study the income units are classified according to their size, location and the employment status of the head of the income unit. To facilitate presentation of the results, sole parent income units with three or more children are grouped into one category, as are couples with four or more

children.

Data on incomes were derived from the 1990 Income and Housing Costs and Amenities Survey (ABS, 1992, 1993). In addition to surveying current gross weekly income from all sources, the additional clarifying data on location, employment status, size and the amount of tax paid were also derived. To derive the net income of individual units the income tax paid by each unit was deducted from the gross income of each unit. Income units in which the recipient reported no income were excluded from the analysis.

Data were collected from households in each state capital city and from households located elsewhere in each state. As the data could only be delineated into capital city and non-capital city components, the correct comparison in this study can only be between households in the capital cities and those not in capital cities. As a result capital cities refer to the six state capital cities, (including Darwin and Canberra) and their metropolitan environs. The non-capital city data includes all areas other than the metropolitan data encompassed within the capital cities. Thus, the non-capital city area roughly equates to the definition of rural and regional areas. It should be noted however, that the non-capital city data could include some rather large urban centres, such as Newcastle, Wollongong and Geelong. Also data were collected from households within the Australian Capital Territory (ACT) and from households in Darwin, the capital of the Northern Territory, and not from the rural regions of these provinces.

Details of the number of households and income units surveyed are presented in Table 3. A summary of different types of income units and number of children are presented in Table 4.

5. RESULTS

In this section the extent and depth of child poverty in Australia is explored. The head-count ratio is used to measure the extent of poverty, while the poverty gap index is used to measure the depth of poverty. The head-count ratio can be used to assess what proportion of a sub-group families or individuals that are in poverty. The poverty gap will be expressed in total money terms and can be used to indicate the minimum financial cost of lifting the income of all the poor families to the poverty line. It can also be used to reveal how far below the poverty line individuals and groups fall. Thus, the degree of impoverishment of the poor and the financial resources required to alleviate poverty are indicated, if the poverty gap index is calculated. The results presented in this section, focus on capital cities and non-capital city differentials, as well as the differences that exist among income units of different size and employment characteristics. In addition, reference is made to the number of income units that fall below an 'adjusted' or an 'unadjusted' Henderson poverty Line. The adjusted poverty line accounts for the lower costs of living in rural and regional Australia, while the unadjusted line assumes the costs of living in different regions are the same.

Table 3. Number of Households and Income Units Surveyed in the 1990 Survey of Income and Housing Cost and Amenities

State	Capital City		Rest of State		Total	
	Households	Income Units	Households	Income Units	Households	Income Units
NSW	2205	2940	1362	1702	3567	4642
Victoria	2024	2695	850	1047	2874	3742
Qld	1282	1730	1523	1909	2805	3639
S.A	1377	1742	480	579	1857	2321
WA	1587	2105	486	592	2073	2697
Tasmania	400	516	590	739	990	1255
N.T	138	185	0	0	138	185
A.C.T	365	471	0	0	365	471
Australia	9387	12384	5291	6568	14669	18952

Source: ABS (1993).

Table 4. Distribution of Income Units and Total Children in Different Sized Units (No.)

Type of Income Units	Capital City		Non-Capital City		Total Income Units	Total Children
	Employed	Unemployed	Employed	Unemployed		
Couple	1891	877	1135	645	4548	0
Couple + 1 child	946	49	494	32	1521	1521
Couple + 2 children	1250	43	666	29	1988	3976
Couple + 3 children	535	26	315	23	899	2697
Couple + 4 children	127	14	102	5	248	1021
Single	3507	1659	1474	936	7576	0
Single + 1 child	198	115	102	52	467	467
Single + 2 children	122	57	67	34	280	560
Single + 3 or more children	40	27	63	15	145	461
Total Income Units with Children	3218	331	1809	190	5548	10703
All Units	8616	2867	4418	1771	17672	

Source: ABS (1993).

5.1 Poverty Amongst Family Units in Different Regions

In Table 5 the proportion of income units in total and those with children who are in poverty across regions are presented. In estimating the incidence of child poverty it is assumed that if an income unit with children is in poverty, then the children are also considered to be in poverty. The rationale for this belief is that the welfare of a child is inextricably related with the welfare of the carer. The incidence of poverty in non-capital city regions are also computed with, and without, the adjustments to the Henderson Poverty Line which account for the lower costs of living found outside the capital cities.

It was found that in 1990 12.8 per cent of Australian children live in poverty, if adjustments are made to the Henderson Poverty Line and 15.6 per cent if the adjustments are not made (see Table 5). In the capital cities and non-capital city regions the proportion of children below the adjusted poverty line are 14.3 and 10.4 per cent, respectively. It was also found that 13.5 per cent of all the income units that have children and that reside in capital cities are below the adjusted poverty line. This can be compared to only 9.7 per cent of the income units with children residing in non-capital cities who were found to be in a state of poverty, if adjustments are made to the Henderson Poverty Line. If adjustments are not made to the Henderson Poverty Line, then the proportion of income units with children who are considered to be in poverty in both the non-capital regions and nationally rise to 17.1 and 14.8 per cent, respectively. Of all the income units, regardless of whether they have children or not, it was found that 14.4 and 10.7 per cent were below the adjusted Henderson Poverty Line in the capital cities and non-capital city regions, respectively. Overall, it was found that 13.1 per

Table 5. The Percentage of Children and Income Units Living Below the Poverty Line in Different Regions of Australia

Regions	All Income Units in Poverty	Income Units with Children in Poverty	Children in Poverty
Capital Cities	14.4	13.5 ^a	14.3 ^a
Non-Capital Cities			
Adjusted HPL	10.7 ^b	9.7 ^{ab}	10.4 ^{ab}
Non-adjusted HPL	16.9 ^b	17.1 ^b	17.8 ^b
Australia			
Adjusted HPL	13.1	12.1 ^a	12.8 ^a
Non-adjusted HPL	15.3	14.8 ^a	15.6 ^a

^a Significantly more than 6.0 per cent children are living in poverty (significant at 1% level based on one sided test).

^b There is significant difference in incidence of poverty between non-capital city and capital regions (at 5% level).

cent of all income units were below the adjusted poverty line nationally. If the unadjusted poverty line it used, the national figure rises to 15.3 per cent, while in the non-capital city regions it rises to 16.9 per cent.

There are three different features of these results that need to be highlighted. First, in general it would appear that a greater proportion of all income units live in poverty, compared to just those with children. Thus, the extent of poverty amongst income units that do not have children would be proportionally greater than those who do. Second, it would appear that there is a greater proportion of children in poverty, than income units with children in poverty. Thus, it can tentatively be concluded that large families are in poverty compared with smaller units. Third, and most importantly, there is a difference between the results obtained from using the adjusted and non-adjusted Henderson Poverty Lines. If an adjusted poverty line is used the percentage of all income units, income units with children and children in poverty in non-capital city regions falls below both the national average for the non-adjusted line and for that of the capital cities. Alternatively, if estimates are calculated from the use of a non-adjusted poverty line, the opposite is true. Thus, any conclusions regarding the extent of poverty being greater in non-capital city regions than in the capital cities is dependent on the belief that the costs of living in both regions are not different.

5.2 Child Poverty by Employment Status of the Head of the Income Unit

The extent of poverty in terms of proportion of income units and children in poverty and those belonging to income units where the head is employed or unemployed is presented in Table 6. It was found that in Australia 8.7 per cent and 9.8 per cent income units where the head is employed are living in poverty with and without, respectively, adjustments to the Henderson Poverty Line. On the other hand, 25.6 per cent and 30.8 per cent income units where the head is unemployed were found to be in poverty, with and without adjustments to Henderson Poverty Line. In rural regions 8.2 per cent and 11.3 per cent income units are living below the Henderson Poverty Line from income units where the head is employed, with and without, respectively, adjustments to Henderson Poverty Line. From the income units in which the head is unemployed in rural regions it was found that 17.1 per cent and 30.7 per cent children are living below the poverty line with and without, respectively, adjustments to the Henderson Poverty Line.

In Australia 6.9 per cent of units with children in income units in which the head is employed were found to live in poverty. This can be contrasted to the 62.6 per cent of income units where the head is unemployed with children who were found to be in poverty. In the capital city regions it was found that 7.4 per cent of income units in which the head is employed with children are in poverty, while 72.8 per cent were in poverty among income units in which the head is unemployed. In the non-capital city regions it was found that five per cent of income units among employed units where the head is employed were in poverty, while 44.7 per cent of income units headed by an unemployed person were in poverty, if an adjusted standard is used.

Table 6. The Percentage of Children and Income Units Living Below the Poverty Line in Different Regions of Australia by Labour Force Status

Region	All Income Units		Income Units With Children		Children in Poverty	
	Empl.	Unempl.	Empl.	Unempl.	Empl.	Unempl.
Capital Cities	9.0	30.8 ^a	7.4	72.8 ^a	8.2	76.9
Non-Capital Cities						
– Adjusted	8.2	17.1 ^{ab}	5.0	44.5 ^{ab}	6.5 ^b	51.3 ^b
– Unadjusted	11.3 ^b	30.7 ^{ab}	11.6 ^b	69.0 ^{ab}	12.2 ^b	75.4
Australia						
– Adjusted	8.7	25.6 ^a	6.9	62.6 ^a	7.6	67.4
– Unadjusted	9.8 ^a	30.6 ^a	8.9	71.4 ^a	9.7	76.3

^a Significant difference in the extent of poverty between the income units headed by individuals who are employed and those who are not, at the 5% level.

^b Significant difference in the extent of poverty between those who live in the capital cities and those who reside in non-capital city regions, at the 5% level.

Estimates of the extent of poverty show that in Australia 7.6 per cent of children from income units where the head is employed and 67.4 per cent of children from income units where the head is unemployed are living under an adjusted poverty line. In the capital cities 8.2 per cent of children are estimated to be living in poverty from income units where the head is employed and 76.9 per cent of children are living in poverty from income units where the head is unemployed. In non-capital cities regions, 6.5 per cent of children from income units where the head is employed and 51.3 per cent of children from income units where the head is unemployed are living under an adjusted poverty line (see Table 6).

Consistent with intuition, from the results presented in this section it can be concluded that the view that children who reside in income units where the head is unemployed are more likely to be in poverty than those who are employed. Thus, there is a concern for the possible social problems that are associated with high levels of unemployment. Further, if adjustments are made to the poverty line, the rate of poverty in non-capital city regions is lower than in the capital cities.

However, if an unadjusted line is used, the rates do not differ greatly between the two regions and if anything are lower amongst the unemployed units, while being higher amongst the employed units.

Table 7. The Percentage of Children and Income Units Living Below the Poverty Line in Different Regions of Australia by Broad Unit Size

Region	Income Units With Children		Children in Poverty		
	Broad Family Size	Sole Parents	Couples	Sole Parents	Couples
Capital Cities		50.6 ^a	6.5	55.6 ^a	7.8
Non-Capital Cities					
– Adjusted		29.4 ^{ab}	5.7 ^b	31.5 ^{ab}	6.7
– Unadjusted		52.6 ^a	9.8 ^b	55.0 ^a	11.2 ^b
Australia					
– Adjusted		42.7 ^a	6.2	45.9 ^a	7.5
– Unadjusted		51.4 ^a	7.8	55.4 ^a	9.1

^a There is a significant difference in the extent of poverty between sole parents and couples with dependant family types, at the 5% level.

^b There is a significant difference in the extent of poverty between capital cities and other regions, at the 5% level.

Table 8. The Percentage of Children in Poverty Across Regions Between Different Family Size

Income Unit Type	Capital City	Non-Capital City		Australia	
	City	Adjusted	Unadjusted	Adjusted	Unadjusted
Couples with					
One child	5.2	3.4 ^b	7.6 ^b	4.6	6.1
Two children	4.5 ^a	4.9 ^a	8.6 ^{ab}	4.6	5.9 ^a
Three children	8.6 ^a	10.4 ^{ab}	14.8 ^{ab}	9.2 ^a	10.9 ^a
Four or more children	26.5 ^a	7.7 ^{ab}	26.2 ^a	18.4 ^a	21.5 ^a
All Couples with Children	8.0	6.7 ^b	11.2 ^b	7.5	9.1
Sole Parents with					
One child	46.0	27.3 ^b	46.1	39.8	46.0
Two children	51.4 ^a	30.7 ^{ab}	58.4 ^{ab}	43.9 ^a	53.9 ^a
Three or more children	76.5 ^a	34.8 ^{ab}	57.8 ^{ab}	54.5 ^a	66.6 ^a
All Sole Parents with Children	55.6	31.5 ^b	55.0	45.9	55.4

^a Significant difference in incidence of poverty between families with one child and those with more than one child at 5% level.

^b There is a significant difference in the extent of poverty between capital cities and non-capital city regions at the 5% level.

5.3 Family Size and Poverty

In this section the extent of poverty and its possible correlation with the size of the income unit is examined. In Tables 7 and 8 the percentage of income units and children by the size of the income units are presented.

Approximately half of the income units that are headed by a sole parent and the children that live in them live in poverty if the appropriate adjustments are not made to the Henderson Poverty Line. It was found that in the capital cities, 50.6 per cent of income units with only one parent and 55.6 per cent of the children who reside with single parents, were in poverty. Conversely, in the capital cities it was found that only 6.5 per cent of income units headed by a couple and 7.8 per cent of children in them, were in poverty. In the non-capital city regions the story is much the same as in the capital cities, if an unadjusted Henderson Poverty Line is used to assess the extent of poverty. However, if adjustments are made to the Henderson Poverty Line, the extent of poverty amongst income units headed by a sole parent falls to 29.4 per cent, and amongst income units headed by a couple, to 5.7 per cent. In sole parent and couple-headed income units, there are 31.5 per cent and 6.7 per cent, respectively of children in poverty in the non-capital city regions.

A breakdown of the extent of poverty amongst families of different sizes is presented in Table 8. In general, the greater the number of children, the greater the extent of poverty. This result coincides with other studies in this field. There are significant differences to the numbers in poverty if the poverty line is adjusted for the regional costs of living or not. Interestingly, in the cases large households, the proportion of income units below the poverty line in the capital cities is greater than in the non-capital cities, regardless of whether an adjustment is made to the Henderson Poverty Line or not.

5.4 The Incidence of Poverty

The purpose in this section is to estimate the amount of money that would be required to raise income units with children out of poverty. In other words, the aim is to investigate the depth or incidence of poverty amongst different groups in society. The results are reported in Table 9. The best way to observe these results is to segregate the income units into those that are headed by a couple or by a sole parent and into those that the head is employed or not. Then comparisons can be made across regions.

Observing income units which are headed by a couple, at least one of whom is employed, the depth of poverty yields interesting results. In the capital cities an income unit with only three children finds itself on average only \$3325 per annum below the poverty line. However, income units with one, two or four or more children find themselves between \$3698 and \$5365 per annum below the poverty line. A similar result exists in the case of income units that reside outside the capital cities, with those with three children being further below the poverty line than other family sizes.

Table 9. The Depth of Poverty Among Income Units With Children
(\$ per Year per Income Unit)

Income Unit Type	Capital City	Non-Capital Cities	
		Adjusted	Unadjusted
Couples			
– Employed			
• One child	3698	3897	3605
• Two children	4673	4362	4300
• Three children	3325	5489	6091
• Four or more children	5368	4118	5380
– Unemployed			
• One child	5723	5971	4389
• Two children	6070	7187	7588
• Three children	7310	5895	4167
• Four or more children	8407	5616	6057
Sole			
– Employed			
• One child	2748	2021	2891
• Two children	2723	2404	3034
• Three or more children	3368	2716	3832
Unemployed			
• One child	2746	2073	2839
• Two children	3769	2987	3700
• Three or more children	4377	4079	5297

Income units that are characterised by the head being unemployed and where there is not a sole parent experience deeper levels of poverty than any other type of income unit. These units who reside in the capital cities have incomes that are averagely \$5723, \$6070, \$7310 and \$8407 per annum below the Henderson Poverty Line depending on whether they have one, two, three or four or more children, respectively. In the non-capital city areas these income units with one, two, three or four or more children are \$5971, \$7187, \$5895 and \$5616 per annum, respectively below the adjusted Henderson Poverty Line and \$4389, \$7588, \$4167 and \$6057 per annum, respectively below an unadjusted Henderson Poverty Line.

The depth of poverty amongst sole parent income units in which the head is employed would appear to be less desperate than in the other categories. An income unit in this situation residing in a capital city was found to be on average \$2748, \$2723 and \$3368 per annum below the Henderson Poverty Line if they

have one, two or three or more children, respectively. Using the adjusted Henderson Poverty Line, it was found that sole income units with one, two or three or more children were on average \$2021, \$2404 and \$2716 per annum, respectively, in deficit, or \$2891, \$3034 and \$3832 per annum, respectively below the unadjusted line.

Income units, where the sole parent is unemployed and resides in capital cities with one, two or three or more children, are \$2746, \$3769 and \$4377 per annum, respectively below the Henderson Poverty Line. For such an income unit that resides in non-capital city regions with one, two or three children are \$2073, \$2987 and \$4079 per annum, respectively, below the adjusted Henderson Poverty Line and \$2839, \$3700 and \$5297 per annum, respectively, below the unadjusted poverty line.

In general, it is found that the income shortfall is greater in unemployed units in both the regions. Further, the extent of poverty is higher in capital city areas for most of the income unit types. The depth of poverty (poverty gap) is also higher in capital city areas for most of the income unit types. However, this is only the case if the adjustments are not made to the Henderson Poverty Line. In the alternative situation, the extent and depth of poverty increases in rural areas. The category with the highest level of poverty, the unemployed, shows remarkably little variation from one region to another. Thus, it can be concluded that the majority of those in poverty in this category are living well below the poverty line.

From the results it can also be noted that for some income units without adjustments to the Henderson Poverty Line, the poverty gap decreases because more income units with more income fall below the poverty line. The poverty gap is higher in capital city regions if poverty is estimated for non-capital city regions using the adjusted Henderson Poverty Line. But when a non-adjusted poverty line is used the gap is higher in non-capital city areas compared to capital city areas for most of the income unit categories. The gap is higher for the unemployed income units both for sole parents and couples with dependents.

From the results presented above it can be concluded that a significant difference in the extent and depth of poverty in capital cities and non-capital city areas would appear *not* to exist if adjustments are made to Henderson Poverty Line. In addition, the view that the proportion of income units and children in poverty in non-capital city regions may be greater than they are in the capital cities is *not* strongly supported by the results, whether the poverty line is adjusted or not. However, there are some cases where some weak assertions can be made. There would appear to be few greater differences occurring between single and couple units, units where the head is employed or not, than with a difference in location. The incidence of poverty in sole parent families with more children is higher than those headed by a couple and including dependent children. It was also found that the incidence of poverty is higher in unemployed units, when compared to employed income units. It would appear that the percentage of children below the poverty line has increased from that indicated by the results found in 1976 by the Commission of Inquiry into Poverty.

6. CONCLUSIONS AND POLICY IMPLICATIONS

The aim in this study was to assess whether the extent and depth of child poverty in the capital cities of Australia was different to that which existed in other regions. In addition, an evaluation of the characteristics of employment status and size of income units in poverty was undertaken to ascertain whether any differences occurred spatially. An assessment of the extent of child poverty is not only important because it is an indicator of the well being of a society, but also because it was placed on the political agenda. Given the desire to reduce child poverty and the concerns many have expressed concerning the health of rural communities, a policy maker may wish to target policies to this particular area, if a significant problem exists.

The available evidence leads one to assess the incidence of poverty, by adjusting the poverty line for variations in living costs in regions, as well as for the employment status of the head and the demographic composition of income units. In this study adjustments were made to the Henderson Poverty Line according to a process suggested by Davidson and Lees (1992) which accounts for the lower costs of living outside the capital cities.

It was found that the unrealistic 1987 election pledge by Bob Hawke that "...by 1990 no child will be living in poverty..." has not been fulfilled. It is estimated that the proportion of income units with children below an adjusted poverty line in Australia in 1990 was 12.1 per cent, while the proportion of income units in poverty was 13.1 per cent. In addition, it was found that 12.8 per cent of children were below the adjusted poverty line in Australia. If the adjustments are not made to the Henderson Poverty Line to account for rural-urban regional price differences, 15.6 per cent of children, 14.8 per cent of income units with children and 15.3 of per cent of all income units were found to be living in poverty. The results of the research confirm that there are children who can be identified as being poor in Australia. Compared to other studies, notably King (1991), these estimates would appear to be credible (see Table 1).

The concern that the proportion of children in poverty in non-capital city regions of Australia may now be greater than in the capital cities would appear to be true, if adjustments are not made to the poverty line. It was found that child poverty levels were approximately 3.5 per cent higher in non-capital city regions. However, if adjustments are made to the Henderson Poverty Line the extent of child poverty is shown to be greater in the capital cities, in the order of 3 per cent. Without the adjustment to Henderson Poverty Line, the poverty gap is higher in non-capital city areas for almost all categories. But when adjustments are made to the Henderson Poverty Line the gap decreases in non-capital city regions and remains lower than that in capital cities. Regardless of the region or the method of assessment, the income shortfall is always higher where the head of the income unit was unemployed and the family unit type was large.

The differences that results from the use of adjusted and unadjusted Henderson Poverty Lines provide an interesting insight into the circumstances poor households find them selves in. It can be concluded from these differences

that in the non-capital regions, many households find themselves to be close to the Henderson Poverty Line. Thus, it would not take a great injection of income to move a significant number of income units above the poverty line. Further, if, as Harding and Szukalska (1999) and others have suggested, using the Henderson Poverty Line results in an over estimate of the number of income units in poverty, then the health of these rural communities would not appear to be as dire as it is in the capital cities.

The results found in this study have implications for both poverty reduction and the policy measures designed to alleviate it. Even if the differences in the rate of poverty between regions are not significantly different or do not appear to be of concern, it cannot be assumed that there are no elements in provincial areas contributing to the overall rate of poverty. Further, it cannot be assumed that people in poverty in provincial regions do not suffer from different sorts of deprivation that capital city people who are in poverty. All that has been found is that the level of poverty is similar and is possibly associated with similar characteristics. So, regardless of where children live, if they are from income units where the head is unemployed and/or they come from large units, they are likely to be in poverty. Hence, policy measures should be directed towards unemployment and family size concerns, before regional interests are canvassed.

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