

The Calculation and Use of Poverty Lines in Australia

David Johnson*
Institute of Applied Economic
and Social Research
University of Melbourne

1. Introduction

Poverty lines are benchmark income levels for various types of family income unit. If the income of a family income unit is less than the benchmark applicable to it, then the family is considered to be in poverty. A family income unit is the family group normally supported by the income of the unit. The most common types of family income unit are single person, couple, single parent with dependants and couple with dependants.

Poverty lines may be divided into two categories: absolute poverty lines and relative poverty lines.

An absolute poverty line is defined for some base period as the cost of buying a basket of goods and services to meet a minimum set of basic needs (food, shelter, clothing, etc.). The consumer price index (CPI) is a commonly used measure of the cost of goods and services. An absolute poverty line is updated to any later period by multiplying its value in the base period by the ratio of the cost of the basket of goods and services in the later period to its cost in the base period.

A relative poverty line is defined for some base period as a fixed proportion of some measure of average income, for example, average earnings or income per head. It is updated to a later period by multiplying its base-period value by the ratio of the value of the average income measure in the later period to its value in the base period.

Changes in the standard of living can be measured by changes in income per

head relative to changes in the CPI, that is, by changes in the real purchasing power of average income. On this measurement, since 1973-74 Australia's standard of living has risen by about 17 per cent. Consequently relative poverty lines, which are updated by changes in average income, have risen faster than absolute poverty lines, which are updated by changes in the CPI. Similarly, if living standards were to fall, then relative poverty lines would fall faster than absolute poverty lines.

The welfare of poor families can be improved in two ways. Firstly, improvements in the general standard of living will raise the income of everyone, including the poor. Secondly, with no overall change in the general standard of living, changes in income distribution can raise the income of the poor, but only at the expense of the non-poor.

Looked at from a different angle this means that in the absence of changes in income distribution the proportion of families below a relative poverty line will be constant. However, when general living standards rise these families will be better off. Similarly when living standards fall the material welfare of all people, including those below a relative poverty line, will fall, though the proportion of the population below a relative poverty line will not change.

In Australia the best known and most widely used poverty lines are those established by the 1973 Commission of Inquiry into Poverty (Henderson 1975). Since 1975 the Institute of Applied Economic and Social Research (IAESR) has updated the Henderson poverty lines on a quarterly basis using a measure of changes in average income, rather than costs. That is, they are treated as relative poverty lines.

The remainder of this article is organised as follows. In Section 2 the development of poverty lines is traced briefly and in Section 3 the method of calcu-

lating the Henderson poverty lines is described. The uses and a limitation of Henderson poverty lines are discussed in Section 4. Section 5 summarises the main points made in the article.

2. The Development of Poverty Lines Overseas and in Australia

Early attempts to establish poverty lines in England and the United States were based on the budgetary approach in which poverty is defined in terms of the costs of meeting minimal physical requirements for living.

In 1887 Charles Booth examined the income and status of families of school-age children from a survey in London, and found that 30 per cent of the population were in what he regarded as acute poverty. In 1902 Seebohm Rowntree published the findings of a survey of housing, occupation and earnings of every wage-earning family in York, England. Rowntree established a poverty line by estimating how much it would cost to buy a basket of necessities under the headings of food, clothing, fuel and household sundries. Bowley in 1912, defined a poverty line in terms of the actual spending habits of the population rather than the budgeted standard defined by Rowntree. The most recent example of a budget-based poverty line is that provided by Mollie Orshansky in the United States in 1965. Orshansky developed a poverty line based on the estimated cost of achieving a minimum level of nutrition. She took account of other necessary expenses by multiplying the cost of food by a factor of three. (She assumed that poor people spent one-third of their income on food.)

It was not until 1964 that the first detailed study of poverty in Australia was undertaken (Henderson, Harcourt and Harper 1970). This was the first poverty survey by the IAESR under the direction of Professor Ronald Henderson. The

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1964 study set a poverty line for a standard family of two adults and two children with the head of the family working, at the level of the then basic wage plus child endowment. This amounted to \$33 per week after paying personal income tax or 56.5 per cent of seasonally adjusted average weekly earnings in Australia. (Average weekly earnings are used as a measure of average income.) Henderson, Harcourt and Harper (p. 1) state in justifying this selection:

This is a definition of poverty so austere as, we believe, to make it unchallengeable. No one can seriously argue that those we define as being poor are not so.

We chose this basic-wage content of the poverty line because of its relevance to Australian concepts of living standards—the basic wage being the lowest wage which can be paid to an unskilled labourer on the basis of, in the famous phrase of Mr Justice Higgins, 'the normal needs of an average employee regarded as a human being living in a civilised community.' This poverty line also has international relevance since, in its relationship to average earnings, to average incomes and to basic social service rates, it is comparable to the poverty lines that have been adopted in some surveys carried out overseas, particularly in the United Kingdom, the United States of America and Denmark.

In this argument the authors appear to support their poverty line using both absolute and relative notions of poverty. At around the same time researchers concerned with poverty in western countries were increasingly using the relative approach which recognised that, in a country such as Australia, even the poorest people receive sufficient income to exceed the minimum requirements of food, clothing and shelter for health. Yet

some people are still regarded as poor relative to others. The starting point for the measurement of poverty using this approach is the continually moving average standards of the community. The poor are those who fall far below these average standards.

In 1973 Professor Henderson was appointed chairman of a Commission of Inquiry into Poverty, or the Henderson poverty inquiry. The inquiry updated the benchmark income, from the 1964 study, for the standard family to the September quarter 1973 to account for

increases in average weekly earnings in the intervening period. The new poverty line, now known as the Henderson poverty line, was set at \$62.70 per week after tax, also equal to 56.5 per cent of average weekly earnings. By using average weekly earnings for updating, the Henderson inquiry confirmed the Henderson poverty lines as a relative measure of poverty.

Poverty lines for family income units other than the standard family were derived from the benchmark, using a set of equivalence scales. Equivalence

**Table 1 Equivalence Scales Using a Couple Plus Two Dependant Children
Where the Head Works as the Standard**

Type of family income unit	Head working		Head not working	
	All costs (1)	All costs less housing (2)	All costs (3)	All costs less housing (4)
1. Couple	0.7122	0.5209	0.6115	0.4201
2. Couple plus 1	0.8561	0.6475	0.7554	0.5468
3. Couple plus 2	1.0000	0.7741	0.8993	0.6734
4. Couple plus 3	1.1439	0.9007	1.0432	0.8000
5. Couple plus 4	1.2878	1.0259	1.1871	0.9252
6. Couple plus 5	1.4245	1.1453	1.3237	1.0446
7. Couple plus 6	1.5612	1.2734	1.4604	1.1727
8. Couple plus 7	1.6978	1.3928	1.5971	1.2921
9. Couple plus 8	1.8345	1.5209	1.7338	1.4201
10. Couple plus 9	1.9712	1.6489	1.8705	1.5482
11. Couple plus 10+	2.1367	1.7885	2.0360	1.6878
12. Single person	0.5324	0.3583	0.4317	0.2576
13. Single parent plus 1	0.6835	0.4921	0.5827	0.3914
14. Single parent plus 2	0.8273	0.6187	0.7266	0.5180
15. Single parent plus 3	0.9712	0.7453	0.8705	0.6446
16. Single parent plus 4	1.1151	0.8719	1.0144	0.7712
17. Single parent plus 5	1.2590	0.9971	1.1583	0.8964
18. Single parent plus 6	1.3957	1.1165	1.2950	1.0158
19. Single parent plus 7	1.5324	1.2446	1.4317	1.1439
20. Single parent plus 8	1.6691	1.3640	1.5683	1.2633
21. Single parent plus 9	1.8058	1.4921	1.7050	1.3914
22. Single parent plus 10+	1.9424	1.6201	1.8417	1.5194

scales relate the income levels required by different types of family income unit to attain a given standard of living. Conventionally, the standard family has a score of 1 on the equivalence scale. Hence, some other income unit with a score of 1.2, say, requires, according to the scale, 20 per cent more income than the standard family in order to attain the same standard of living.

3. Calculation and Updating of the Henderson Poverty Lines

3.1 Updating the Benchmark Income

From the September quarter 1973 until the December quarter 1980, the IAESR published updates of the poverty lines, maintaining the value for the standard family at 56.5 per cent of average weekly earnings. The updates for a particular quarter were obtained by taking the poverty line values in the September quarter 1973, and multiplying them by the ratio of average weekly earnings in the particular quarter to average weekly earnings in the September quarter 1973.

There were two main problems with the use of average weekly earnings for updating. Firstly, whilst the poverty lines refer to income after personal income tax has been paid, average weekly earnings include tax. This implies that the poverty lines will be maintained as constant proportions of before-tax income. It does not follow that they will be maintained as constant proportions of after-tax income (which would be necessary to maintain consistency with the after-tax definition of the Henderson poverty lines). The second problem is that average weekly earnings, which measure the average income of wage and salary earners only, are a narrow measure of income. A change in the fortunes of wage and salary earners relative to the self-employed, or to those on social security benefits, will affect the (relative) poverty of the poor but will not affect poverty lines updated by movements in average weekly earnings.

Since 1976 the Australian Bureau of Statistics (ABS) has published quarterly, seasonally adjusted estimates of household disposable income in its *Quarterly*

Estimates of National Income and Expenditure (Catalogue No. 5206.0). Household disposable income is the total income of households from all sources (that is, it includes wages, social security payments, rents, interest, dividends, and earnings from private business) less personal income tax payments. The ABS also publishes population estimates on a quarterly basis (in *Australian Demographic Statistics*, Catalogue No. 3101.0). Consequently, it is possible to make quarterly estimates of per capita household disposable income. Per capita household disposable income is a more appropriate series than average weekly earnings for updating the poverty lines because it is calculated after tax and it is a wide measure of income. From the March quarter 1981 the IAESR has updated the Henderson poverty lines on the basis of movements in per capita household disposable income.

However, the use of per capita household disposable income as the means of updating the poverty lines still has an important problem. Published data on both household income and popula-

Table 2 Simplified Costs for Family Income Unit Members Related to Their Employment or Dependency Status

Family income unit member	Number of points
Head working	20.0
Head not working	13.0
Spouse working	18.5
Spouse not working	9.5
Dependant child	7.5

Source: Henderson (1975), Appendix F, p. 356.

Table 3 Standard Costs Used in the Adjustment of Income for Families of Varying Size

Family size	Number of points for:		
	Housing costs	Fuel, power, ancillary costs	Total
1	12.1	4.9	17.0
2	13.3	6.7	20.0
3	14.5	8.0	22.5
4	15.7	9.3	25.0
5	16.9	10.6	27.5
6	18.2	11.8	30.0
7	19.4	12.6	32.0
8	20.0	14.0	34.0
9	21.2	14.8	36.0
10	21.8	16.2	38.0
11	22.4	17.6	40.0
12+	24.2	19.8	44.0

Source: Henderson (1975), Appendix F, p. 354.

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tion are estimates, subject to revision. Consequently the values for per capita disposable income and therefore for the poverty lines will also be estimates. As more information becomes available the ABS may revise the estimates for, either or both, population and household disposable income for some or all past quarters. Whenever the estimates of population or household disposable income are revised it is necessary to re-estimate the poverty lines.

3.2 The Equivalence Scales

Equivalence scales describe the relationships between the living costs of a standard family income unit and other types of family income unit. The equivalence scales calculated by the IAESR, are shown in Table 1. The table shows values on the equivalence scale for twenty-two types of family income unit. Column 1 shows the equivalence scale for family income units in which the head of the family is working. The index is set at 1.0000 for the standard family, that is, for a couple plus two dependant children, where the head of the family is working. The value on the scale for a couple with no dependant children is 0.7122 and the value for a single working parent with two dependant children is 0.8273. Column 2 shows the equivalence scale for all costs except housing costs, again for family income units where the head of the family is working. The separate scale for the situation in which housing costs are excluded enables the effects of housing costs to be identified. Columns 3 and 4 show equivalence scales for situations in which the head of the family is not working. The values on these scales are lower than the values for comparable family income units shown in columns 1 and 2 because in these scales certain costs associated with working, such as travel and extra costs of meals and clothing, have been

excluded.

Table 1 has been calculated using data from a study undertaken in New York in 1954 which obtained very detailed costs for families in different circumstances. It may seem incongruous that data derived from foreign sources and from such an old study should be used to determine equivalence scales in Australia for 1987. Manning (1982) has defended the continued use of the equivalence scales based on the New York data by pointing out that divergences with alternative scales are not large and that similar scales have been

derived in different ways from different base data. Whiteford (1985) conducted an appraisal of sixty sets of equivalence scales against a number of criteria (consistency, comprehensiveness, empirical plausibility and relevance, and public acceptability). He concluded that no individual scale performed well in all respects. Overall the Henderson equivalence scales performed no worse than the other scales.

The equivalence scales shown in Table 1 were derived using the information in Tables 2 to 4. Table 2 shows costs, derived from the New York data,

Table 4 Equivalence Costs for Twenty-Two Family Income Units

Type of family income unit	Number of points			
	Head working		Head not working	
	All costs (1)	Costs other than housing (2)	All costs (3)	Costs other than housing (4)
1. Couple	49.5	36.2	42.5	29.2
2. Couple plus 1	59.5	45.0	52.5	38.0
3. Couple plus 2	69.5	53.8	62.5	46.8
4. Couple plus 3	79.5	62.6	72.5	55.6
5. Couple plus 4	89.5	71.3	82.5	64.3
6. Couple plus 5	99.0	79.6	92.0	72.6
7. Couple plus 6	108.5	88.5	101.5	81.5
8. Couple plus 7	118.0	96.8	111.0	89.8
9. Couple plus 8	127.5	105.7	120.5	98.7
10. Couple plus 9	137.0	114.6	130.0	107.6
11. Couple plus 10+	148.5	124.3	141.5	117.3
12. Single person	37.0	24.9	30.0	17.9
13. Single parent plus 1	47.5	34.2	40.5	27.2
14. Single parent plus 2	57.5	43.0	50.5	36.0
15. Single parent plus 3	67.5	51.8	60.5	44.8
16. Single parent plus 4	77.5	60.6	70.5	53.6
17. Single parent plus 5	87.5	69.3	80.5	62.3
18. Single parent plus 6	97.0	77.6	90.0	70.6
19. Single parent plus 7	106.5	86.5	99.5	79.5
20. Single parent plus 8	116.0	94.8	109.0	87.8
21. Single parent plus 9	125.5	103.7	118.5	96.7
22. Single parent plus 10+	135.0	112.6	128.0	105.6

measured in points for various members of a family income unit. The table shows that a working head incurs 20 points and a dependant child incurs 7.5 points.

Table 3, also derived from the New York data, shows housing, fuel, power and ancillary costs (again in points) for all family income units. These costs rise with increases in the number of members of the family. For instance a family composed of a single person incurs 12.1 points for housing and 4.9 points for fuel, power and ancillary costs whereas a family consisting of a couple plus one dependant incurs 14.5 points for housing and 8.0 points for fuel, power and ancillary costs.

The information from Tables 2 and 3 is used to calculate a table of equivalence costs. Table 4 shows a table of equivalence costs for twenty-two income units for two situations of employment status (head working and head not working), where all costs are considered and where costs other than housing costs are considered. The entry for a couple with the head working (49.5 points, see line 1, column 1) is the sum of 20 points for a working head and 9.5 points for a non-working spouse (from Table 2) plus a total of 20 points for housing, fuel, power and ancillary costs (from Table 3). Similarly the total number of points for a family unit consisting of a non-working single parent with three dependant children for costs other than housing (line 15, column 4) is 44.8, made up of 9.3 points for fuel, power and ancillary costs plus 13.0 points for the non-working single parent and 22.5 (that is, 3×7.5) points for three dependant children.

Table 1 is obtained from Table 4 simply by setting the value for the standard family (a couple plus two dependant children), on the scale where the head is working and all costs are included, at 1.0000 and dividing all of the other cells in Table 4 by 69.5 (the number of cost

points for the standard family).

3.3 Calculation of Poverty Lines

The equivalence scales are used to calculate poverty lines for all of the income units described in Table 1 starting with the benchmark income of \$62.70 for the standard family in the September quarter of 1973.

For example from Table 1 the equivalence value for a family income unit consisting of a couple where the head works and where all costs are included is 0.7122. Accordingly the poverty line for this family income unit in the September quarter 1973 was \$44.65 per week (0.7122×62.70). Similarly for a single non-working parent with three dependant children the poverty line not including housing costs was \$40.42 ($0.6446 \times \62.70) in the September

quarter 1973.

The poverty lines may be updated from the September quarter 1973 to any quarter up to the current quarter using data on per capita household disposable income. Table 5 shows estimates of per capita household disposable income derived from the latest ABS estimates of population and household disposable income. Per capita household disposable income was \$48.50 in the September quarter of 1973-74 and \$220.60 in the September quarter of 1987-88. The poverty line for any family income unit for any particular quarter may be obtained by multiplying the ratio of the per capita household disposable income for the quarter to per capita household disposable income in the September quarter 1973, by the product of the benchmark income and the family income unit's value

**Table 5 Household Disposable Income
(\$ Per Week Per Head)**

Year	September quarter	December quarter	March quarter	June quarter
1973-74	48.5	49.2	51.1	52.8
1974-75	57.5	59.4	63.0	64.3
1975-76	68.1	69.4	70.5	73.1
1976-77	78.4	77.8	78.6	80.9
1977-78	82.8	84.2	87.2	89.2
1978-79	92.9	94.3	98.0	99.4
1979-80	100.9	103.6	105.4	110.3
1980-81	113.9	117.3	117.6	122.7
1981-82	126.4	131.4	131.7	138.2
1982-83	139.8	145.2	146.8	147.6
1983-84	155.8	160.7	163.9	167.6
1984-85	169.1	172.7	178.3	183.3
1985-86	185.5	192.6	196.4	196.8
1986-87	201.6	204.7	207.3	211.7
1987-88	220.6			

Sources: ABS, *Quarterly Estimates of National Income and Expenditure*, September Quarter 1987, Catalogue No. 5206.0; *Australian Demographic Statistics*, December Quarter 1986, March and June Quarters 1987, Catalogue No. 3101.0; and projections by the IAESR.

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on the equivalence scale. (The product of the benchmark income and the value on the equivalence scale is the poverty line for the income unit in the September quarter 1973.) The poverty line for the standard family in September 1987 is \$285.20 ($62.70 \times 1.000 \times (220.6/48.5)$), and for a couple with no dependants where the head works is \$203.10 ($62.70 \times 0.7122 \times (220.6/48.5)$).

The general formula for calculating the poverty lines can be expressed as:

$$\text{Poverty line for income unit } x \text{ in quarter } y = 62.70 \times \frac{\text{value on equivalence scale for income unit } x}{\text{per capita household disposable income in quarter } y} \times \frac{\text{per capita household disposable income in Sept. quarter 1973}}{\text{per capita household disposable income in quarter } y}$$

The poverty lines are published by the IAESR in the quarterly newsletter, 'Poverty Lines : Australia'. Table 6 pre-

sents poverty lines for the September quarter 1987 for the most common family income units.

3.4 Re-estimating the Poverty Lines

Past estimates of the poverty lines are superseded with the release of a new issue of the quarterly poverty lines newsletter. As mentioned earlier the poverty lines are based on ABS estimates of population and household disposable income which are subject to revision. Therefore it is not appropriate to use poverty lines from different issues of the poverty lines newsletter. To enable valid comparison of the poverty lines at different points in time, the IAESR provides, with each issue of the newsletter, information like that given in Tables 5 and 6. This is sufficient for the calculation of poverty lines for all quarters from the September quarter 1973 onwards. For instance, if you wish to know the poverty line for the June quarter 1981 for any household type, multiply the current value of its poverty line, by the ratio of per capita household disposable income in the June quarter 1981 to that in the current quarter; for example, the poverty line for a standard family in June 1981 would be $\$285.20 \times (122.7/220.6)$, or \$158.60.

Table 6 Poverty Lines: Australia, September Quarter 1987^a

Type of family income unit	All costs including housing (\$)	Costs other than housing (\$)
<i>Head in workforce</i>		
Couple	203.1	148.6
Couple with 1 child	244.1	184.7
Couple with 2 children	285.2	220.8
Couple with 3 children	326.2	256.9
Couple with 4 children	367.3	292.6
Single person	151.8	102.2
Single parent with 1 child	194.9	140.3
Single parent with 2 children	235.9	176.4
Single parent with 3 children	277.0	212.6
Single parent with 4 children	318.0	248.7
<i>Head not in workforce</i>		
Couple	174.4	119.8
Couple with 1 child	215.4	155.9
Couple with 2 children	256.4	192.0
Couple with 3 children	297.5	228.2
Couple with 4 children	338.5	263.9
Single person	123.1	73.5
Single parent with 1 child	166.2	111.6
Single parent with 2 children	207.2	147.7
Single parent with 3 children	248.3	183.8
Single parent with 4 children	289.3	219.9

Note: (a) Based on the preliminary estimate of seasonally adjusted household disposable income from all sources after taxes per head per week for September quarter 1987 of \$220.60 published in ABS, *Quarterly Estimates of National Income and Expenditure*, Catalogue No. 5206.0.

4. The Uses and a Limitation of the Henderson Poverty Lines

Manning (1982) has stated that there are three main uses to which the (Henderson) poverty lines are put. These are

- (i) to assess the relative incidence of poverty among different social groups,
- (ii) to measure changes in incidence of poverty over time, and
- (iii) to act as a standard of adequacy for social security payments.

The most reliable estimates of the relative extent of poverty between social groups at a point in time have been derived from the Household Income and Expenditure surveys carried out by the ABS. Results from the most recent survey in 1986 have not yet been published. However, the 1981-82 Household Income survey has been widely analysed. For instance Gallagher and Foster (1986) estimated the percentage of adult income units (since families headed by juveniles are excluded from the analysis the results refer only to adult income units) of various compositions living below the Henderson poverty line. Some of their findings are shown in Table 7. The final column of Table 7 shows the estimated percentage of each adult income unit below the poverty line. The table shows that whilst 12.4 per cent of the total population were living below the poverty line, the extent of poverty was very much higher among some adult income units. For instance, over 50 per cent of all single parent families with two or more children were below the poverty line. Readers interested in a detailed analysis of the extent of poverty among various social groups should consult the article by Gallagher and Foster.

Manning's second suggested use has also been explored by researchers. Gallagher (1985) compared the incidence of poverty among different income units over time. Poverty was measured by the proportion of adult income units estimated to be below the Henderson poverty lines in 1972-73, 1973-74, 1978-79 and 1981-82. These four dates refer to the years in which surveys gathering data on the income of Australian adult income units were conducted. Results from the study are reported in Table 8. The 1985 study used a methodology which is slightly different to that which formed the basis for Table 7 and, according to Gallagher and Foster, infe-

rior. The results are therefore not strictly comparable. The cells in Table 8 show the percentage of each adult income unit estimated to be below the poverty line

in each of the four years. According to Table 8, the overall incidence of poverty changed little between 1972-73 and 1981-82. There were 10.2 per cent of

**Table 7 Income Units^a with Incomes Below
Equivalent Disposable Income of \$6 881 in 1981-82**

(1)	(2)	(3)	(4)	(5)
Composition of income unit		Total number of units '000	Number of units below detailed ^b Henderson poverty line '000	Units below poverty line as a ratio of total units (4)/(3) per cent
Adults	Children			
1	0	2404.9	361.0	15.0
1	1	142.7	54.3	38.0
1	2	78.2	44.5	56.8
1	3	32.5	23.8	73.3
1	4+	8.5	7.9	93.2
2	0	1233.8	53.1	4.3
2	1	458.5	26.4	5.7
2	2	646.7	42.5	6.5
2	3	286.1	28.1	9.8
2	4+	98.8	30.1	30.5
Total single parent units		261.9	130.5	49.8
Total couple parent units		1490.1	127.1	8.5
Total population		5290.7	671.1	12.4

Notes: (a) Excludes income units headed by a person who is self-employed and income units not headed by an adult.

(b) The Henderson poverty inquiry presented two sets of equivalence scales: detailed scales in which the age and sex of members of the family income unit affected the value of the unit on the scale, and simplified scales in which the age and sex of members of the family income unit did not affect the value of the unit on the scale. Since the age and sex of members of a family income unit did not make much difference to the overall pattern, the IAESR has used the simplified scales in the calculation of the poverty lines. Only the simplified scales are described in this article. However in this table poverty has been measured by calculating the proportion of family income units below Henderson poverty lines calculated using the detailed scales.

Source: Adapted from Gallagher and Foster (1986, Tables 1 and 2).

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all adult income units, excluding income units headed by self-employed persons, below the Henderson poverty line in 1972-73, and 10.3 per cent in 1981-82. However, the characteristics of the poor did change. In the earlier years a higher proportion of single person adult income units were in poverty (18.3 per cent in 1972-73 declining to 10.6 per cent in 1981-82) whereas in later years there was a higher proportion of adult income units with dependant children in

poverty. The percentage of single parent income units in poverty rose from 33.8 per cent in 1972-73 to 46.2 per cent in 1981-82 and the percentage of couple income units in poverty rose from 3.4 per cent in 1972-73 to 6.7 per cent in 1981-82.

The comparison of the incidence of poverty over time using the Henderson poverty lines should be treated with caution. In the introduction it was pointed out that the welfare of the poor can be

raised by increases in general standards of living, or by income redistributions in favour of the poor at an unchanged general standard of living. A limitation of the Henderson poverty lines is that they do not indicate changes in the real purchasing power of poverty line incomes. That is, they do not indicate changes in the general standard of living. Estimates of the change in the extent of poverty derived using the Henderson poverty lines, such as those shown in Table 8, will measure only changes brought about by redistributions of income.

An estimate of the extent of improvements in the welfare of the poor caused by changes in general living standards may be derived by comparing a poverty line updated in the way previously described, with a poverty line updated by changes in consumer prices. That is, the improvement is shown by comparing a relative poverty line with an absolute poverty line.

Table 9 shows poverty lines updated using per capita household disposable income (column 1), and an index of consumer prices (column 2) for the years 1973-74 to 1986-87. The index of consumer prices is obtained by adding up the components of the CPI weighted by their shares in the total expenditure of the lowest three income deciles. The final column of Table 9 shows the difference between the two poverty lines expressed as a percentage of the absolute poverty line (the poverty line updated by the index of consumer prices). This difference is a measure of the change in the real purchasing power of the relative poverty line. The table shows that by 1986-87 the real purchasing power of the poverty line income has risen 16.6 per cent. In other words a standard family whose income was adjusted to match movements in relative income would have 16.6 per cent more income than a family whose income was maintained just to match increases in

Table 8 Estimates of the Number of Income Units^a with Incomes Below the Detailed^b Henderson Poverty Lines: 1972-73, 1973-74, 1978-79 and 1981-82

Type of income unit	Percentage of income units below detailed Henderson poverty lines in:			
	1972-73	1973-74	1978-79	1981-82
Single person	18.3	18.3	10.7	10.6
Single parent with				
1 child	n.s.	26.7	26.4	34.1
2 or more children	n.s.	49.1	46.3	60.6
Total	33.8	36.8	36.3	46.2
Couple with				
0 children	1.9	4.1	5.1	4.3
1 child	2.9 ^c	4.1	5.1	6.1
2 children		3.9	6.5	6.7
3 or more children	7.2	12.6	11.5	14.8
Total	3.4	5.7	6.3	6.7
All adult income units (excluding the self-employed)	10.2	11.1	9.3	10.3
All persons	8.2	n.c.	n.c.	11.2 ^d

Notes: n.s. — not stated; n.c. — not calculated.

(a) Excludes income units headed by a person who is self-employed and income units not headed by an adult.

(b) See note (b) in Table 7.

(c) Percentage for a couple with one or two children.

(d) As stated in Section 4, Tables 7 and 8 are not calculated on the same basis and are not strictly comparable.

Source: Adapted from Gallagher (1985, Table 1).

consumer prices.

Thirdly, Manning suggested that the poverty lines act as a standard for assessing the adequacy of social security payments. In view of this, the IAESR regularly publishes in its quarterly newsletter a comparison of some representative levels of social security payments with the appropriate poverty lines. This comparison is not exhaustive. For example, no account is taken of the fringe benefits (for example, health card, subsidised rent, power, transport, etc.) to which many pensioners and beneficiaries are entitled. The Social Welfare

Policy Secretariat (1984) estimated that in 1981-82 these fringe benefits could have been worth between \$12 and \$26 per week for eligible single pensioners, that is between 15 and 33 per cent of the poverty line. Table 10 shows comparisons of the latest poverty lines (September quarter 1987) for income units in which the head does not work with levels of social security benefits and payments at that time.

5. Summary

Whilst early research into poverty con-

centrated on defining poverty in terms of peoples' physical needs, nowadays in western societies such as Australia, many people consider that a more relevant definition of poverty is a relative one.

In Australia the most widely used and accepted poverty lines are the Henderson poverty lines. The Henderson poverty lines are made up of three components: the benchmark income for the standard family, the equivalence scales, and movements in per capita household disposable income. The benchmark income is set at \$62.70 per week after tax for the standard family in the September quarter 1973.

The equivalence scales are derived from 1954 New York budget data. Whilst these scales are neither locally based nor up to date, they are not very different from alternative scales.

Movements in per capita household disposable income provide the most suitable indicator of changes in average personal incomes after tax, for use in updating the poverty lines.

The concept of poverty implicit in the Henderson poverty lines is a relative concept. The use of per capita household disposable income to update the poverty lines means that the incomes of the poor are defined relative to general income levels. As per capita household income after tax increases then so too do the poverty lines.

Poverty lines can be used to assess the relative incidence of poverty among different social groups and over time. They can also be useful in assessing the adequacy of social security pensions and benefits.

A limitation of relative poverty lines is that they do not measure changes in the real purchasing power of poverty line incomes. Since 1973-74, Australia's standard of living has risen by about 17 per cent; so has the purchasing power of Henderson poverty line incomes.

Table 9 Comparison of the Poverty Line Updated Using Household Disposable Income Per Head and Updated Using the Consumer Price Index

Year	Value of poverty line (\$/week) for a standard family updated by changes in:		Increase in real purchasing power of poverty line $((1)/(2) - 1) \times 100$ per cent (3)
	Household disposable income per head (1)	Consumer price index ^a (2)	
1973-74	65.2	65.2	0
1974-75	78.9	76.1	3.7
1975-76	90.9	86.0	5.7
1976-77	102.0	98.6	3.4
1977-78	111.0	108.3	2.5
1978-79	124.3	116.7	6.5
1979-80	135.8	128.6	5.7
1980-81	152.4	141.2	7.9
1981-82	170.6	156.3	9.1
1982-83	187.4	174.7	7.3
1983-84	209.7	186.3	12.6
1984-85	227.7	194.0	17.4
1985-86	250.0	210.1	19.0
1986-87	276.4	229.3	16.6

Note: (a) Weighted by the expenditure pattern of the lowest three deciles reported in ABS, Catalogue No. 6530.0.

Sources: ABS, 1984 Household Expenditure Survey, Australia: Summary of Results, Catalogue No. 6530.0; Norton, W. and Kennedy, P. J. (1985), Australian Economic Statistics 1949-50 to 1984-85: 1 Tables, Reserve Bank of Australia Occasional Paper No. 8A; and IAESR, 'Poverty Lines : Australia'.

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**Table 10 Comparison of Henderson Poverty Lines with the Income of Adults who Receive Maximum Social Security Payments and Have No Other Income, September Quarter 1987
(Per Capita Household Disposable Income = \$220.60 Per Week)**

	Pensions/ benefits ^a	Family allowance ^b	Family income supplement or additional benefit ^c	Rent assistance ^d		Total income ^e		Poverty line
				Unemployed	All other	Unemployed (sum of (1) to (4))	All other (sum of (1), (2), (3), (5))	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Single person								
unemployed	104.75	0.0	0.0	10.00	—	114.75	—	123.1
all other categories	112.15	0.0	0.0	—	15.00	—	127.15	123.1
Single parent with								
1 child	112.15	5.25	29.00	10.00	15.00	156.40	161.40	166.2
2 children	112.15	12.75	46.00	10.00	15.00	180.90	185.90	207.2
3 children	112.15	21.75	63.00	10.00	15.00	206.90	211.90	248.3
4 children	112.15	30.75	80.00	10.00	15.00	232.90	237.90	289.3
Couple with								
0 children	187.00	0.0	0.0	10.00	15.00	197.00	202.00	174.4
1 child	187.00	5.25	17.00	10.00	15.00	219.20	224.25	215.4
2 children	187.00	12.75	34.00	10.00	15.00	243.75	248.75	256.5
3 children	187.00	21.75	51.00	10.00	15.00	269.75	274.75	297.5
4 children	187.00	30.75	68.00	10.00	15.00	295.75	300.75	338.5

- Notes:**
- (a) Benefits include age or invalid pensions; supporting parent's benefits and unemployment, sickness and special benefits. The cost of living adjustment in May 1987 increased the basic rates of all benefits except unemployment benefits for single persons with no dependants to \$112.15 per week for a single person (from \$106.20 in December 1986) and \$187.00 per week for a married couple (from \$177.10 in December 1986). The unemployment benefit for single persons with no dependants was raised to \$104.75 per week in May 1987.
 - (b) Family allowances in June quarter 1987 were paid to every family with dependant children living in Australia. There was no change in the rates in the May 1987 cost of living adjustment.
 - (c) Family income supplement is a tax-free sum paid to low income earners for each dependant child in the family. An additional benefit is payable to pensioners and beneficiaries for each dependant child in the family. The full rate is \$17.00 per week per child. In addition single pensioners with children may be paid a guardian's allowance of \$12 per week.
 - (d) Rent assistance is a means-tested payment to families who pay more than \$15 per week for rent or lodgings in the private sector. It is not paid to those who rent government houses or flats. The rent assistance is subject to a ceiling with the maximum payment available to families paying \$30 or more per week for rent. During the September quarter 1987 the maximum rent assistance was \$15 per week for pensioners and \$10 per week for those unemployed beneficiaries who had been out of work for more than six months.
 - (e) The total is the sum of pensions, benefits and allowances for persons who have no other income and who receive rent assistance. The total for unemployed beneficiaries refers to those unemployed for more than six months. (Rental assistance is not available to those unemployed for less than six months.)

Sources: Information on benefits and allowances are set out in leaflets published by the Department of Social Security. The leaflets provide information on the rates and the total amounts of benefits and allowances paid and set out the conditions of eligibility as at the September quarter 1987.

The September quarter 1987 poverty lines were calculated from seasonally adjusted data on household disposable income, estimates of mid-quarter population and equivalence scales used by the IAESR.

Some Further Reading

Development of Poverty Lines in Australia and Overseas:

- Atkinson (1983, ch. 10)
 Jones (1983, ch. 2 and 3)
 Moser and Kalton (1971, ch. 1)
 Social Welfare Policy Secretariat (1981, ch. 1 and 2)
 Stanton (1973)

Source for Derivation of the Poverty Lines:

- Henderson (1975, Appendix F)

Discussion of Equivalence Scales:

- Social Welfare Policy Secretariat (1981)
 Whiteford (1985)

Criticism and Defence of the Henderson Poverty Lines:

- Howard (1982)
 Manning (1982)
 Saunders (1980)
 Stanton (1973)
 Stanton (1980)

Measurement of Poverty in Australia:

- Bradbury, Rossiter and Vipond (1986)
 Gallagher (1985)
 Gallagher and Foster (1986)
 Kakwani (1986, ch. 13)
 King (1987)
 Social Welfare Policy Secretariat (1981, ch. 5)

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- Stanton, D. I. (1980), 'The Henderson Poverty Line - A Critique', *Social Security*, December, 14-24.
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