

# **The Distribution of UK Household Expenditure, 1979-92**

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All interpretation of the data remains the responsibility of the authors.

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# 1 Introduction

The rapid growth in income inequality in the UK over the 1980s has excited a good deal of interest and concern<sup>1</sup>. A primary reason for this concern has been the widely-drawn conclusion that the living standards of the very poorest have at best failed to keep pace with the living standards of the rest of society. This report sheds new light on the living standards debate, by considering how household expenditure has changed over the period 1979-1992. Examination of the expenditure of households appearing in the Family Expenditure Surveys of 1979-1992 reveals some rather different trends to the well-documented changes in household incomes.

Most statistics about living standards in the UK have focused on the measurement of income. These include the Households Below Average Income series published by the Department of Social Security (DSS, 1994) and our own study of the trends in household incomes over the last thirty years (Goodman and Webb, 1994). But income is not the only possible measure which could be used to capture the standard of living. How much a household *spends* on goods and services provides important information on the material well-being enjoyed by its members.

Often a household will choose to spend beyond its current income by running down its savings or by borrowing. Other households may decide to forgo the full benefits of their incomes today in order to save for the future. In these circumstances, household expenditure paints a rather different picture of living standards than does income.

Some evidence has already been published pointing to the usefulness of examining households' expenditure to provide information about living standards. The Households Below Average Income (HBAI) series (DSS, 1994) compares the distribution of expenditure and the distribution of income in order to provide a "useful additional insight" into household living standards, in particular for those households whose reported incomes are very low but whose expenditure is much higher.

There is very little evidence, however, on how the distribution of expenditure has changed over time<sup>2</sup>. This report constructs a consistent series of household expenditure, using information contained in the Family Expenditure Surveys of 1979-1992. This enables us to address the following key issues:

- (i) whether there has been a rise in inequality of expenditure between households to match the dramatic rise in income inequality witnessed over the 1980s;

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<sup>1</sup> For example, see The Joseph Rowntree Foundation Inquiry into Income and Wealth, Volumes 1 and 2 (1995)

<sup>2</sup> A recent study by Hancock and Smeaton (1995) examines how pensioners' expenditure has changed between 1979-1991 and compares this to changes in the expenditure of non-pensioners.

- (ii) whether the poorest groups have fared similarly over the period if living standards are measured by expenditure rather than by income;
- (iii) whether the people who are the poorest in terms of their spending are the same people as those who are poorest by income;
- (iv) whether those with the very lowest incomes show expenditure which is comparably low, and whether this has changed over time.

The chapter which follows discusses the advantages and drawbacks of using expenditure as a measure of living standards, comparing this to the case for using an income measure. The methodology used to construct the expenditure and income measures is outlined briefly, and elaborated upon further in the Appendix following the main body of this report.

Chapter 3 describes the trends in the overall distribution of expenditure, and looks at how the levels of expenditure of households at the top, middle and bottom of the expenditure distribution have changed since 1979. These are compared to the corresponding changes which have taken place in the distribution of income.

Chapter 4 examines the sorts of people who are the lowest spenders, and how this has changed over time. For these purposes, the population is broken down into family type, and economic status categories. The results are again compared to those for the income distribution.

Chapter 5 focuses on the expenditure of the lowest income households, providing evidence that many of these households have expenditure which is higher than the expenditure of households with much higher incomes.

## 2 Measuring Living Standards

The first part of this chapter compares the case for using income or expenditure to measure living standards. The expenditure and income definitions used in the rest of this report are outlined in the section of the chapter which follows.

### 2.1 Expenditure or Income as a Measure of Living Standards

Although official statistics in the UK use measures of income to assess changes in living standards, the presentation of low incomes statistics is often accompanied by warnings about how these statistics should be interpreted. The Households Below Average Income series presents supplementary information about households' access to consumer durables and household expenditure in order to present a fuller picture of living standards.

In some cases it appears from this extra information that the living standards of certain groups may not be as low as their incomes suggest. The implication is that for some households at least, expenditure may be a more reliable indicator of living standards than income.

If expenditure is taken as a better measure of living standards than income in some particular cases, the more general question is raised, is expenditure always a better indicator of household living standards than income? Or if it is only a better indicator under certain circumstances, exactly which circumstances are these?

There is no single measure which can fully capture an individual's standard of living. Income and expenditure provide different information about the circumstances of households, and neither can be discarded as irrelevant to that household's standard of living. The choice of one particular measure over another however may have strong implications for the conclusions which are drawn.

One clear advantage to using income as a measure of living standards is that the data available on household incomes is better suited to measurement than that available on household expenditure, or more accurately, *consumption*. (The difference between consumption and expenditure and some of the problems involved in measuring consumption and expenditure are outlined further below.)

Income may also better measure the opportunities available to a household to enjoy a particular standard of living if a household is choosing not to spend all of its income, but instead to save some of it for the future. An income measure of the standard of living would treat two households of the same size and with the same income as enjoying the same standard of living, even if one was spending all its current income, whereas the other was saving a large part of it, for example to facilitate consumption later in life. The income measure appears to be a good one in these circumstances, since if the second household were *choosing* to save, the income measure captures this element of choice.

But income measures have the serious limitation that they cannot take into account that consumers may live beyond their current incomes by borrowing or running down their savings. Such behaviour is particularly important when income streams are very variable, or else if future income is uncertain.

Consumption captures more directly than income the material well-being of a household at a particular time, by quantifying the benefits derived from the members' consumption of goods and services. This is the traditional economists' approach of linking the standard of living to the utility derived from consumption.<sup>3</sup>

If one of the two households discussed above was not saving, but instead was borrowing beyond its income to finance extra consumption, an income measure would still treat the two households as enjoying the same standard of living. The expenditure measure on the other hand is able to capture the choice of one of the households to enjoy a higher standard of living by borrowing.

The limitation of the income measure again becomes clear if savings behaviour, for example, varies with age. Consider the following stylized case: younger people typically receive higher incomes than pensioners, and people save and dis-save so as to smooth their consumption over a lifetime<sup>4</sup>. If the population were made up of households of varying age compositions, then even if all households smoothed their consumption to the same level throughout the whole of their lifetimes, an income measure would always show the younger generations to be "better off" than the older ones.

For certain groups of the population, incomes are particularly variable, and for these groups it is likely that a large degree of consumption smoothing via saving and dis-saving will occur. The degree to which households' incomes are subject to year-to-year variability is the topic of much current research in the UK since the release of the second (and soon third) wave of the British Household Panel Survey (see Webb, 1995) and Buck et al., 1994). The extent to which some households face even shorter-term variability of incomes is rather less known, but typically such groups will include the self-employed and the short-term unemployed.

For these variable-income groups it may be especially misleading to consider only their incomes in order to measure their standard of living. It is not only low income households whose incomes will be prone to variability. Clearly if there are households within the Family Expenditure Survey whose incomes are unusually low, and therefore not a good indicator of living standards, there will likewise be households whose incomes are unusually high and thus equally

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<sup>3</sup> See Sen (1985) for an alternative approach to the standard of living based on *capabilities*.

<sup>4</sup> This is a simplified characterisation of the life-cycle hypothesis, which predicts that individuals smooth consumption over a life-time in the face of variable (and possibly uncertain) income streams. The fact that many pensioners actually save from their incomes highlights the limitations of this stylized case fully to explain savings and consumption behaviour.



unreliable. It is therefore important to consider not just the expenditure of the lowest income households to provide additional insights into household living standards, but the expenditure of households across the income distribution.

There is one reason why the incomes of *low* income households in particular may be unreliable, and this is where it is likely that apparently low income households' incomes are being under-reported, even within the context of an anonymous survey such as the FES. Where under-reporting is occurring, consumption may give a better indication not only of the enjoyment of goods and services by that household, but may also provide a more accurate reflection of the actual income received. Even if income were taken to be the best indicator of living standards, the consumption levels of under-reporters could be taken to provide information about such income. This approach is taken in Baker (1993), who uses data from the FES from 1978 to 1992 on household expenditure on food in order to estimate the extent to which the self-employed under-report taxable income. HBAI provides information about the expenditure of low income households, partly in order to explore whether or not income is being under-reported.

Despite these advantages to using a consumption measure, there are several reasons why the measurement of consumption is problematic. These difficulties are outlined below.

## **Measurement Issues**

### **(i) The difference between consumption and expenditure**

Many goods such as consumer durables are not consumed at any one time, but yield a stream of consumption over time. Taking current expenditure as a proxy for consumption of these goods will over-estimate the amount of consumption derived from these at the time of the purchase, and will fail to capture the consumption derived from other goods purchased in the past which continue to yield a consumption stream.

The FES contains information concerning the household's access to consumer durables, which could in principle be used in conjunction with current expenditure data to give a fuller picture of actual consumption. Quantifying the benefit to a household from its use of durables is problematic however; in order to impute the current value of a durable to a household, information would be required not only about the original expenditure on the durable, but also, in order to allow for depreciation in the quality of the durable over time, knowledge would be required about the length of time which the household has been enjoying its use.

### **(ii) Infrequent, irregular and seasonal purchases**

Expenditure by households in the FES is primarily that which has been recorded by adult spenders in diaries kept over a two week period, although some expenditures are captured over a longer time frame than this (see section(iv) below). Many occasional purchases and purchases made regularly but less

frequently than every two weeks may thus only appear in the diaries of some spenders and not of others. Expenditure comparisons will then reveal differences in the timing of expenditures between households, which does not necessarily reflect consumption differences over even a slightly longer time frame.

One concern in analysing trends in household expenditure over time is that certain sorts of expenditures may have become more infrequent over time, and may be picked up in the diaries of fewer spenders appearing in later years of the FES as compared to earlier years. For example, it may be the case that more people now shop for necessities such as food once a month rather than once a week. The result of this would be that households in later years whose food spending is not picked up on the diaries will appear to spend less on food, and those whose food shopping does occur during the diary period will appear to spend more on food, than their regular-shopping counterparts in previous years' FES. This would clearly generate problems not only for comparing living standards on the basis of current expenditure across households within the same year, but also across different years over which the change in shopping habits had taken place. There is little clear evidence to suggest that this is a problem reflected in the data, however.<sup>5</sup>

Some expenditures are strongly seasonal; for example households interviewed in December (i.e. around Christmas) show markedly higher expenditure, particularly on alcohol<sup>6</sup> than their counterparts interviewed in other months. If the expenditure of households interviewed in different months are compared, it would appear that the December households have a higher living standard than the households interviewed earlier in the year.

These problems will also apply to income comparisons where sources of income are irregular, occasional, or seasonal. However, the nature of many purchases makes expenditure more prone to these difficulties than income. Although theories such as the life-cycle hypothesis suggest that consumers smooth their consumption over time, the periods across which consumption is smoothed is likely to be relatively long, and within a short time frame consumption expenditure is likely to be even more jagged or "lumpy" than income.

### **(iii) Under-reporting of expenditure**

Expenditure on tobacco and alcohol are known to be under-reported in the FES (for example see Atkinson, Gomulka and Stern, 1989). This will put a downward bias on the expenditure of some households but not of others, possibly distorting comparisons between households.

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<sup>5</sup> There do not appear to be fewer households reporting food expenditure in recent years of the FES, nor is it the case that the *variance* in food expenditure between households has become greater.

<sup>6</sup> this 'Christmas effect' has been recorded in Blundell, Pashardes and Weber (1993), using the expenditure of households in the Family Expenditure Surveys of 1970-1984.

#### **(iv) Discontinuities in the expenditure data**

The treatment of certain expenditures in the Family Expenditure Survey has changed over the period 1979-1992. The two main discontinuities concern credit card payments and so-called 'retrospective recall' questions about purchases made in the months prior to interview. If these discontinuities were not corrected for, it is likely that some of the changes observed over time would simply reflect the discontinuities in the series rather than genuine trends in household expenditure. The measure used in this paper is adjusted to account for the discontinuities, and is consistent as far as is possible. The nature of the discontinuities and the methods used to correct for them are outlined in the Appendix following this report.

### **2.2 The Construction of the Expenditure and Income Measures**

This section outlines briefly the way in which the expenditure and income measures used in this report have been constructed. The reader is referred to the Appendix for further details about the expenditure measure, and to Goodman and Webb (1994) for further information about the income definition.

All the results in this report are based on detailed information about households' incomes, expenditure, and characteristics contained in the Family Expenditure Surveys of 1979-1992. The Family Expenditure Survey is a voluntary survey of approximately 7,000 private households per year. Members of each household provide information both about their expenditure over a two-week period (and for some items over a longer time period) and about their income.

The methodology used to construct the measures follows that of the Households Below Average Income series designed by the Department of Social Security. The main features of the measures are as follows:

- (i) The measures are of current weekly *total household* income and expenditure. This means that expenditure on all goods and services has been accumulated across all 'spenders'<sup>7</sup> and income from all sources has been accumulated across all members of the household. The income measure is net of direct and local taxes, and payments of local and direct tax are not included in expenditure.
- (ii) In order to make the figures comparable across households of different sizes and compositions, all expenditures and incomes are expressed in terms of the equivalent income or expenditure which would be received/spent by a childless couple. This is done by means of the McClements equivalence scale.

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<sup>7</sup> 'Spenders' are household members aged 16 or over who are required to keep a diary record of their spending over a two week period. In forthcoming years the FES will extend expenditure diary-keeping to household members who are under 16.

- (iii) In order to overcome problems of non-response bias in the FES, the results for income and expenditure have been ‘grossed up’ by family type to ensure that they are representative of the overall UK population. In order to deal with non-response of the very-rich, the incomes and expenditures of households with the very highest incomes have been adjusted so that they correspond to those contained in the Survey of Personal Incomes (SPI).
- (iv) All incomes and expenditures are expressed in terms of January 1995 prices. This means that all changes described are in real terms, after the effects of inflation have been stripped out.
- (v) Results for expenditure are expressed both including and excluding housing costs, and results for income are expressed both before and after housing costs have been deducted. The issue of whether to include housing costs in income, or whether to express income and expenditure net of housing costs is one discussed fully elsewhere (see Johnson and Webb (1992). The arguments are ones which apply equally to expenditure measures as to income.)

In the analysis which follows, expenditure including housing costs is always compared to income before housing costs have been deducted. These two measures are described as ‘BHC’ for brevity; similarly expenditure excluding housing costs is always compared to income after the deduction of housing costs, and the two measures are referred to as ‘AHC’.

### 3 The Distribution of Expenditure, 1979-1992

#### 3.1 The Overall Distribution

This section finds that the distribution of expenditure has widened considerably since the mid-1980s, but not to the same extent as the distribution of income.

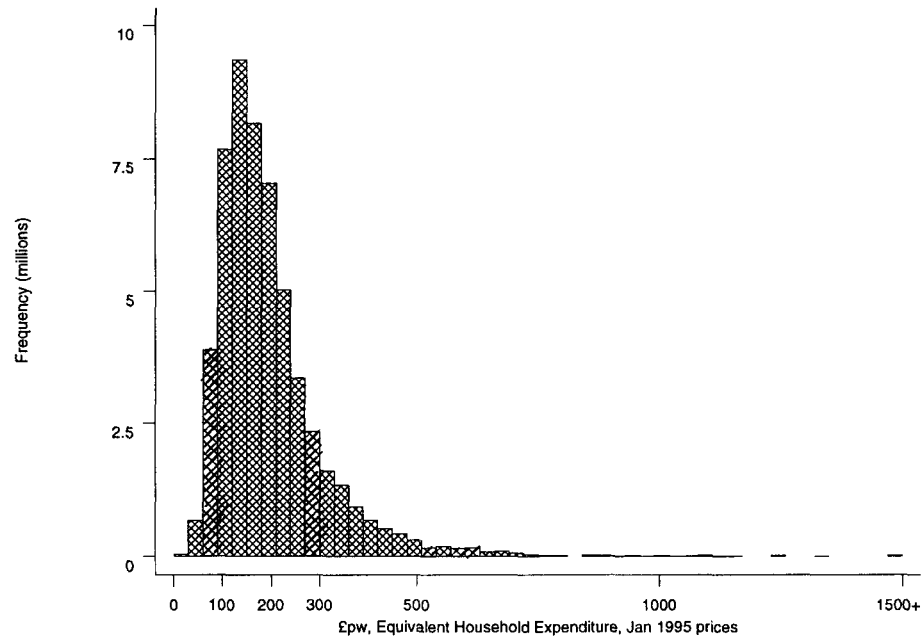
Figures 3.1 and 3.2 show the entire distribution of expenditure in 1979 and in 1992, by graphing the number of individuals falling into different bands of expenditure. Each expenditure band represents approximately £30. Expenditure here is measured including housing costs, and expressed in January 1995 prices so that the effects of inflation have been stripped out. The distribution is clearly more unequal in 1992 than it was in 1979. This is apparent from the following features of the two graphs:

- (i) more individuals are clustered into fewer expenditure bands in 1979 as compared to 1992; as many as 9 million people lived in households whose expenditure was about £150 per week in 1979, and more than 7.5 million people were clustered into expenditure bands either side of this; in 1992 less than 7.5 million were grouped into any one band.
- (ii) the tail of the distribution is much longer in 1992 than it was in 1979, indicating that in 1992 there are more households with higher expenditure compared to 13 years previously.

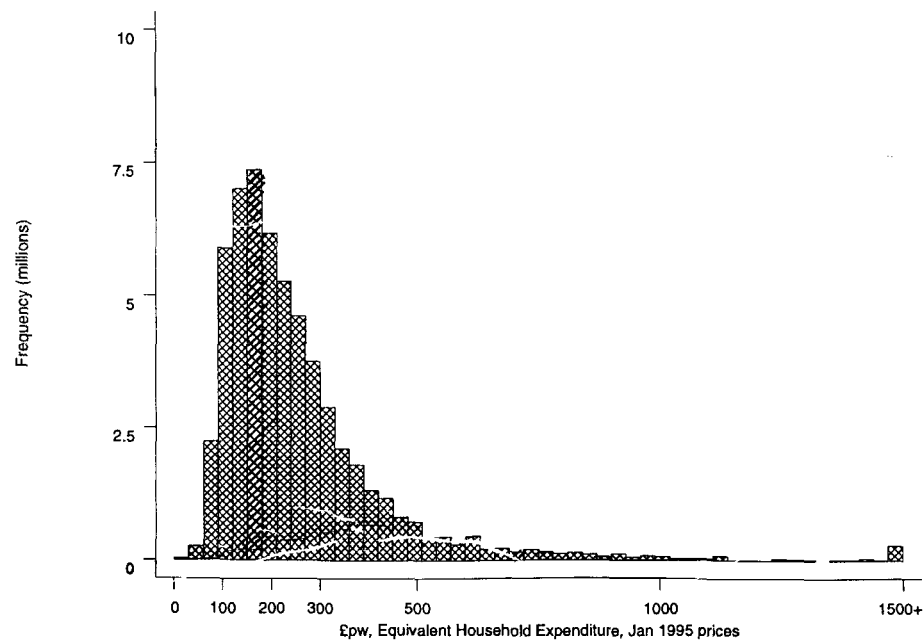
The growth in inequality of expenditure can be quantified by means of a widely-used measure of inequality: the Gini coefficient. The Gini coefficient ranges between 0 and 1, rising with rising inequality. The Gini coefficient is also used to measure income inequality, so that changes in the distribution of income and the distribution of expenditure can be compared.

Figure 3.3 shows how the Gini coefficients for income and expenditure have changed between 1979-1992. The results are presented for BHC income and expenditure. The Gini coefficient for the expenditure distribution was higher than for the income distribution in the early 1980s, but by the early 1990s the Gini coefficients for the two distributions were at about the same level. This shows that whilst expenditure inequality between households grew over the 1980s, income inequality grew faster.

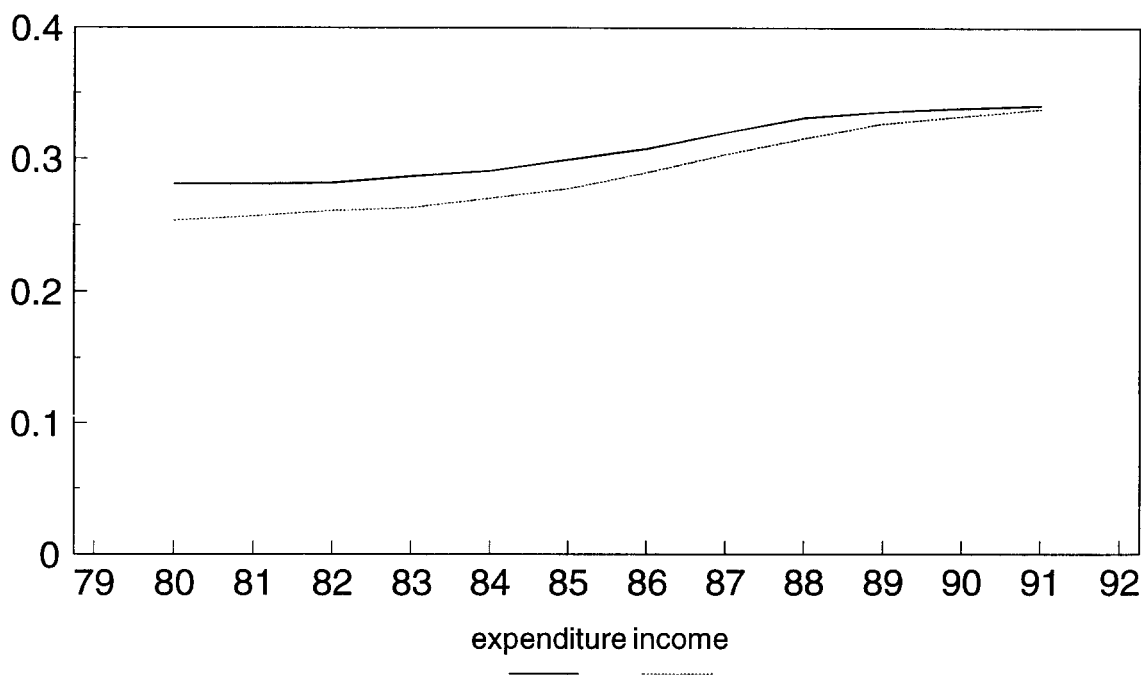
**Figure 3.1**  
**The UK Expenditure Distribution**  
**(BHC)**  
**1979**



**Figure 3.2**  
**The UK Expenditure Distribution**  
**(BHC)**  
**1992**



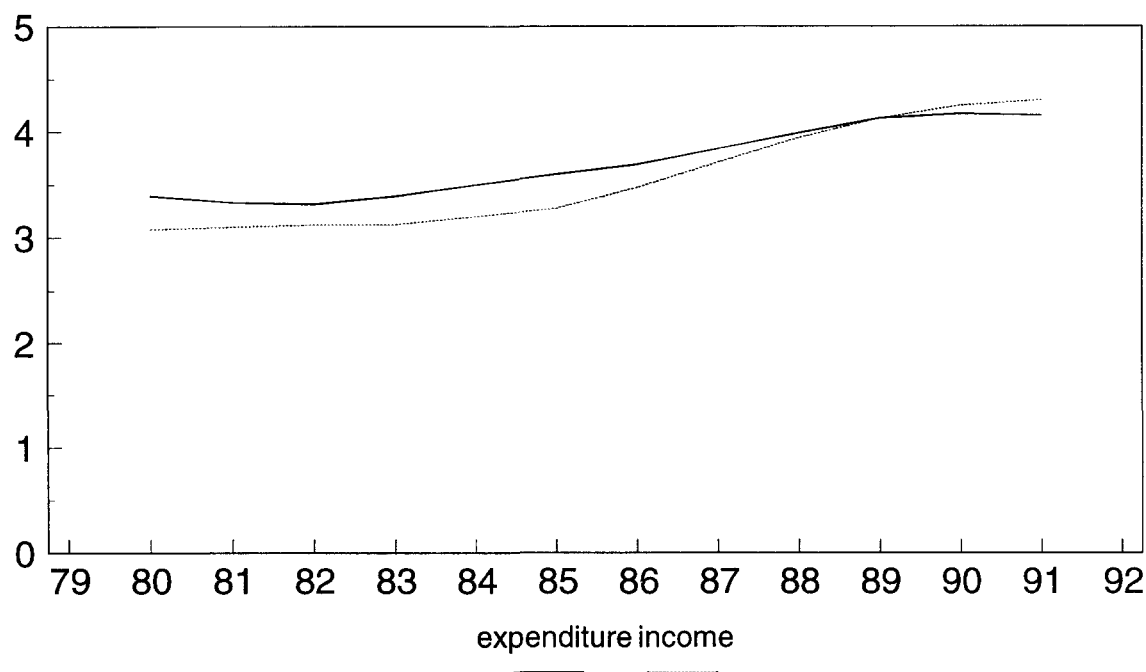
**Figure 3.3**  
**The Gini Coefficient for Income and Expenditure (BHC)**  
**(three year moving average)**  
**1979-1992**



Another way of measuring the degree of inequality in the distribution of expenditure is to compare the expenditure level of a household near the top of the distribution to the expenditure of a household near the bottom of the distribution. In order to do this, we have drawn the "90/10" ratio. This is the ratio of the expenditure of a household which is 10% from the top of the distribution (known as the 90th percentile) to the expenditure of a household which is 10% from the bottom of the distribution (the 10th percentile). Again this can be compared with the "90/10" ratio for the income distribution. Both of these ratios are illustrated in Figure 3.4.

The gap between the "richest" and "poorest" in terms of both income and expenditure widened over the period. But the picture which emerges from these ratios is that on this measure income inequality in fact overtakes expenditure inequality by the early part of the 1990s. At the start of the period, the household at the 90th percentile by expenditure had spending about 3½ times as high as the 10th percentile household, whereas the 90th percentile by income had income which was only about three times as high as the 10th percentile. By the end of the period both ratios had risen to more than four, but the "90/10" ratio for income was in fact slightly higher than that for expenditure.

**Figure 3.4**  
**The "90/10" Ratio for Income and Expenditure (BHC)**  
**(three year moving average)**  
**1979-1992**



### 3.2 Changes in Expenditure Levels

This section looks at how the levels of household expenditure have changed over the period 1979-1992, and compares this to the changes which have taken place in households' incomes.

Figure 3.5 shows the mean household expenditure including and excluding housing costs. As can be seen from this figure, expenditure (both including and excluding housing costs) fell slightly in real terms between 1979 and 1982, rose steadily over the 1980s, this growth slowing over the early 1990s. Overall growth in real mean expenditure including housing costs between 1979 and 1992 was 34%, and excluding housing costs this growth was 33%. The percentage changes in expenditure described in this section are summarised in Table 3.

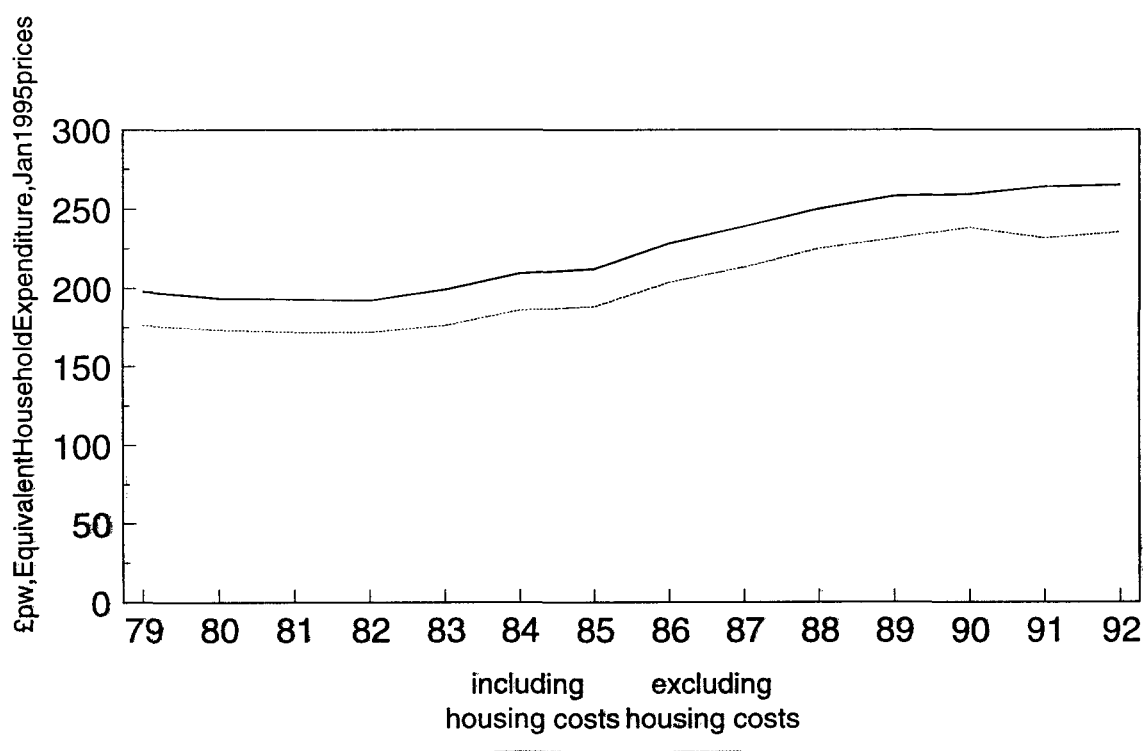


**Table 3**  
**Percentage Change in Real Equivalent Household Expenditure,**  
**1979-1992**

	Expenditure BHC	Income BHC	Expenditure AHC	Income AHC
Mean	34	37	33	36
5th percentile	17	1	14	-18
Median	22	26	25	25
95th percentile	46	58	45	61

Note: the percentage changes in the 5th percentile, median and 95th percentile quoted for each measure are based on a ranking for that measure.

**Figure 3.5**  
**Mean Household Expenditure**  
**1979-1992**



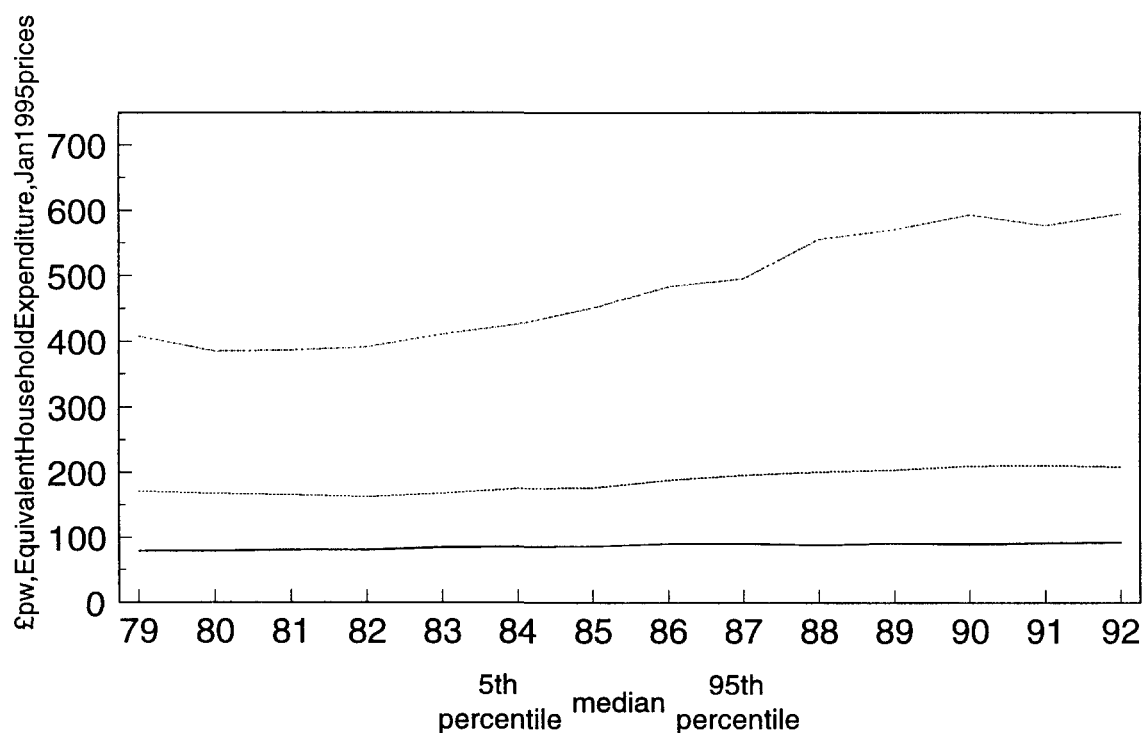
The trend in the mean conceals wide variations across the expenditure distribution. In order to assess changes which have taken place at different parts of the expenditure distribution, individuals in the population are ranked according their household spending and divided into ten groups of equal size,

known as *decile groups*. The bottom decile group contains the tenth of individuals with the lowest household spending, whilst the top (tenth) decile group contains the highest spenders in the country.

The expenditure of the bottom decile group can be summarized by the spending level of the household directly in the middle of this group<sup>8</sup>. This household is known as the 5th percentile. The corresponding household in the middle of the top decile group is known as the 95th percentile. The household with expenditure directly in the middle of the entire population is known as the median, or the 50th percentile household.

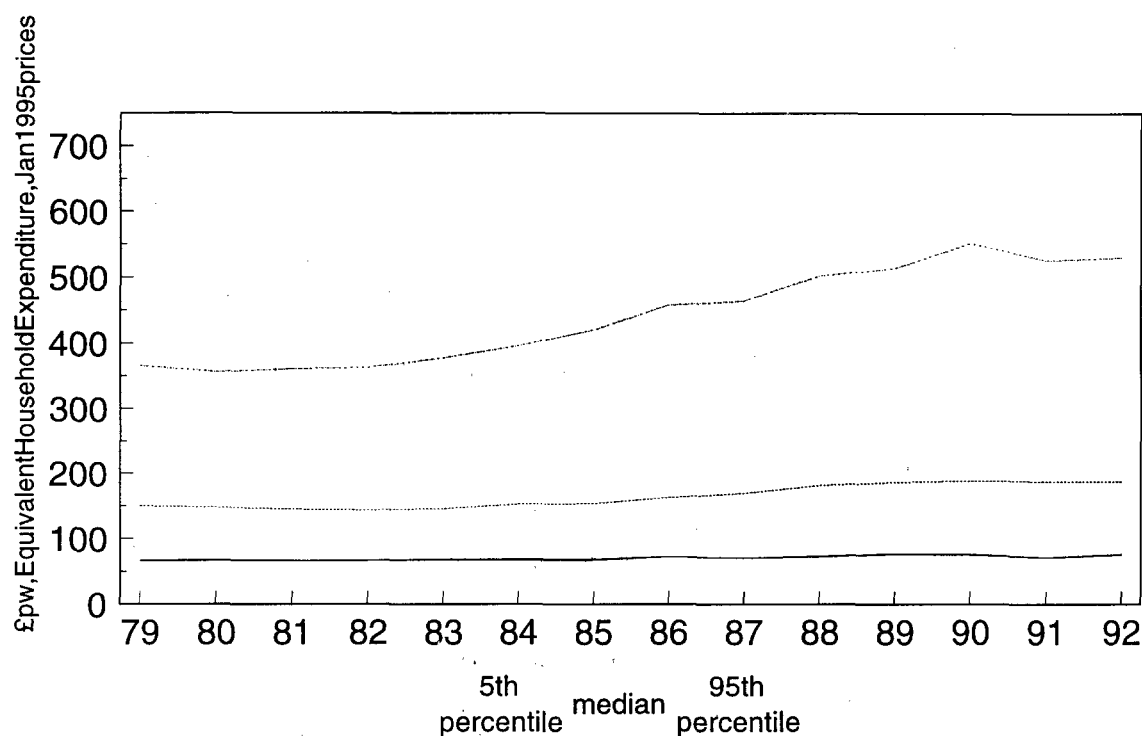
Figures 3.6 and 3.7 show how the expenditure of the 5th, 50th and 95th percentile households have changed between 1979 and 1992. The expenditure of the 95th percentile grew faster over the 1980s than did the expenditure of the median household, which in turn grew faster than the expenditure of the 5th percentile, for expenditure both including and excluding housing costs, illustrating again that expenditure inequality has risen.

**Figure 3.6**  
**5th, 50th, and 95th Percentiles of Household Expenditure (BHC),**  
**1979-1992**



<sup>8</sup> More accurately it is the household spending of the *individual* directly in the middle of the group which is used to summarize the spending of that group. For brevity we refer simply to the household in the middle of the group.

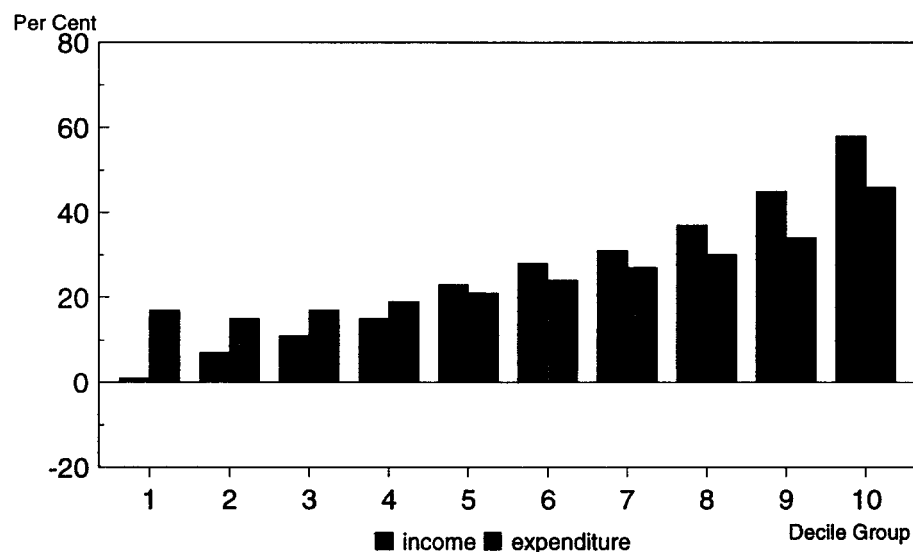
**Figure 3.7**  
**5th, 50th, and 95th Percentiles of Household Expenditure (AHC),**  
**1979-1992**



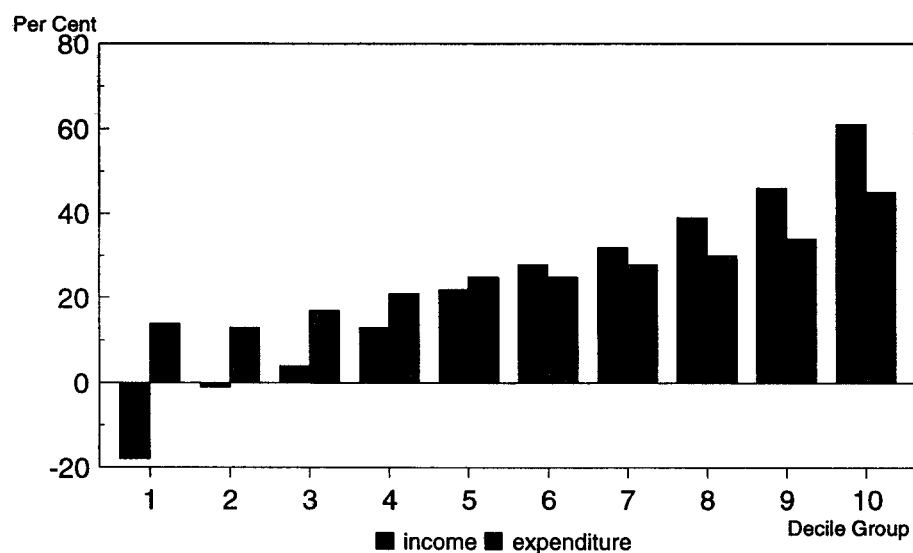
These changes in household expenditure at different parts of the expenditure distribution differ from those in income in several important respects. If each individual is ranked not by their household expenditure but by their income, and the population is again divided into ten equally sized groups, the changes which have taken place at different parts of the income distribution look considerably different.

Figures 3.8 and 3.9 compare the percentage changes in expenditure for each decile group of the expenditure distribution to the corresponding changes in income for each decile group of the income distribution between 1979 and 1992. Whilst the *income* of the 5th percentile stagnated between 1979 and 1992 if income is measured before housing costs, and actually fell by 18% where income is after housing costs, the expenditure of the 5th percentile grew over the same period. The expenditure of the 5th percentile by expenditure grew by 17% between 1979 and 1992 where housing costs are included, and by 14% excluding housing costs. Thus the often quoted result that the "poor got poorer" over the 1980s is not upheld if expenditure is chosen as the measure of living standards.

**Figure 3.8**  
**Changes in Expenditure Across the Expenditure Distribution**  
**and in Income Across the Income Distribution (BHC)**  
**1979-1992**



**Figure 3.9**  
**Changes in Expenditure Across the Expenditure Distribution**  
**and in Income Across the Income Distribution (AHC)**  
**1979-1992**



The cost of living rose slightly faster for richer households than it did for poorer households between 1979 and 1992 (see Crawford, 1994). This means that the growth in the expenditure of the 5th percentile has not arisen because poorer households have to spend more now than in 1979 to buy the same bundle of goods. Taking into account differential rates of inflation for richer and poorer households would in fact result in slightly higher real expenditure and income growth for the bottom of the distributions, and slightly lower real growth at the top of the distributions.

The overall pattern which emerges from Figure 3.8 is that the bottom four decile groups of expenditure saw higher expenditure growth over the period than the growth in income for the bottom four decile groups by income. But for the remaining top six decile groups, income growth was faster than expenditure growth. The differential becomes more marked as we move up the two distributions. The rise in the income of the richest has been considerably larger than the rise in the expenditure of the highest spending on both definitions.

## 4 The Composition of the Lowest Spending Groups

In the last section, we looked at the changing distribution of household expenditure, and at how the expenditure levels of households at different parts of the distribution have changed over time. We drew some sharp contrasts with the changes which have taken place in the distribution of income. In this section we look at the sorts of people who are to be found amongst the lowest spenders, and at how this has changed over time. We find that the composition of the "expenditure poor" group is rather different to the composition of the lowest income group.

The population has been divided into family type and economic status categories, the definition of each of which is provided in the relevant section below. Each household is divided up into benefit units, consisting of a single adult or married (or cohabiting) couple, plus any dependent children. A household can consist of one or more of such benefit units. The family type and economic status of each individual is then determined by the characteristics of the benefit unit of which he or she is a part.

There appears to be little significant difference between the lowest spenders on the measures of expenditure which include and exclude housing costs, and so the analysis which follows concentrates on BHC expenditure and income (unless otherwise specified).

### 4.1 Family Type

The population is divided into six family type groups, depending upon whether the head of the benefit unit is married (or cohabiting) or single, with or without dependent children, and above or below the state pension age. The six categories are as follows:

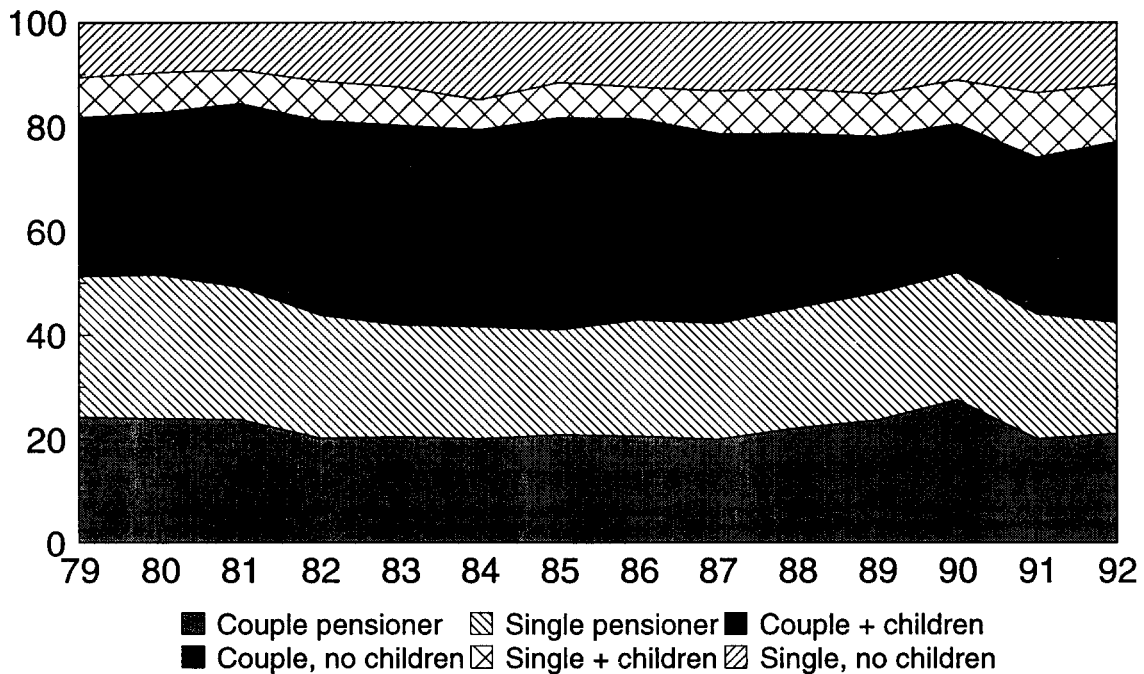
- Pensioner couple
- Single pensioner
- Couple with children
- Couple with no children
- Single person with children
- Single person with no children

The composition of the bottom tenth of spenders in terms of family type has remained relatively stable over the 1980s. This is illustrated in Figure 4.1, which shows the family type composition of the bottom expenditure decile group. Pensioners are the largest group in the bottom tenth of spenders. In 1979 and over the first few years of the 1980s they accounted for about half of the bottom expenditure decile group. Over the eighties this proportion dropped somewhat, but by 1992 pensioners still made up about 40% of the bottom expenditure decile group.

This relative stability in the composition of the lowest spenders contrasts sharply with the changing composition of the bottom income decile group over the 1980s. Pensioners made up almost 40% of the bottom BHC income decile in 1979, but this number dropped to only about 17% in 1992. The result is even more marked for the bottom income decile if income is measured after housing costs. Pensioners made up only about 8% of the bottom AHC income decile group in 1992, but made up about 40% of the bottom excluding housing costs expenditure decile group.

What this shows is that the improvement in the position of pensioners over the 1980s relative to other groups is much less pronounced when living standards are measured by expenditure rather than income.

**Fig 4.1**  
**The Composition of the Bottom Expenditure Decile Group,**  
**Including Housing Costs,**  
**1979-1992**



Note: The jump in the proportion of pensioners in the bottom expenditure decile group in 1990 appears to reflect a discontinuity in the data rather than a genuine trend.

Looking at the composition of the bottom decile group takes no account of how over- or under represented these groups are at the bottom of the distribution relative to their size in the total population. Pensioner couples, single pensioners and lone parents are over-represented at the bottom of the distribution throughout the whole period (i.e they make up a higher proportion of the bottom expenditure decile group than they do of the total population), whereas couples with children, and childless non-pensioners (couples without children and single people without children) are under-represented.

## 4.2 Economic Status

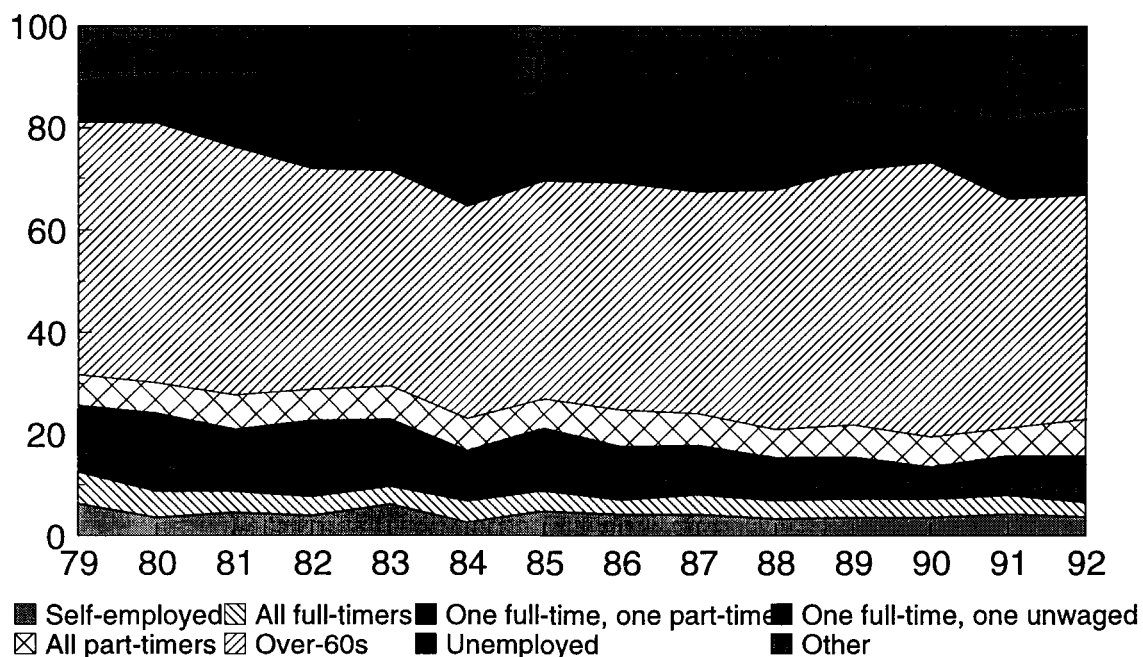
There are eight different economic status categories, which are determined by the economic activity of the adults in the benefit unit. The different categories are as follows:

- At least one in full-time self-employment
- All in full-time employment
- One in full-time employment, one in part-time employment
- One in full-time employment, one not working
- At least one in part-time employment and none in full-time work
- At least one aged 60 or over and none in work
- At least one unemployed and none in work
- Other (incl. those not seeking work eg. lone parents, disabled, students)

Figure 4.2 shows the composition of the lowest tenth of spenders by economic status. Again the pattern over time is relatively stable compared to the changes which have taken place in the composition of the bottom decile group of income. The largest single group is the "over 60" category which took up about half of the bottom decile in 1979, falling to about 40% by 1992. The other major groups at the bottom of the expenditure distribution are the unemployed and "other" category. The full time self-employed make up only about 4% of the bottom expenditure decile, and this is steady throughout the period. By contrast in 1992 the full-time self employed make up around 13% of the bottom income decile (BHC), and the over 60 category make up only 19%.



**Fig 4.2**  
**The Composition of the Bottom Expenditure Decile Group,**  
**by Economic Status**  
**1979-1992**



Looking at the under- or over-representation of these economic status groups in the bottom decile group of expenditure shows that the full-time self-employed have been under-represented amongst the lowest spenders since the early 1980s, whereas they are over-represented in the bottom decile of income (see Goodman, Johnson and Webb, 1994). This indicates that income may overstate the extent to which the self-employed in particular are poor. The other groups to be under-represented at the bottom are all those containing a full-time worker. The unemployed and "other" group are strongly over-represented at the bottom.

## 5 The Expenditure of Low Income Households, 1979-1992

The last chapter found that the characteristics of families who are the poorest by income have become increasingly different from those who are poorest by expenditure, indicating that the "expenditure poor" and the "income poor" are often not the same people at all.

Only about one third of those who are in the bottom income decile group are to be found in the lowest tenth of spenders. Of the remaining two-thirds, many are to be found just slightly higher up, in the second expenditure decile group, and almost all are in the bottom half of spenders. There are a small number whose expenditure is extremely high. In 1992 2% of those in the bottom income decile group were to be found in the top tenth of spenders.

This mismatch between households' ranking in the expenditure and income distributions is not specific to low income households. It is also the case that a large proportion of those on the highest incomes are not found amongst the very highest spenders, and households in the middle of the income distribution are also to be found at either end of the expenditure distribution. This provides evidence that there may be considerable consumption smoothing by means of saving, borrowing and dis-saving going on right across the income distribution<sup>9</sup>.

Nor is this difference in expenditure and income ranking a new phenomenon; throughout the whole period of the study there has been a significant proportion of the lowest income decile group in each year who are found considerably higher up in the expenditure distribution, and others with higher incomes to be found lower down. Table 5.1 shows the proportion of the bottom decile group by BHC income falling into the bottom decile, bottom quintile and bottom half of expenditure in each year between 1979 and 1992.

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<sup>9</sup> It also may provide evidence that measured expenditure is "lumpy" because of infrequent or irregular purchases.

**Table 5.1**  
**The Proportion of the Bottom Income Decile (BHC) falling into Various Expenditure Groups**

Year	Bottom Decile of Expenditure Per Cent	Bottom Quintile of Expenditure Per Cent	Bottom Half of Expenditure Per Cent
1979	39	61	85
1980	39	61	88
1981	34	56	84
1982	36	59	83
1983	34	55	83
1984	39	60	85
1985	38	61	87
1986	36	55	79
1987	37	56	84
1988	42	59	83
1989	38	55	82
1990	37	58	84
1991	36	56	85
1992	32	53	81

Although there are considerable differences between the ranking of households by income and by expenditure right across the population, the lowest income households merit particular attention as the levels of expenditure of many of these households appear to be particularly high considering their position in the income distribution.

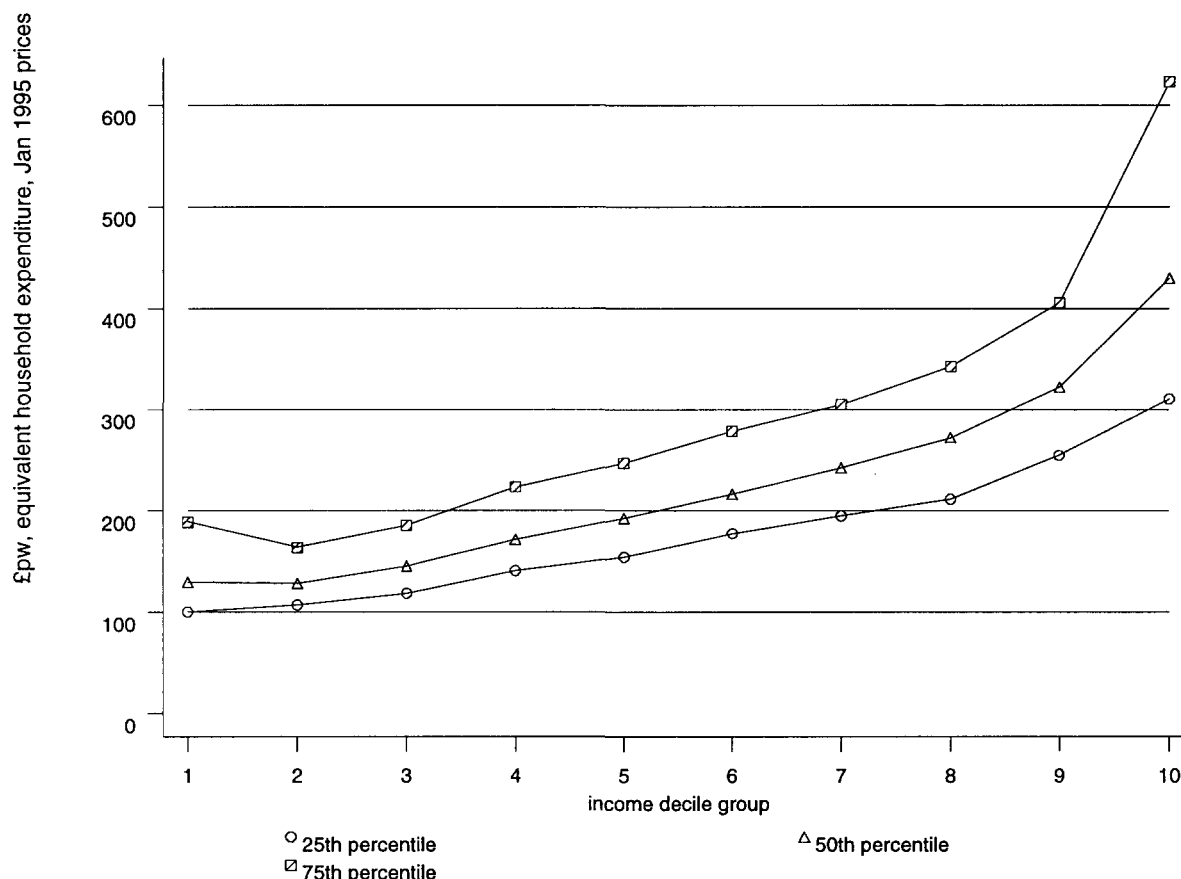
In order to illustrate this, households within each income decile group have been ranked according to their expenditure. The expenditure of three different households in each income decile group have been picked out: one with low spending for that decile group (the 25th percentile), one with spending in the middle of the group (the 50th percentile), and one with relatively high spending for the group (the 75th percentile).

Figure 5.1 shows the expenditure of these three different households within each income decile group in 1992. Across the income distribution, the highest spenders in each income decile group in fact have higher spending than the lowest spenders in the income decile group directly above (except of course in the top decile group, since there is no group with higher income). This provides evidence that there are considerable differences in expenditure levels within and between income decile groups, and that the measured expenditure of all households does not rise progressively with income.

But as can be seen in Figure 5.1, the bottom decile group looks different from the other decile groups. The highest spenders in the bottom decile group have *higher* expenditure than the highest spenders in the second decile group, and the middle-spending households have higher expenditure than the middle-spending households of the second decile group. It is only the lowest of spenders in the bottom income decile group who spend less than the lowest spenders in the decile group above. If income and expenditure are measured after housing costs, even the lowest spending in the bottom income decile group have higher expenditure than their counterparts in the second income decile group. The bottom income decile group is the only one which displays this pattern.

Whereas in almost every year between 1979 and 1992 the bottom income decile group has always been unusual in that highest spenders amongst this group have relatively high spending compared to the income decile group above, this has not always been a phenomenon spread across the decile group to the same extent as the data for 1992 suggests. This is illustrated by Figure 5.2 which shows the quartiles of expenditure by decile group of income in 1979. As can be seen in this Figure, it is only the top spenders in the bottom income decile in 1979 who have higher spending than their counterparts in the income decile group above.

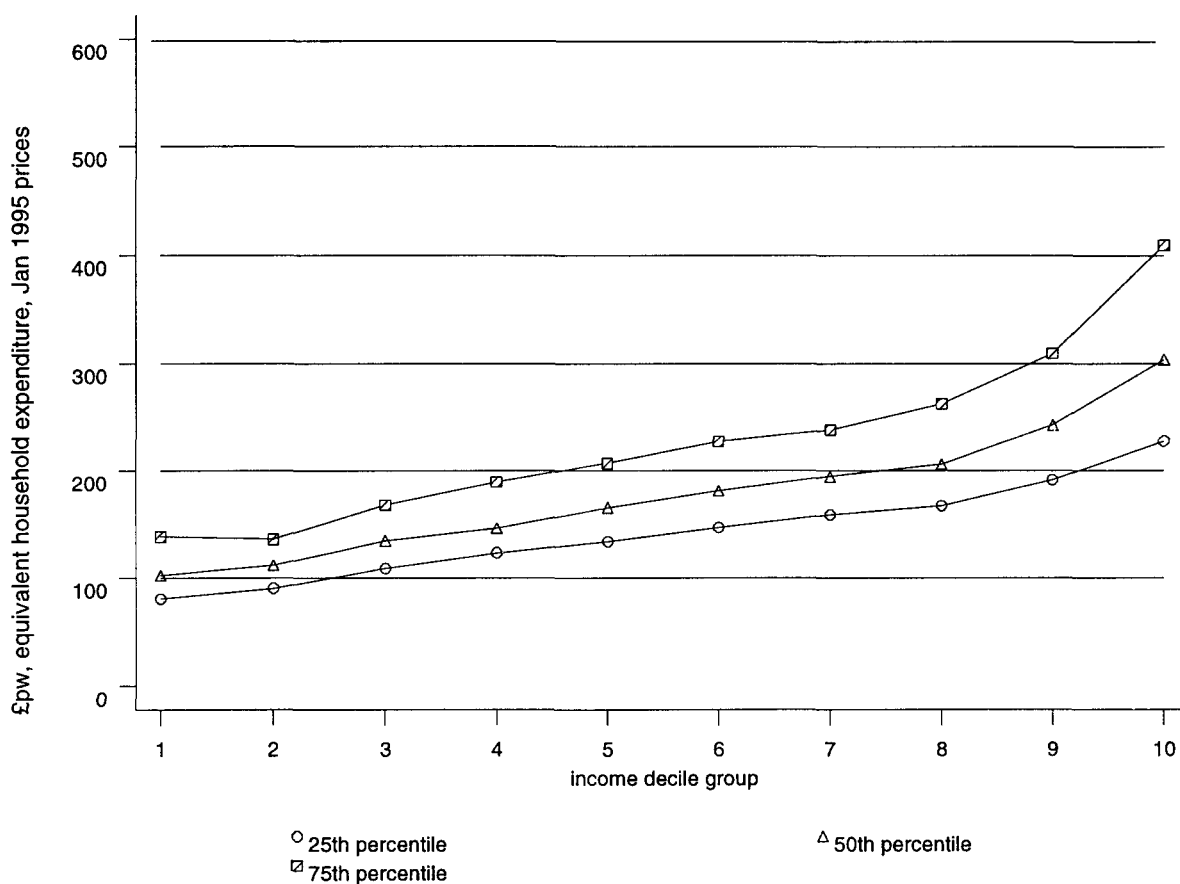
**Figure 5.1**  
**Quartiles of Expenditure (including housing costs)**  
**within Decile Groups of Income (BHC),**  
**1992**



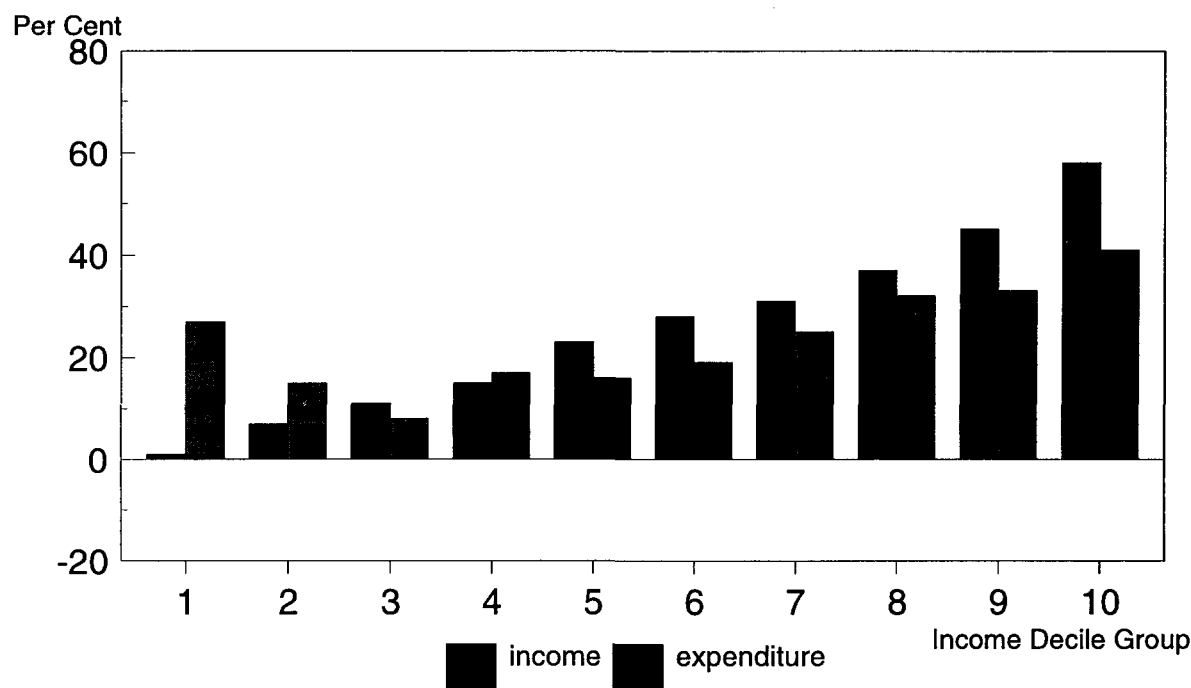
Average levels of spending in all *income* decile groups have grown in real terms since 1979. Figures 5.3 and 5.4 show the growth in the average expenditure (represented by the middle-spending household) of each income decile group between 1979-1992, comparing this with the income change for that same group.

The average expenditure of the lowest income decile group in 1992 was 27% higher than the corresponding expenditure of the lowest income decile group (BHC) in 1979 and 30% higher for AHC income and expenditure. This growth in expenditure at the bottom of the income distribution is startling when juxtaposed to the income changes for the same groups. The average growth in expenditure amongst the income decile groups just above the bottom is considerably lower.

**Figure 5.2**  
**Quartiles of Expenditure within Decile Groups of Income (BHC),**  
**1979**



**Figure 5.3**  
**Changes in Income and Expenditure (BHC)**  
**Across the Income Distribution**  
**1979-1992**



There are two separate factors which might explain the growing numbers of people on low incomes with relatively high expenditure. The first concerns changes in the sorts of people who are on low incomes, and the second concerns changes in the way that people who have low incomes spend in relation to their incomes.

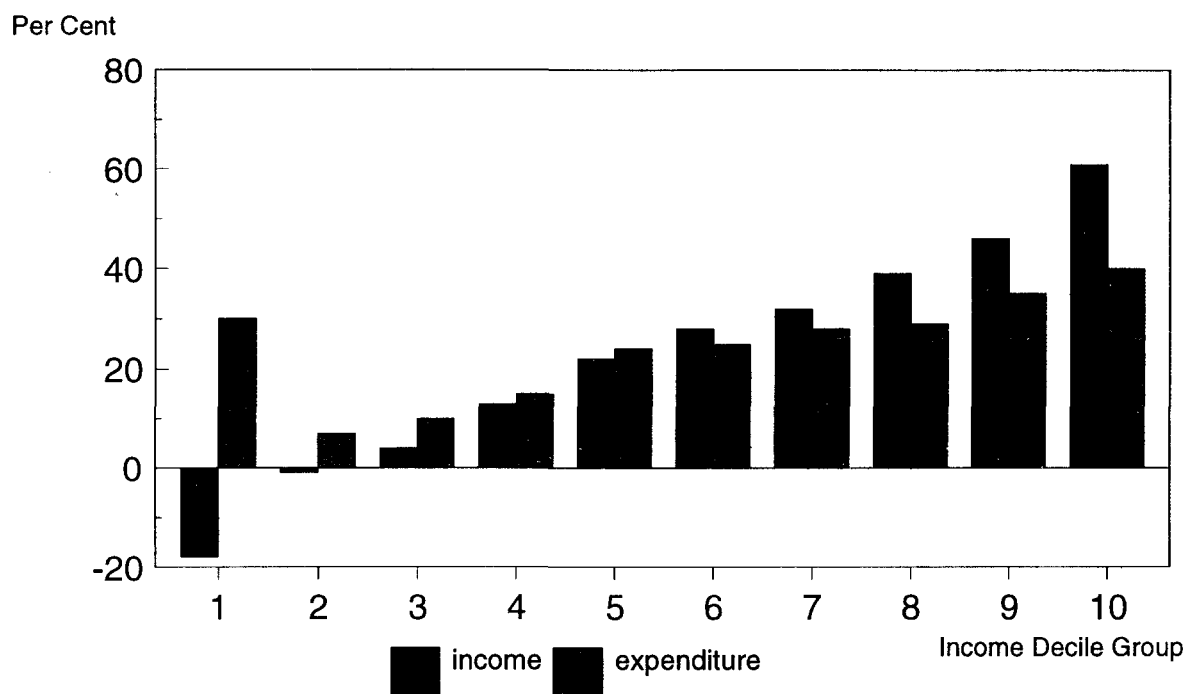
It is clear that a large part of the explanation must come from the first of these: namely the dramatic changes which have taken place over the 1980s in the composition of the lowest income groups. One reason why the expenditure growth of the second and third income decile groups is so much lower than that of the bottom is because the emergence of a so-called "new poor" over the 1980s has meant that pensioners have been displaced at the bottom of the income distribution.

Pensioners on average have considerably lower expenditure than non-pensioners throughout the period in question<sup>10</sup>. This is illustrated in Figure 5.5, which shows the mean expenditure of the pensioner population as compared to the non-pensioner population. The rising relative position of pensioners in terms of income, but not

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<sup>10</sup> This is also found by Hancock and Smeaton (1995). Pensioners as a group tend to save from their incomes rather than dis-save (see Banks, Blundell and Tanner, 1995).

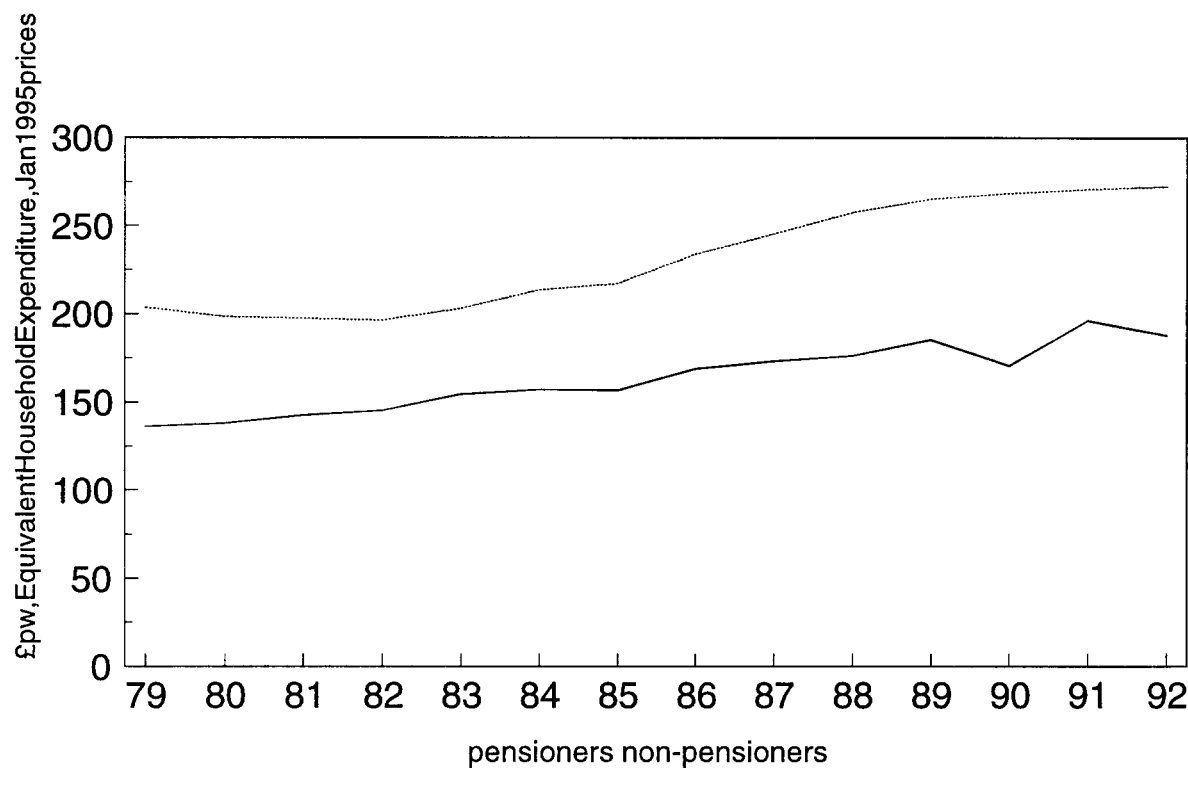
**Figure 5.4**  
**Changes in Income and Expenditure (AHC)**  
**Across the Income Distribution**  
**1979-1992**



in terms of expenditure appears to be a key reason why expenditure at the bottom of the income distribution is higher and has grown more than the expenditure of higher income groups.



**Fig 5.5**  
**Mean Expenditure of Pensioners vs. Non-Pensioners**  
**(including housing costs)**  
**1979-1992**



Note: The dip in mean pensioner expenditure in 1990 appears to reflect a discontinuity in the data, as in Figure 4.1

The growth in self-employment is another reason why expenditure is so much higher amongst the lowest income group in 1992 as compared to 1979. The expenditure growth of the bottom income decile group is lower if the self-employed are excluded from the analysis altogether, but is still about 24% (including and excluding housing costs).

The number of unemployed people at the bottom of the income distribution rose sharply over the 1980s, and this might be thought to have played a part in driving the observed trend. In particular, those recently made unemployed might be expected to have relatively high expenditure, especially if they expect their spell of unemployment to be short. There seems little evidence to suggest however that a significant number of the unemployed in the bottom income decile are amongst the highest spending in the bottom decile group.

The conclusion to be drawn from the above is that it is not just the changing composition of the lowest income group which is driving this trend towards higher spenders in the lowest income group, but also a change in the way in which even similar sorts of people spend relative to their incomes.

This change in the way certain low income groups spend in relation to their income does *not* appear in our data to be driven by a growth in credit expenditure. One indication that households on low incomes were increasingly spending beyond their current incomes would be if the use of credit expenditure had grown amongst the bottom income group. This is not borne out in the data however. Although there has been some growth in spending through loans, hire purchase, store cards and credit cards, both throughout the population and amongst the bottom income decile group, this growth is not disproportionate to the growth in expenditure as a whole. Whereas about 30% of the bottom income decile group reported some credit expenditure in the early part of the period, this had only risen to about 35% by the early 1990s. The proportion of the overall expenditure of these households taken up by credit expenditure remained fairly constant at about 10%.

### **Households Reporting Zero or Negative Incomes**

Households with the very lowest incomes of all, i.e. those showing zero or negative incomes, tend to have high expenditure, not only relative to those with slightly higher incomes, but also relative to the population as a whole. The expenditure levels of these households indicate that for many income is not giving an accurate picture of current living standards at all.

The number of such households has grown markedly over the 1980s. In 1979 and for many of the years over the 1980s there have only been about 20 FES households with BHC income set to zero<sup>11</sup>, representing about 12,000 individuals in the UK population. Conclusions drawn about any subset of these households will clearly not be robust to sampling error. There are more households who report negative AHC incomes, and so results about the expenditure of these may be more firmly founded.

Those on zero or negative incomes are often to be found amongst the higher spenders. Bearing in mind the reservations expressed as to the interpretation of results, Table 5.2 shows the proportion of households with zero or negative AHC incomes falling into the *top* half of the expenditure distribution in each year. In some years more than half of these very low income households are in the top half of spenders.

Table 5.2 also shows the ratio of the median expenditure of those on zero or negative AHC incomes to the median expenditure of the population as a whole. These ratios are rather erratic from year to year, but in all years the average expenditure of these low income households is very high, considering that they are reporting negative income overall; in some years their average expenditure is higher than the average expenditure of the population as a whole.

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<sup>11</sup> Negative reported BHC incomes are set to zero, following HBAI methodology.

**Table 5.2**  
**Individuals Reporting Negative AHC Income**

**1979-1992**

Year	Number of FES Households report- ing Negative AHC Income	Proportion in top half of Expenditure Distribution %	Ratio of median expenditure of zer- o/negative incomes to whole population median
79	26	54	1.05
80	34	27	0.79
81	41	47	1.00
82	42	40	0.92
83	46	44	0.80
84	33	58	1.12
85	41	43	0.95
86	78	64	1.18
87	59	47	0.94
88	68	58	1.15
89	86	56	1.10
90	97	53	1.03
91	77	55	1.08
92	133	48	0.98

Drawing together our findings, we have seen that there is often a considerable mismatch between rankings based on incomes and those based on expenditures and that this tendency has been present throughout the period of our analysis. Looking at the poorest households by income, we find that their expenditure has risen substantially in real terms. In part this is due to the fact that the bottom decile by income contains fewer pensioners than in 1979 and because there are more self-employed people in this group.

The number of households reporting zero or negative incomes has grown over the period 1979-1992. Many of these very low income households show high expenditure. This indicates that for these households, income may be a particularly poor measure of living standards.

## 6 Summary

1. There is no one single measure which can fully capture all aspects of households' living standards. Expenditure has the strong advantage that it allows for the fact that households may smooth consumption over time when their income is variable.
2. One of the difficulties inherent in measuring household expenditure has been that expenditure measures available have not been consistent over time. This report constructs a consistent measure in order to make valid comparisons between households appearing in the Family Expenditure Surveys of 1979-1992.
3. The expenditure distribution widened considerably between the early 1980s and the early 1990s, but this rise in inequality was not as rapid as the rise in income inequality over the 1980s.
4. The expenditure (excluding housing costs) of the bottom tenth of spenders rose by 14% over the period 1979-1992, whereas the after housing costs income of the bottom tenth of the income distribution fell by 18%.
5. Pensioners remained the largest single group amongst the lowest tenth of spenders throughout the 1980s and early 1990s; this contrasts sharply with the shift away from pensioners and towards families of working age in the lowest income group. The self employed are under-represented amongst the bottom tenth of spenders, but over-represented amongst the bottom tenth by income.
6. There are many households throughout the population who are ranked differently by expenditure than by income. A significant proportion of those in the bottom income decile group are to be found higher up in the expenditure distribution than others with higher incomes.
7. The expenditure of the poorest tenth by income is considerably higher than that of the income decile group above it. An increasing number of those in the bottom income group have shown relatively high expenditure since 1979.
8. The average expenditure of the poorest tenth by income (after housing costs) in 1992 was 30% higher than the average expenditure of the poorest tenth by income in 1979.
9. The rising position of pensioners in the income distribution but not the expenditure distribution, and the growth in self-employment are partly responsible for this trend.
10. Income is a particularly poor indicator of living standards for households reporting negative incomes. In some years, these households have shown expenditure which is higher than that of the average expenditure of the population as a whole.

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## Appendix

The Box below outlines in the methodology used to construct the measure of household expenditure, and the corrections made to make the series consistent over time.

### Box 1 The Construction of the Expenditure Measure

Total Household Expenditure (FES product code)
<i>plus</i>
HBAI Gross Housing Costs plus DIY and Repair and Maintenance
<i>plus</i>
Imputed expenditure on free school meals, free milk, concessionary coal and coke, and free food from employers
<i>less</i>
Net Housing Expenditure (FES product code)
<i>less</i>
Domestic Rates and Community Charge
<i>equals</i>
<b>Total Household Expenditure Including Housing Costs</b>
(referred to in HBAI analysis as Before Housing Costs Expenditure)
<i>less</i>
HBAI Gross Housing Costs
<i>equals</i>
<b>Total Household Expenditure Excluding Housing Costs</b>
(referred to in HBAI analysis as After Housing Costs Expenditure)
The expenditure measure including housing costs has been further adjusted to ensure that far as possible it is <b>consistent over time</b> . The adjustments are as follows:
Total Household Expenditure Including Housing Costs
<i>less</i>
Credit Card Expenditure divided by 2 (1979-1987)
<i>less</i>
Retrospective Recall Expenditure on central heating repairs and house maintenance, holidays, furniture (over £50), carpets (over £50), moving expenses, and moving fees
<i>plus</i>
Diary expenditures on the above items
<i>equals</i>
<b>Total Household Including Housing Costs (consistent measure)</b>
Both expenditure measures are finally equivalised using McClements equivalence scales, deflated within years to January prices, and then set to January 1995 prices using an RPI excluding local taxes index for including housing costs measures, and the Rossi Index for the excluding housing costs measure.