

The effects of taxes and benefits on household income, 1999–2000

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SUMMARY

This article examines how taxes and benefits redistribute income between various groups of households in the United Kingdom, shows where different types of households and individuals are in the income distribution and looks at the changing levels of income inequality over time.

Redistribution through taxes and benefits

Government intervention, by means of taxes and benefits, alters the incomes of households. In general, households in the top half of the distribution pay more in taxes than they receive in benefits while the reverse is true for those in the lower half. Taxes and benefits therefore tend to reduce the differences between households' incomes. Before government intervention, the top fifth of households have an average of £54,400 per year in original income (that is from sources such as earnings, occupational pensions and investments). This is around 19 times as great as the figure of £2,800 for the bottom fifth. However, after taxes and benefits, the ratio is greatly reduced to four to one.

Cash benefits play the largest part in reducing inequality. The majority of these go to households in the lower part of the distribution, with the poorest two fifths receiving 60 per cent of the total. These households typically receive around £5,000 from cash benefits, representing around two thirds of gross income for the bottom quintile group and two fifths for the next group. These proportions are even higher for retired households in this part of the distribution, with the majority of cash benefits for these households coming from contributory benefits, particularly the state pension.

Direct taxes, except for local taxes, are progressive - they take a larger proportion of income from those higher up the income distribution - therefore they also contribute to a reduction in inequality although not to the same extent as cash benefits. The proportion of gross income paid in direct tax by the top fifth of households is double that paid by the bottom fifth: 24 per cent compared with 13 per cent. For local taxes, the top quintile group pays the largest absolute amount. However, when expressed as a proportion of gross income, the impact of local taxes is higher in the lower half of the distribution.

Indirect taxes have the opposite effect to direct taxes, taking a higher proportion of income from those with lower incomes. This is partly due to the expenditure of some low income households being higher than their current incomes resulting in relatively large payments of indirect tax. In addition, some high income households channel a relatively high proportion of their income into savings and mortgage payments which do not attract indirect taxes. However the top fifth of households still pay more indirect tax in absolute terms than other households.

Households also receive benefits in kind from services provided free or at subsidised prices by government, such as health and education. The amount received falls gradually as income increases indicating that these benefits lead to a reduction in inequality.

Characteristics across the income distribution

Adults and children are not spread evenly throughout the income distribution. For example there are more children in households in the lower half of the distribution. Among adults, women appear fairly evenly across income groups while there are more men in households in the higher groups. There are also distinct patterns by household type. Households containing one adult and at least one child are concentrated in the bottom fifth while retired households, particularly those containing only one woman, are over-represented in the bottom two quintile groups.

The higher income groups are characterised by households with more economically active people than those lower down the income distribution. Two adult households with no children are also over-represented towards the top.

Trends in income inequality

Inequality of disposable income was fairly stable in the first half of the 1980s. This was followed by a period where it increased rapidly, reaching a peak around 1990. Inequality then fell slightly in the first half of the 1990s, although the fall only reversed a small part of the rise seen in the previous decade. However, the latest figures show that inequality of disposable income rose again in the late 1990s.

Changes in the income distribution over time have been the focus of much study. The article includes discussion of recent work which has attempted to identify some of the factors which have influenced these changes.

CONCEPTS AND SOURCES

This study examines how taxes and benefits redistribute income. It adds the value of government benefits to the private income of households and subtracts the value of taxes to look at different measures of household income.

Chart 1 shows the stages in the redistribution of income used in this analysis. Household members receive income from employment, occupational pensions, investments and other non-government sources - this is referred to as original income. The flow chart shows the various ways that government raises revenue from households through taxation and distributes benefits to them in cash and in kind.

The analysis only allocates those taxes and benefits that can reasonably be attributed to households. Therefore some government revenue and expenditure are not allocated such as revenue from corporation tax and expenditure on defence and public order. There are three main reasons for non-allocation. Some taxes and benefits fall on people who do not live in private households. In other cases there is no clear conceptual basis for allocation to particular households. Finally there may be a lack of data to enable allocation. In this study, some £234 billion of taxes and £190 billion of benefits have been allocated to households. This is equivalent to 70 per cent and 56 per cent respectively of general government expenditure, which totalled around £337 billion in 1999 (Appendix 1, Table 1).

The estimated values of taxes and benefits reflect the study methodology. They are based on assumptions about which taxes and benefits should be covered and to whom they should apply. Where it is practical, the methodology used is similar to that used in previous years. However there have been some changes in the underlying survey (the Family Expenditure Survey) and improvements in the methodology. For example changes from 1996–97 onwards include new questions for the self-employed and the use of data which are grossed up to the UK household population. Time series are presented for some measures that are relatively robust to these changes. These include the Gini coefficients and other measures of inequality in Appendix 2. Beyond these measures, the reader should be cautious about making direct comparisons with earlier studies.

The unit of analysis used in this study is the household. The households are ranked by their equivalised disposable income, which is used as a proxy for their level of welfare. Equivalisation is a standard methodology that takes into account the size and composition of households and adjusts their incomes to recognise differing demands on resources. For example, a couple would need a higher income than a single person to achieve the same standard of living and so a single person's income of £6,100 is treated as equivalent to an income of £10,000 for a couple (see Appendix 3, paragraph 46). Households with the same equivalised income do not necessarily have

the same standard of living where other characteristics are different. For example households which own their homes outright would be in a better position than identical households with the same income which had to pay rent or mortgage payments. Also households which include disabled people may require additional resources to maintain the same standard of living as those without disabled people. Equivalisation does not adjust for these differences.

Equivalised income is used only to rank the households. Most monetary values shown in the article are not equivalised. Where equivalised amounts are given, they are shown in *italics*. Once the households have been ranked, the distribution is split into five (or ten) equally sized groups - that is quintile groups (or decile groups). The bottom and second quintile groups are those with the lowest equivalised disposable incomes while the fourth and top groups have the highest.

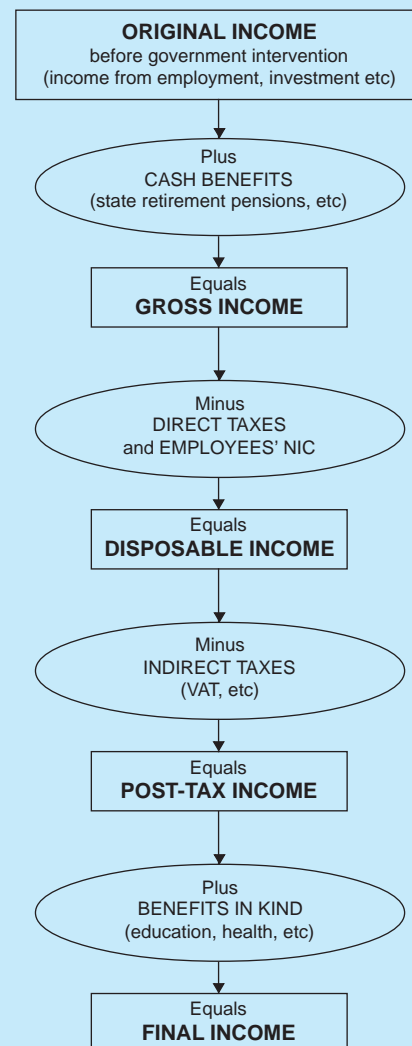
The main data source for this analysis is the Family Expenditure Survey (FES) which covers from 6,500 to 7,000 households in the United Kingdom each year. It only covers private households - people living in hotels, lodging houses and in institutions, such as old people's homes, are excluded.

The survey results are grossed up so that the totals reflect the whole household population in terms of age, sex and region. Different grossing factors are applied to different types of household in order to correct for over or under-representation of these groups in the responding sample of the FES. Studies have indicated that the FES suffers from under-representation at the very top of the income distribution. This under-representation is not directly corrected by the grossing methodology and may lead to some under-estimation of income. Readers who are interested in the level of income for the top decile group of the income distribution should refer to the Department of Social Security publication *Households Below Average Income 1998-99*¹. This series uses data from the Family Resources Survey and contains an income adjustment for households at the top of the income distribution, which is made using the Inland Revenue's Survey of Personal Incomes.

Further details of the concepts and methodology used are given in Appendix 3.

The results of the analysis are reported in three sections. The first looks at the effects for all households. However retired and non-retired households have distinct income and expenditure patterns and so the tax and benefit systems affect the two groups in very different ways. Therefore the second and third sections look separately at results for non-retired and retired households.

Chart 1
Stages of redistribution



A National Statistics Quality review of income statistics will be carried out later this year.

For further information, please contact the author.

RESULTS FOR ALL HOUSEHOLDS

Overall effect

Government intervention affects household income in various ways: money is taken through taxes, both direct and indirect, and given back in the form of cash benefits and the provision of free or subsidised services. In general, households in the bottom half of the income distribution tend to be net gainers from the tax and benefit systems while those in the top half pay more in tax than they receive in benefits. Therefore, taken as a whole, government intervention leads to income being shared more equally between households. Table A summarises the overall effects.

In this article, income before taxes and benefits is termed original income and includes income from earnings, occupational pensions and investments. The extent of inequality in this measure of income can be seen by looking at the proportion of total original income received by groups of households in different parts of the income distribution. At this stage, the richest fifth of households (those in the top quintile group) receive more than 50 per cent of all original income. This compares with only 2 per cent for households in the bottom fifth.

Adding cash benefits to original income produces gross income. In contrast to original income, the amount received from cash benefits is higher for households lower down the income distribution than for

TABLE A: Percentage shares of household income and Gini coefficients¹, 1999–2000

| | Percentage shares of equivalised income | | | |
|-----------------------------|---|--------------|-------------------|-----------------|
| | Original income | Gross income | Disposable income | Post-tax income |
| Quintile group ² | | | | |
| Bottom | 2 | 6 | 7 | 6 |
| 2nd | 7 | 11 | 12 | 11 |
| 3rd | 15 | 16 | 16 | 16 |
| 4th | 25 | 23 | 23 | 22 |
| Top | 52 | 44 | 42 | 45 |
| All households | 100 | 100 | 100 | 100 |
| Decile group ² | | | | |
| Bottom | 1 | 3 | 3 | 2 |
| Top | 33 | 28 | 27 | 29 |
| Gini coefficient (per cent) | 53 | 38 | 35 | 40 |

¹ This is a measure of the dispersion of each definition of income (see Appendix 3, paragraph 51).

² Households are ranked by equivalised disposable income.

those at the top. This has an equalising effect on the distribution, raising the share of income received by the bottom quintile group to 6 per cent of gross income, while the share of the top fifth is reduced to 44 per cent.

The tax system has a much smaller effect on income inequality. The shares of income for disposable income (that is after direct taxes) and post-tax income (after indirect taxes) for each quintile group are similar to those for gross income. The direct tax system has a small equalising effect while the indirect system reverses this.

Tables B and 2A in Appendix 1 show the effect of direct and indirect tax on each quintile and decile group in more detail. Households at the lower end of the income distribution pay smaller amounts of direct tax compared with households with higher incomes. Of the total income tax paid by all households, the bottom two quintile groups pay about 6 per cent. This compares with 81 per cent of the total paid by the top two fifths.

In addition, low income households also pay a smaller proportion of their income in income tax. This is due to the progressive nature of the income tax system. As a proportion of their gross incomes, households in the bottom quintile group typically pay 3 per cent in income tax compared with 18 per cent for those in the top quintile group.

For national insurance contributions, the amount paid as a proportion of gross income rises as income rises until the fourth quintile group; the proportion then falls for the top fifth. This is because national insurance contributions are only levied on the first £500 of weekly earnings in 1999–2000, so part of the earnings of many of those in the top quintile group will not be subject to this deduction.

Local taxes mainly consist of council tax in Great Britain and domestic rates in Northern Ireland and are shown net of council tax benefits and rates rebates in Table B. Households in the lower part of the income distribution pay smaller absolute amounts in local taxes - net payments by the bottom quintile group are typically around half of those in the top fifth. However, when expressed as a proportion of gross income, the burden decreases as income rises - local taxes represent 7 per cent of gross income for the bottom fifth but less than 2 per cent for those in the top quintile group.

Indirect taxes

The amount of indirect tax that each household pays is estimated from its expenditure recorded in the FES. However the income and expenditure data recorded in the FES are not fully compatible because they are recorded in different ways (see Appendix 3, paragraph 6). Indeed, measured expenditure exceeds measured

TABLE B: Taxes as a percentage of gross income, disposable income and expenditure for ALL households by quintile group, 1999–2000
(a) Direct and indirect taxes as a percentage of gross income
(b) Indirect taxes as a percentage of disposable income
(c) Indirect taxes as a percentage of expenditure²

| | Quintile groups of households ² | | | | | All households |
|---|--|-------------|-------------|-------------|-------------|----------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| a) Percentages of gross income | | | | | | |
| Direct taxes | | | | | | |
| Income tax | 3.1 | 6.3 | 10.1 | 13.3 | 17.8 | 13.4 |
| Employees' NIC | 1.5 | 2.8 | 4.2 | 4.9 | 3.9 | 3.9 |
| Local taxes | 6.8 | 5.0 | 3.8 | 3.0 | 1.9 | 3.1 |
| <i>All direct taxes</i> | <i>11.5</i> | <i>14.1</i> | <i>18.1</i> | <i>21.3</i> | <i>23.6</i> | <i>20.4</i> |
| Indirect taxes | | | | | | |
| VAT | 11.3 | 8.2 | 7.8 | 6.9 | 5.1 | 6.7 |
| Duty on alcohol | 1.5 | 1.1 | 1.2 | 0.9 | 0.6 | 0.9 |
| Duty on tobacco | 3.7 | 2.2 | 1.5 | 1.0 | 0.4 | 1.1 |
| Duty on hydrocarbon oils & Vehicle excise duty | 2.8 | 2.0 | 2.1 | 1.9 | 1.2 | 1.7 |
| Other indirect taxes | 10.7 | 7.7 | 6.7 | 5.9 | 4.1 | 5.7 |
| <i>All indirect taxes</i> | <i>29.9</i> | <i>21.2</i> | <i>19.3</i> | <i>16.6</i> | <i>11.5</i> | <i>16.1</i> |
| <i>All taxes</i> | <i>41.4</i> | <i>35.3</i> | <i>37.4</i> | <i>37.9</i> | <i>35.1</i> | <i>36.5</i> |
| (b) Percentages of disposable income | | | | | | |
| VAT | 12.7 | 9.5 | 9.5 | 8.8 | 6.7 | 8.4 |
| Duty on alcohol | 1.6 | 1.3 | 1.4 | 1.2 | 0.8 | 1.1 |
| Duty on tobacco | 4.2 | 2.5 | 1.8 | 1.3 | 0.5 | 1.4 |
| Duty on hydrocarbon oils and Vehicle excise duty | 4.1 | 3.1 | 3.3 | 3.1 | 2.0 | 2.8 |
| Other indirect taxes | 11.2 | 8.2 | 7.5 | 6.7 | 5.0 | 6.6 |
| <i>All indirect taxes</i> | <i>33.8</i> | <i>24.7</i> | <i>23.6</i> | <i>21.1</i> | <i>15.0</i> | <i>20.2</i> |
| (c) Percentages of expenditure² | | | | | | |
| VAT | 8.3 | 8.3 | 8.6 | 8.3 | 7.5 | 8.1 |
| Duty on alcohol | 1.1 | 1.1 | 1.3 | 1.1 | 0.9 | 1.1 |
| Duty on tobacco | 2.7 | 2.2 | 1.6 | 1.2 | 0.6 | 1.3 |
| Duty on hydrocarbon oils and Vehicle excise duty | 2.6 | 2.7 | 3.0 | 2.9 | 2.3 | 2.7 |
| Other indirect taxes | 7.3 | 7.2 | 6.7 | 6.4 | 5.6 | 6.3 |
| <i>All indirect taxes</i> | <i>22.0</i> | <i>21.5</i> | <i>21.2</i> | <i>20.0</i> | <i>16.9</i> | <i>19.5</i> |

¹ Households are ranked by equivalised disposable income.

² Calculated to be consistent with disposable income. See paragraph 34 of Appendix 3 for the definition of expenditure.

income in the lower half of the distribution. There are a number of possible explanations for this. Some households with low incomes may draw on their savings or borrow in order to finance their expenditure. In these cases, expenditure taxes are not being met from current income. Some types of receipts are not included as income in the FES, e.g. severance payments, receipts from building society demutualisations. For a minority of households, the FES may be measuring incomes inaccurately. Therefore, to give a more complete picture of the impact of indirect taxes, they are shown in Table B as a proportion of gross and disposable income and, separately, as a proportion of expenditure. In addition direct taxes are also shown as a proportion of gross income so that the impact of direct and indirect taxes can be compared. However, it should be noted that year on year comparisons between quintile groups of the impact of tax in total could be affected by the inconsistency between income and expenditure for households in the bottom half of the income distribution.

In cash terms, the top fifth of households pay around two and three quarters as much indirect tax as the bottom fifth. However, when expressed as a percentage of disposable income or expenditure, the proportion paid in indirect tax tends to be lower for households at the top of the distribution compared to those lower down.

When expressed as a proportion of disposable income, the impact of indirect taxes declines sharply as income rises. This is because those in higher income groups tend to channel a larger proportion of their income into savings and mortgage payments, which do not attract indirect taxes. Indirect taxes appear less regressive when expressed as a proportion of expenditure, with payments rising broadly in line with expenditure. However the top fifth still pay a smaller proportion of their expenditure in indirect taxation whichever measure is used.

Another way of looking at how taxes and benefits change inequality is to calculate Gini coefficients - a widely used summary measure of inequality (see Appendix 3, paragraph 51). It can take values from 0 to 100 per cent where a value of zero would indicate that each household had an equal share of income, while higher values indicate greater inequality.

The Gini coefficients (as shown in table A and table 3 of Appendix 2) produce a similar picture to the shares of income discussed earlier. For 1999–2000, the figure of 53 per cent for original income is reduced to 38 per cent for gross income by the inclusion of cash benefits - a large reduction in inequality. The coefficient for disposable income shows the equalising effect of direct taxes with the figure falling further to 35 per cent. The picture of indirect taxes reversing this effect is confirmed by the Gini coefficient rising to 40 per cent for post-tax income. The Gini coefficients for original income, gross

income, and disposable income in 1999–2000 are broadly the same as in 1998–99. Those for post-tax income reflect a real rise in inequality subject to earlier reference to the potential effect on estimates of indirect tax such as VAT of the discrepancy between income and expenditure in the lower half of the income distribution. Estimates of sampling variability for the estimates shown in Chart 4 suggest that the trend of small rises in the late 1990s in the coefficients for gross, disposable and post-tax income are real changes in inequality.

Characteristics of households

Different types of household are not spread evenly throughout the income distribution. Information about the characteristics of households in the different income groups is shown in Table C with more detail in Appendix 1, Table 2b.

Household size does not vary much across the income distribution, with an average of between 2.1 and 2.5 people per household in each decile group. However there are differences in the split between adults and children. In particular there are more children in the lower half of the income distribution: the bottom decile group has more than twice as many children as the top group. The pattern for the numbers of men and women also varies across income groups: the number of women is fairly constant while households in the higher income groups tend to have more men than the lower groups. Higher income groups also contain more economically active people, with the top fifth of households having three times as many economically active people compared to the bottom fifth.

Households with one adult and one or more children are concentrated in the lower groups: around three-quarters of these households are in the bottom two quintile groups. This group makes up the majority of lone-parent families; however some lone parents will be part of larger households and will be included in other household types. For two-adult households with children, the position in the income distribution tends to vary according to the number of children: those with three or more children tend to be in lower groups than those with only one or two. This reflects the fact that households with three or more children are less likely to have two economically active adults compared to those with fewer children. In addition, households with higher numbers of children will tend to have higher needs than smaller households; as the ranking of households is based on income adjusted for the needs of the household (i.e. equivalised income, adjusted for household size and composition) this increases the chance that households with three or more children will be found in the lower part of the income distribution. Where there are no children in the household, non-retired two adult households tend to be found in the higher income groups.

TABLE C: Summary of the effects of taxes and benefits by quintile groups for ALL households¹, 1999–2000

| | Quintile groups of households ¹ | | | | | All households |
|--|--|--------|--------|--------|--------|----------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Income, taxes and benefits per household (£ per year)² | | | | | | |
| Original income | 2 840 | 7 680 | 17 170 | 27 920 | 54 400 | 22 000 |
| plus cash benefits | 4 870 | 5 130 | 3 830 | 2 120 | 1 140 | 3 420 |
| Gross income | 7 720 | 12 810 | 21 010 | 30 040 | 55 540 | 25 420 |
| less direct taxes ³ and employees' NIC | 890 | 1 810 | 3 800 | 6 400 | 13 090 | 5 200 |
| Disposable income | 6 830 | 11 000 | 17 210 | 23 640 | 42 450 | 20 230 |
| <i>less indirect taxes</i> | 2 310 | 2 720 | 4 050 | 4 990 | 6 380 | 4 090 |
| Post-tax income | 4 520 | 8 280 | 13 160 | 18 650 | 36 060 | 16 130 |
| plus benefits in kind | 4 350 | 3 670 | 3 450 | 2 930 | 2 270 | 3 340 |
| Final income | 8 870 | 11 960 | 16 610 | 21 590 | 38 330 | 19 470 |
| Number of individuals per household | | | | | | |
| Children ⁴ | 0.7 | 0.6 | 0.6 | 0.4 | 0.4 | 0.5 |
| Adults | 1.6 | 1.6 | 1.9 | 2.0 | 1.9 | 1.8 |
| <i>Men</i> | 0.7 | 0.7 | 0.9 | 1.0 | 1.0 | 0.9 |
| <i>Women</i> | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| People | 2.3 | 2.2 | 2.5 | 2.4 | 2.2 | 2.3 |
| People in full-time education | 0.7 | 0.5 | 0.5 | 0.4 | 0.3 | 0.5 |
| Economically active people | 0.5 | 0.7 | 1.3 | 1.6 | 1.6 | 1.1 |
| Retired people | 0.5 | 0.6 | 0.4 | 0.3 | 0.2 | 0.4 |
| Household type (percentages) | | | | | | |
| Retired | 37 | 43 | 26 | 15 | 7 | 26 |
| Non-retired | | | | | | |
| 1 adult | 17 | 12 | 15 | 18 | 24 | 17 |
| 2 adults | 9 | 12 | 17 | 27 | 36 | 20 |
| 1 adult with children ⁵ | 15 | 8 | 3 | 2 | 1 | 6 |
| 2 adults with children | 15 | 17 | 23 | 21 | 20 | 19 |
| 3 or more adults ⁶ | 7 | 7 | 16 | 17 | 12 | 12 |
| All household types | 100 | 100 | 100 | 100 | 100 | 100 |

1 Households are ranked by equivalised disposable income.

2 All the tables in Part 1 of this article show unequivalised income. Equivalised income has only been used in the ranking process to produce the quintile groups (and to produce the percentage shares and Gini coefficients).

3 These are income tax (which is after tax relief at source on mortgage interest and life assurance premiums) and Council tax, domestic rates and water charges but after deducting discounts, Council tax benefits and rate rebates.

4 Children are defined as people aged under 16 or aged between 16 and 18, unmarried and receiving non-advanced further education.

5 This group is smaller than the category of 'one parent families' because some of these families will be contained in the larger household types.

6 With or without children.

Retired households are over-represented at the lower end of the distribution: more than 60 per cent are in the bottom two fifths. This over-representation is higher for one adult retired households than those with two or more adults. In addition those with one retired woman are more concentrated towards the bottom compared to those with one retired man.

Stages of redistribution

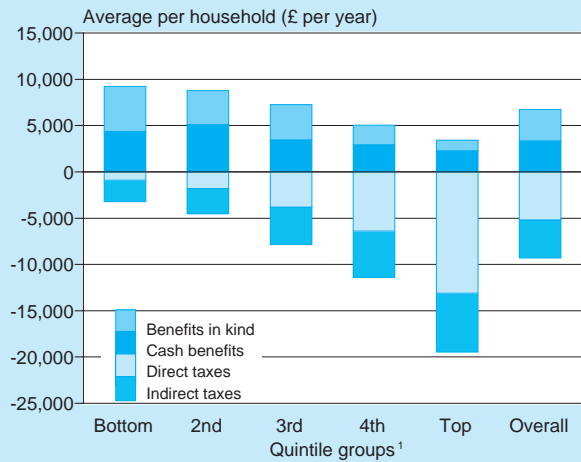
Details of the amounts which households in each quintile group receive from the various measures of income are shown in Table C with more detailed information for decile groups in Appendix 1, Table 2a.

On average households receive about £22,000 a year in original income but this varies widely between households. Those in the top quintile group have around £54,400, compared with £2,800 for the bottom fifth. This pattern is driven by differences in the numbers of economically active people and the employment status of the chief economic supporter between the groups. For example, almost nine in ten adults in the top quintile group are economically active compared with only one in three of those in the lowest. The chief economic supporters in the top fifth are predominantly full-time employees or self-employed, while those in the bottom fifth are more likely to work part-time or be unemployed or economically inactive. Those in the higher deciles tend to have better paid jobs as well as being more likely to be economically active.

Earnings from employment or self-employment are typically the most important source of income, making up over four fifths of gross

Chart 3

Summary of the effects of taxes and benefits on ALL households, 1999–2000



1 Households are ranked throughout by equivalised disposable incomes.

income on average. The proportion accounted for by earnings from self-employment has tended to increase in recent years and such earnings are more volatile. However cash benefits are also a significant source, particularly for households in the lower half of the distribution. Of the total amount of cash benefits paid, the bottom two quintile groups receive slightly less than 60 per cent. These households typically receive around £5,000 from cash benefits, representing approximately two thirds of gross income for the bottom quintile group and two fifths for the next group (Chart 2).

Higher income groups pay both higher amounts of direct tax and higher proportions of their income in direct tax (Tables C and 2A in Appendix 1). The top quintile group pays about £13,000 per household in income tax, national insurance contributions and local tax - 24 per cent of gross income. In contrast the direct tax bill for households in the bottom fifth is £890, representing 12 per cent of their gross income. Looking at income tax on its own, the top two quintile groups pay around 80 per cent of the total.

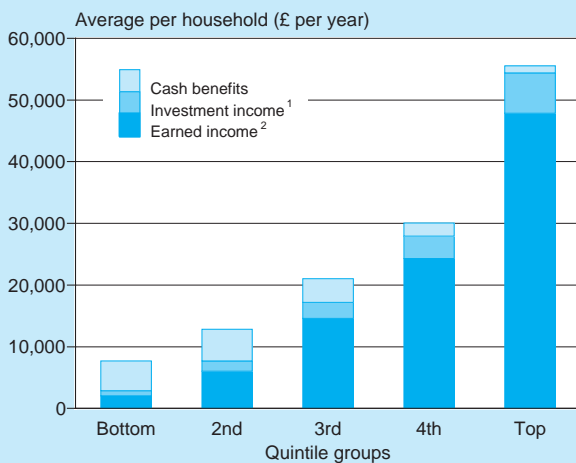
In contrast to benefits and direct taxes, the indirect tax system has a different effect: households with higher incomes still pay more in absolute terms, but not as a proportion of their incomes. This means that indirect taxes tend to increase income inequality.

The final stage in the redistribution process is the addition of benefits in kind, such as those from state education and the health service. Households in the bottom quintile group receive the equivalent of around £4,400 from these benefits, which is twice the amount received by the top fifth.

Taken as a whole, the tax and benefit systems redistribute income from high income households to those on low incomes. The average

Chart 2

Sources of gross income by quintile groups of equivalised disposable income, 1999–2000



1 Investment income includes occupational pensions and annuities.

2 Earned income includes wages and salaries, income from self-employment and income from 'fringe benefits'.

final income for the quintile groups ranges from £8,900 to £38,300; a ratio of one to four compared to a ratio of one to 19 before government intervention.

Changes in inequality over time

There are many ways of measuring income inequality. Different measures may show different trends depending on whether they are particularly sensitive to changes in one part of the distribution. Calculation of several measures of inequality allows us to see whether a particular trend is peculiar to one particular measure or backed up by others. The tables in Appendix 2 show trends for three measures of inequality. Table 1 shows trends for the shares of income figures that have already been seen for 1999–2000 earlier in this article. Table 2 contains time series for Gini coefficients. Table 3 shows another concept: using the ratio of the incomes at two points in the distribution. Two such measures are calculated: the ratio of the disposable income at the 90th percentile compared to the 10th (P90/P10); and the ratio of the 75th percentile to the 25th (P75/P25). (The 90th percentile is the income below which nine out of ten households lie.) An advantage of this measure is that it is not affected by extreme values at either end of the distribution, which may be inaccurately measured.

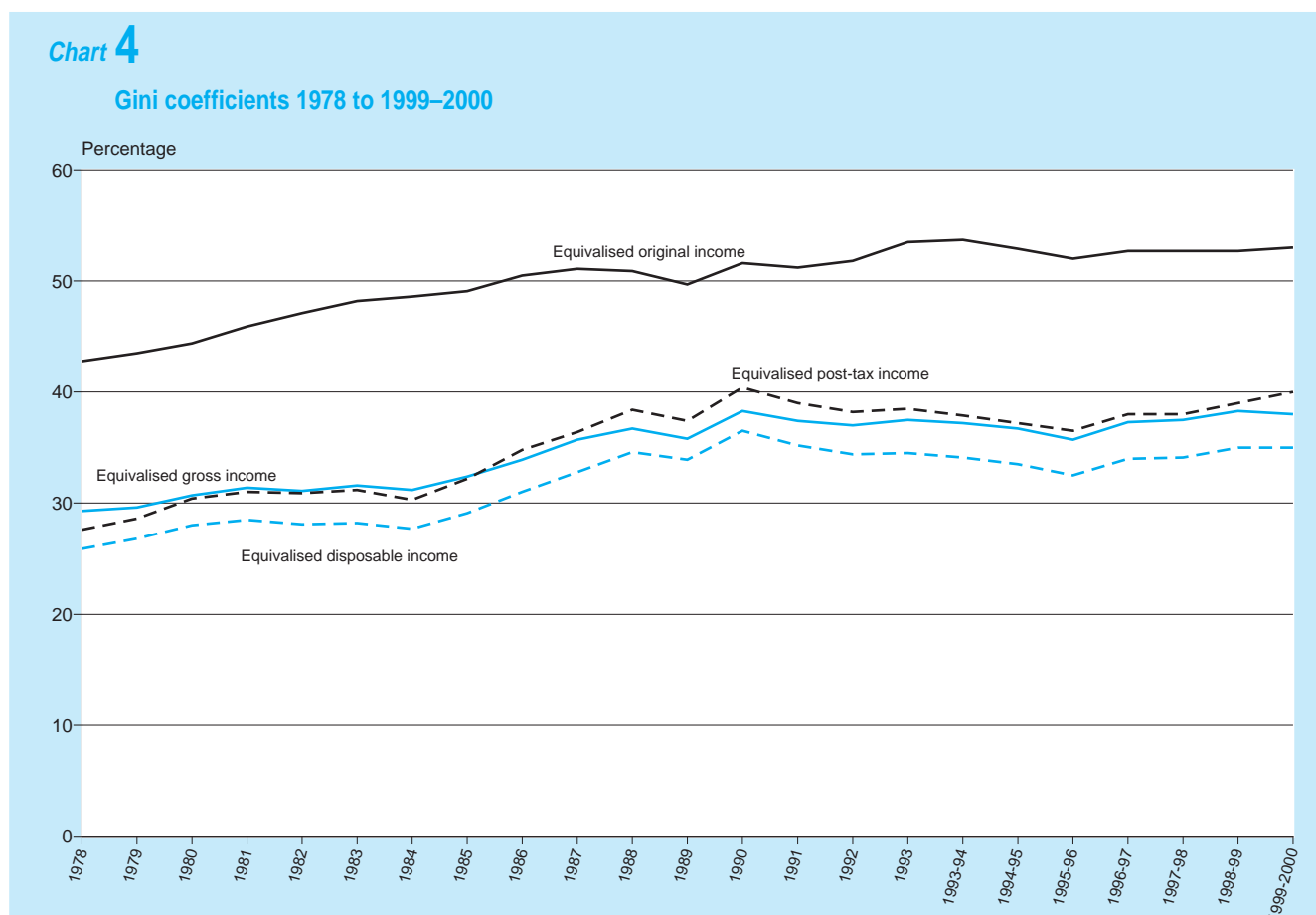
Chart 4 shows how inequality has been changing over time since

1978 for the various measures of income as measured by the Gini coefficient. It indicates several distinct phases over the last two decades and shows that the different measures of income do not always show the same trend in inequality.

The 1980s were characterised by a large increase in inequality. The Gini coefficient for original income rose steadily throughout this period. However the pattern for the coefficient for disposable income is slightly different: for the first half of the decade inequality of disposable income was stable; this was then followed by six years which saw a rapid rise in inequality.

The figures for the 1990s show a different story. Inequality of original income was relatively stable for the first two years, and then showed a small rise up to 1993–94. Since then the coefficient has again remained stable. In contrast inequality of disposable income reduced slowly until the mid 1990s, although the fall only reversed a small part of the rise seen in the previous decade. However data for the latest years show that, in the late 1990s, inequality of disposable income has risen slightly once again. Inequality of post-tax income has tended to follow a similar pattern, rising slowly in the late 1990s.

As with all measures derived from sample surveys, the Gini coefficients are subject to sampling errors. To give an indication as to whether the estimated changes in inequality are real changes or



simply the result of sampling variation, we have calculated confidence intervals for the coefficients in Chart 4 using software developed at the London School of Economics². These show that, in most cases, the year-on-year changes are within the bounds of sampling variation. An exception to this is the period from 1986 to 1988 when the increases are large enough to say that inequality of disposable income rose in each successive year. However when we look at changes over periods of more than one year, there are many more periods which cannot be explained by variation introduced by the sampling process. The confidence intervals confirm that the trends described in the paragraphs above are, in fact, longer term changes in inequality.

Figures produced by the alternative measures of inequality shown in Appendix 2 tell the same story as the Gini coefficient: one of increasing inequality of disposable income in the 1980s, particularly in the second half of the decade; a small decline in the early 1990s and a small rise in the late 1990s.

Changes in income distribution over time have been the focus of much study. The OECD⁴ has commissioned a number of studies into this, and has identified a number of reasons for possible shifts, in particular the widening of the income distribution during the 1980s. The most prominent reasons given are globalisation of trade pushing down some wages, recent technological changes having a bias against unskilled workers, and other developments concerning the

TABLE D: Percentage shares of household income and Gini coefficients¹ for NON-RETIRED households, 1999–2000

| | Percentage shares of equivalised income for NON-RETIRED households | | | |
|-----------------------------|--|--------------|-------------------|-----------------|
| | Original income | Gross income | Disposable income | Post-tax income |
| Quintile group ² | | | | |
| Bottom | 3 | 6 | 7 | 5 |
| 2nd | 10 | 11 | 12 | 11 |
| 3rd | 17 | 17 | 17 | 17 |
| 4th | 24 | 23 | 22 | 22 |
| Top | 47 | 43 | 42 | 45 |
| All non-retired households | 100 | 100 | 100 | 100 |
| Decile group ² | | | | |
| Bottom | 1 | 2 | 2 | 2 |
| Top | 30 | 28 | 27 | 29 |
| Gini coefficient (per cent) | 46 | 38 | 35 | 40 |

¹ This is a measure of the dispersion of each definition of income (see Appendix 3, paragraph 51).

² Households are ranked by equivalised disposable income.

deregulation of labour and product markets. However it is still argued that a fully satisfactory measure of all trends remains to be made.

Other explanations for trends in recent years offered by, for example, the Institute for Fiscal Studies (IFS), include the effect of wage growth in some areas, the change in the importance of self-employment income and change in the level of unemployment and the type of people affected. Like previous work, the IFS study looked at a limited set of factors, particularly concentrating on the role of the labour market. Self-employment income was found to be much more unequally distributed among the self-employed than earnings are among employees. For this reason, we might expect any growth in the importance of this source to increase total inequality. Indeed the IFS found that the trend in self-employment income as a proportion of total income does mirror the trend in inequality: this source made up 6 per cent of income in 1979, rose to a peak of 12 per cent in 1990, fell to 8 per cent in 1994–95 and recovered to 11 per cent by the end of the period.

RESULTS FOR NON-RETIRED HOUSEHOLDS

Overall effect

As for all households, the tax and benefit systems lead to income being shared more equally between non-retired households. Before government intervention, original income is shared more equally between non-retired households than for all households. After the process of redistribution, the shares of income and Gini coefficients for post-tax income are virtually the same as those for all households (Table D). The redistribution effect is therefore smaller for non-retired households than for all households. A summary of the effects of taxes and benefits on non-retired households is shown in Table E with more detail in Appendix 1, Table 3a.

Characteristics of households

Unlike all households, the average household size tends to decrease as income increases. This fall is more than accounted for by the decrease in the average number of children in each household, from 1.1 in the bottom quintile group to 0.4 in the top.

Other patterns are similar to those for all households. One-adult households with children are concentrated at the bottom of the distribution with around 60 per cent of these households in the bottom fifth and a further 28 per cent in the second quintile group (Table 3B in Appendix 1). Two-adult households with three or more children are also concentrated towards the bottom, although not to the same extent, while two-adult households without children are over-represented at the top.

TABLE E: Summary of the effects of taxes and benefits on NON-RETIRED households by quintile groups ¹, 1999-2000

| | Quintile groups of NON-RETIRED households ¹ | | | | | All non-retired households |
|---|--|--------|--------|--------|--------|----------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Income, taxes and benefits per household (£ per year) ² | | | | | | |
| Original income | 4 290 | 14 510 | 24 680 | 33 230 | 59 960 | 27 330 |
| plus cash benefits | 4 700 | 3 630 | 2 150 | 1 100 | 790 | 2 470 |
| Gross income | 8 990 | 18 140 | 26 820 | 34 330 | 60 750 | 29 810 |
| less direct taxes ² and employees' NIC | 1 060 | 3 170 | 5 490 | 7 780 | 14 460 | 6 390 |
| Disposable income | 7 930 | 14 970 | 21 330 | 26 550 | 46 290 | 24 350 |
| less indirect taxes | 2 700 | 3 970 | 4 910 | 5 440 | 6 670 | 4 740 |
| Post-tax income | 5 230 | 11 000 | 16 420 | 21 110 | 39 630 | 18 680 |
| plus benefits in kind | 4 900 | 3 940 | 3 430 | 2 660 | 2 150 | 3 420 |
| Final income | 10 140 | 14 940 | 19 840 | 23 770 | 41 770 | 22 090 |
| Number of individuals per household | | | | | | |
| Children ³ | 1.1 | 0.9 | 0.6 | 0.5 | 0.4 | 0.7 |
| Adults | 1.7 | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| Men | 0.8 | 0.9 | 1.1 | 1.1 | 1.0 | 1.0 |
| Women | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 |
| People | 2.8 | 2.8 | 2.7 | 2.5 | 2.2 | 2.6 |
| People in full-time education | 1.1 | 0.8 | 0.6 | 0.4 | 0.3 | 0.6 |
| Economically active people | 0.8 | 1.4 | 1.8 | 1.9 | 1.7 | 1.5 |
| Retired people | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 |

¹ Households are ranked by equivalised disposable income.

² These are income tax (which is after tax relief at source on mortgage interest and life assurance premiums) and council tax, domestic rates and water charges but after deducting discounts, council tax benefit and rate rebates.

³ Children are defined as people aged under 16 or aged between 16 and 18, unmarried and receiving non-advanced further education.

For single person households there are different patterns for men and women. Households containing only one man are over-represented in the top quintile of the distribution while one woman households are more evenly spread throughout the income groups.

Original income

The average original income for non-retired households is just over £27,000 (Table E). As mentioned above, inequality of original income is lower for non-retired households than for all households - the ratio of the average for the bottom quintile group to the top is one to 14 (compared to one to 19 for all households).

The original income of households shows a relatively strong relationship to the number of economically active people it contains. Households in the top three quintile groups typically contain more than twice as many economically active people as those in the lowest group.

Cash benefits

Table F gives a summary of the benefits that each quintile group receives. There are two types of benefits: contributory benefits which are paid from the National Insurance Fund to which individuals and their employers make contributions while working, and non-contributory benefits. For non-retired households, non-contributory benefits make up almost three quarters of all cash benefits.

The average non-retired household receives £2,500 in cash benefits. The bottom fifth receive almost double this amount while those in the top quintile group typically get £790. However the patterns for contributory and non-contributory benefits are different.

Most non-contributory benefits, particularly income support and housing benefit, are income related and so payments are concentrated in the two lowest quintile groups. However the presence of some individuals with low incomes in high income households means that some payments are recorded further up the income

TABLE F: Cash benefits for NON-RETIRED households by quintile group¹, 1999–2000

| | Quintile groups of NON-RETIRED households ¹ | | | | | All non-retired households |
|--|--|--------------|--------------|--------------|------------|----------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Average per household (£ per year) | | | | | | |
| Contributory | | | | | | |
| Retirement pension | 150 | 440 | 410 | 250 | 250 | 300 |
| Incapacity benefit | 500 | 540 | 280 | 150 | 60 | 310 |
| Job seeker's allowance ² | 80 | 30 | 20 | 10 | 10 | 30 |
| Other | 60 | 70 | 90 | 70 | 90 | 80 |
| Total contributory | 790 | 1 090 | 800 | 480 | 410 | 710 |
| Non-contributory | | | | | | |
| Income support | 1 280 | 530 | 170 | 40 | 10 | 410 |
| Child benefit | 710 | 570 | 420 | 320 | 230 | 450 |
| Housing benefit | 1 000 | 520 | 160 | 20 | 10 | 340 |
| Job seeker's allowance ³ | 240 | 70 | 30 | 10 | 10 | 70 |
| Sickness/disablement related | 250 | 550 | 390 | 150 | 70 | 280 |
| Other | 430 | 300 | 180 | 80 | 40 | 210 |
| Total non-contributory | 3 910 | 2 540 | 1 350 | 620 | 380 | 1 760 |
| Total cash benefits | 4 700 | 3 630 | 2 150 | 1 100 | 790 | 2 470 |
| Cash benefits as a percentage of gross income | 52 | 20 | 8 | 3 | 1 | 8 |

¹ Households are ranked by equivalised disposable income.

² Contribution based.

³ Income based.

distribution. About 60 per cent of income support and housing benefit paid to non-retired households goes to households in the bottom fifth of the distribution. Child benefit payments are based on the number of children in the household. The payments are higher at the lower end of the distribution, as these households tend to have more children. Non-contributory benefits also include Family Credit and Working Families Tax Credit (the latter from the end of 1999).

In contrast, one criterion for receipt of contributory benefits is the amount of national insurance contributions that has been paid by, or on behalf of, the individual. The amounts received from these benefits are highest in the second quintile group.

For all non-retired households, cash benefits provide 8 per cent of gross income on average. However for those in the bottom quintile group they form a much larger proportion - 52 per cent. Their payment results in a significant reduction in income inequality.

TABLE G: Taxes as a percentage of gross income for NON-RETIRED households by quintile group¹, 1999–2000

| | Quintile groups of NON-RETIRED households ¹ | | | | | All non-retired households |
|---------------------------|--|-------------|-------------|-------------|-------------|----------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Percentages | | | | | | |
| Direct taxes | | | | | | |
| Income tax ² | 4.2 | 9.1 | 12.0 | 14.4 | 18.2 | 14.3 |
| Employees' NIC | 2.4 | 4.5 | 5.2 | 5.6 | 3.8 | 4.5 |
| Local taxes ³ | 5.3 | 4.0 | 3.3 | 2.7 | 1.7 | 2.7 |
| All direct taxes | 11.8 | 17.5 | 20.5 | 22.7 | 23.8 | 21.4 |
| All indirect taxes | 30.0 | 21.9 | 18.3 | 15.8 | 11.0 | 15.9 |
| All taxes | 41.8 | 39.4 | 38.8 | 38.5 | 34.8 | 37.3 |

¹ Households are ranked by equivalised disposable income.

² After tax relief at source on mortgage interest and life assurance premiums.

³ Council tax, domestic rates and water charges after deducting discounts, council tax benefit and rate rebates.

Direct taxes

Households at the lower end of the income distribution pay smaller amounts of direct tax compared with households with higher incomes (table 3A in Appendix 1). Of the total income tax paid by non-retired households, the bottom two quintile groups pay about 10 per cent. This compares with 75 per cent of the total paid by the top two fifths.

In addition, low income households also pay a smaller proportion of their income in income tax. This is due to the progressive nature of the income tax system (Table G). As a proportion of their gross incomes, households in the bottom quintile group typically pay 4 per cent in income tax compared with 18 per cent for those in the top quintile group.

For national insurance contributions, the amount paid as a proportion of gross income rises as income rises until the fourth quintile group; the proportion then falls for the top fifth. This is because national insurance contributions are only levied on the first £500 of weekly earnings in 1999–2000, so part of the earnings of many of those in the top quintile group will not be subject to this deduction.

Local taxes mainly consist of council tax in Great Britain and domestic rates in Northern Ireland and are shown net of council tax benefits and rates rebates in Table G. Households in the lower part of the income distribution pay smaller absolute amounts in local taxes - net payments by the bottom quintile group are typically less than half of those in the top fifth. However, when expressed as a proportion of gross income, the impact decreases as income rises - local taxes represent 5 per cent of gross income for the bottom fifth but less than 2 per cent for those in the top quintile group.

Indirect taxes

The amount of indirect tax that each household pays is estimated from its expenditure recorded in the FES. However the income and expenditure data recorded in the FES are not fully compatible because they are recorded in different ways (see Appendix 3, paragraph 6). Indeed, measured expenditure exceeds measured income in the lower half of the distribution. There are a number of possible explanations for this. Some households with low incomes may draw on their savings or borrow in order to finance their expenditure. In these cases, expenditure taxes are not being met from current income. Some types of receipts are not included as income in the FES, e.g. severance payments, receipts from building society demutualisations. For a minority of households, the FES may be measuring incomes inaccurately. Therefore, to give a more complete picture of the impact of indirect taxes, they are shown in Table H as a proportion of total income and, separately, as a proportion of expenditure. In addition indirect taxes are also shown as a proportion of gross income in Table G so that the impact of direct and indirect taxes can be compared.

In cash terms, the top fifth of non-retired households pay around two and a half times as much indirect tax as the bottom fifth. However, when expressed as a percentage of disposable income or expenditure,

the proportion paid in indirect tax tends to be lower for households at the top of the distribution compared to those lower down.

When expressed as a proportion of disposable income, the impact of indirect taxes declines sharply as income rises. This is because those in higher income groups tend to channel a larger proportion of their income into savings and mortgage payments, which do not attract indirect taxes. Indirect taxes appear less regressive when expressed as a proportion of expenditure, with payments rising broadly in line with expenditure. However the top fifth still pay a smaller proportion of their expenditure in indirect taxation. In particular the burden of tobacco duty is much heavier on households in the lower half of the distribution.

Benefits in kind

The Government provides certain goods and services to households, either free at the time of use or at subsidised prices. This study allocates these benefits in kind to individual households in order to arrive at final income. The imputed value of these benefits is based on the estimated cost of providing them. The largest two items for which such imputations are made are health and education services. The 1999 expenditure on these that is allocated in this analysis is

TABLE H: Indirect taxes as a percentage of (a) disposable income and (b) household expenditure¹ for NON-RETIRED households by quintile group², 1999–2000

| | Quintile groups of NON-RETIRED households ² | | | | | All non-retired households |
|---|--|------|------|------|------|----------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| (a) Percentages of disposable income | | | | | | |
| VAT | 12.6 | 10.4 | 9.3 | 8.6 | 6.5 | 8.4 |
| Duty on alcohol | 1.7 | 1.5 | 1.4 | 1.2 | 0.8 | 1.1 |
| Duty on tobacco | 4.9 | 2.8 | 1.7 | 1.1 | 0.5 | 1.4 |
| Duty on hydrocarbon oils and Vehicle excise duty | 4.2 | 3.6 | 3.4 | 3.0 | 1.9 | 2.8 |
| Other indirect taxes | 10.7 | 8.2 | 7.2 | 6.5 | 4.8 | 6.5 |
| All indirect taxes | 34.0 | 26.5 | 23.0 | 20.5 | 14.4 | 20.2 |
| (b) Percentages of expenditure² | | | | | | |
| VAT | 8.4 | 8.6 | 8.4 | 8.3 | 7.4 | 8.1 |
| Duty on alcohol | 1.1 | 1.3 | 1.2 | 1.1 | 0.9 | 1.1 |
| Duty on tobacco | 3.3 | 2.3 | 1.5 | 1.1 | 0.5 | 1.4 |
| Duty on hydrocarbon oils and Vehicle excise duty | 2.8 | 3.0 | 3.1 | 2.9 | 2.2 | 2.7 |
| Other indirect taxes | 7.1 | 6.8 | 6.5 | 6.3 | 5.4 | 6.2 |
| All indirect taxes | 22.8 | 22.0 | 20.8 | 19.7 | 16.4 | 19.4 |

¹ Households are ranked by equivalised disposable income.

² Calculated to be consistent with disposable income. See paragraph 34 of Appendix 3 for the definition of expenditure.

TABLE I: Benefits in kind for NON-RETIRED households by quintile group¹, 1999–2000

| | Quintile groups of NON-RETIRED households ¹ | | | | | All non-retired households |
|--|--|-------|-------|-------|-------|----------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Average per household (£ per year) | | | | | | |
| Education | 3 080 | 2 060 | 1 720 | 1 150 | 700 | 1 740 |
| National health service | 1 610 | 1 760 | 1 630 | 1 440 | 1 350 | 1 560 |
| Housing subsidy ² | 70 | 40 | 20 | 10 | 0 | 30 |
| Travel subsidies | 40 | 40 | 50 | 50 | 90 | 50 |
| School meals and welfare milk | 110 | 40 | 10 | 10 | 0 | 30 |
| All benefits in kind | 4 900 | 3 940 | 3 430 | 2 660 | 2 150 | 3 420 |
| Benefits in kind as a percentage of post-tax income | | | | | | |
| | 94 | 36 | 21 | 13 | 5 | 18 |

¹ Households are ranked by equivalised disposable income.

² Does not include tax relief at source on mortgage payments. These are taken into account in the income tax payments shown in Table E.

paragraph 36). Households in the bottom quintile receive the highest benefit from education. This is due to the concentration of children in this part of the distribution. In addition, most of the households that contain only students, for whom education costs are greatest, are found in the bottom quintile. There will however be benefit from higher education further up the distribution where students are living with their parents. The impact of expenditure on school meals and welfare foods is greatest in the lower income groups, where children are more likely to have school meals provided free of charge.

The benefit from the health service is estimated according to the age and sex of the household members rather than their actual use of the service, as the FES does not contain this information (Appendix 3, paragraph 38). The imputed benefit is relatively high for young children, low in later childhood and through the adult years, until it begins to rise from late middle age onwards. This benefit increases slightly from the bottom quintile to the second quintile, then falls gradually as income rises and this pattern is a reflection of the demographic composition of households. A study by Sefton⁵ attempted to allow for variations in use of the health service according to socio-economic characteristics and incomes. His results showed a picture that is broadly similar to that presented here.

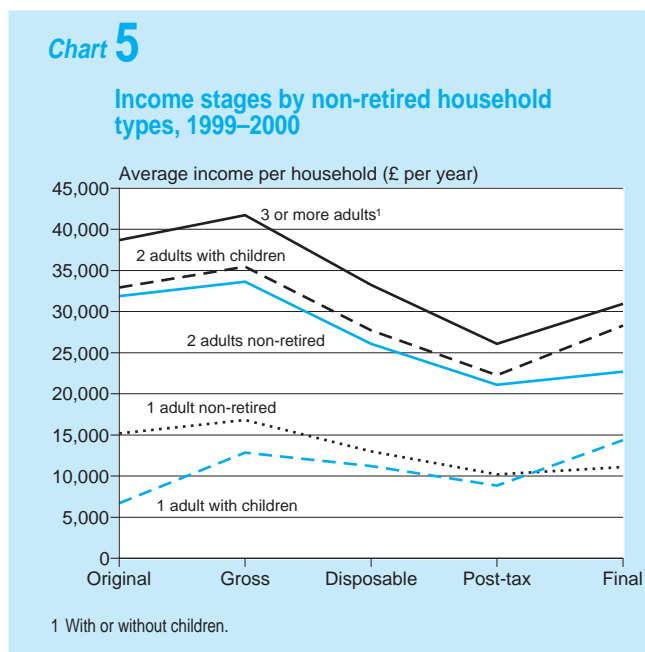
The housing subsidy, which excludes housing benefit and mortgage interest tax relief (see Appendix 3, paragraph 39), is spread between public sector tenants and, since such households tend to be concentrated in the lower half of the income distribution, this is where the imputed benefit is highest.

Travel subsidies cover the support payments made to bus and train operating companies. The use of public transport by non-retired households is partly related to the need to travel to work and therefore to the number of economically active people in a household. This results in these subsidies increasing as income increases. This pattern is also due to London and the South East having high levels of commuting by public transport, together with higher than average household incomes.

Taken together, the absolute value of these benefits in kind declines as household income increases. The ratio of benefits in kind to post-tax income decreases from 94 per cent for the lowest quintile group to 5 per cent for the highest. This indicates that these benefits contribute to the reduction in inequality.

The effects of taxes and benefits by household type

The tax and benefit systems affect different types of household in different ways reflecting, in part, the number and ages of people within each household type. Of the types of non-retired households



equivalent to around 26 per cent of total general government expenditure. Other items for which imputations are made are school meals, welfare milk, housing subsidy and travel subsidies. These items are equivalent to a further 1 per cent of general government expenditure. Table I gives a summary of the value of these benefits for each quintile group.

The benefit in kind from education is allocated to a household according to its members' use of state education (Appendix 3,

shown in Chart 5, only those containing one adult and children are net gainers, with average final incomes of £14,400 compared to original incomes of £6,700. Table 8 in Appendix 1 has a more detailed breakdown that shows that households with two adults and three or more children are also net beneficiaries, but to a smaller extent.

Original income is strongly related to the number of adults in the household. For two-adult households, those with children have slightly lower levels of original income than those without, but the effects of taxes and cash benefits are broadly similar for both groups. Final incomes are higher for those with children due to the imputed benefit in kind from education.

For one-adult households, original income is much lower for those with children as the adult is less likely to be economically active. Benefits, both in cash and in kind, are significantly higher for those with children.

RESULTS FOR RETIRED HOUSEHOLDS

In this analysis, retired households are those where the income of retired household members accounts for more than half of the household gross income (see Appendix 3, paragraph 9 for the definition of a retired person). These households have quite distinct income and expenditure patterns and the tax and benefit systems affect them in different ways from non-retired households.

TABLE J: Percentage shares of household income and Gini coefficients¹ for RETIRED households, 1999–2000

| | Percentage shares of equivalised income for RETIRED households ² | | | |
|-----------------------------|---|--------------|-------------------|-----------------|
| | Original income | Gross income | Disposable income | Post-tax income |
| Quintile group ² | | | | |
| Bottom | 4 | 10 | 10 | 8 |
| 2nd | 6 | 13 | 14 | 14 |
| 3rd | 11 | 16 | 17 | 17 |
| 4th | 20 | 21 | 22 | 22 |
| Top | 60 | 40 | 38 | 39 |
| All retired households | 100 | 100 | 100 | 100 |
| Decile group ² | | | | |
| Bottom | 1 | 4 | 4 | 3 |
| Top | 43 | 25 | 23 | 25 |
| Gini coefficient (per cent) | 64 | 30 | 28 | 32 |

¹ This is a measure of the dispersion of each definition of income (see Appendix 3, paragraph 51).

² Households are ranked by equivalised disposable income.

There is a high degree of inequality in original income between households. Tables J and 4A in Appendix 1 show that, before government intervention, the richest fifth of retired households receive three fifths of total original income, while the Gini coefficient for this measure of income is 64 per cent. Both these measures are higher (showing more inequality) than equivalent figures for non-retired households. However after the impact of taxes and benefits there is a large reduction in inequality. Cash benefits play by far the largest part in bringing about this reduction and income tax payments make a further, though much smaller, contribution. Payments of indirect taxes result in an increase in inequality.

Overall, retired households receive an average of £6,500 in original income with most of this coming from occupational pensions and investments (Table K). Original income ranges from £1,200 for the bottom quintile group to £19,700 for the top. On the other hand, amounts received from cash benefits vary less across the distribution: on average households in the bottom fifth receive around £4,800 from this source, while those in the second to top quintile groups receive between £6,000 and £7,000. These cash benefits make up large proportions of the gross incomes for the bottom four quintiles ranging from 81 per cent for the bottom quintile group to 51 per cent for the fourth quintile group. The top fifth are much less dependent on cash benefits - these account for only 25 per cent of their gross incomes.

Most retired people will have made contributions to the National Insurance Fund throughout their working lives. The bulk of the benefits which retired households receive will be paid out of this fund in the form of contributory benefits, the most significant of which is the retirement pension, which accounts for almost three quarters of their cash benefits (Appendix 1, Table 4A).

Non-contributory benefits are lowest in the bottom quintile group, where more than two-thirds of households own their homes outright and so receive little in the way of housing benefit. In addition, disability benefits sometimes make up a significant proportion of the income of a retired household and their receipt may push a household up the income distribution. This does not necessarily mean that households receiving disability benefits have a higher standard of living than those lower down the income distribution, as the income from these benefits may be offset by the additional costs that may be incurred by the individual due to the illness or disability in question.

Retired households derive significant benefits from health services and, to a lesser extent, the housing subsidy and travel subsidies. Health benefit is spread fairly evenly between retired households whereas benefit from the housing subsidy is substantially higher for the second and third quintiles, since public sector tenants are concentrated in these groups. The benefits received by retired households from travel subsidies are mainly for bus travel, particularly

TABLE K: Summary of the effects of taxes and benefits on RETIRED households by quintile group¹, 1999–2000

| | Quintile groups of RETIRED households ¹ | | | | | All retired households |
|--|--|-------|--------|--------|--------|------------------------|
| | Bottom | 2nd | 3rd | 4th | Top | |
| Income, taxes and benefits per household (£ per year)² | | | | | | |
| Original income | | | | | | |
| Earnings | 40 | 10 | 180 | 300 | 940 | 290 |
| Occupational pensions | 690 | 1 250 | 2 550 | 4 710 | 13 090 | 4 460 |
| Investment income | 390 | 420 | 660 | 1 430 | 5 490 | 1 680 |
| Other income | 30 | 90 | 60 | 70 | 170 | 90 |
| Total original income | 1 150 | 1 780 | 3 450 | 6 510 | 19 690 | 6 520 |
| <i>plus</i> Contributory benefits | 4 300 | 4 670 | 4 910 | 4 990 | 4 790 | 4 730 |
| Non-contributory benefits | 520 | 1 360 | 1 690 | 1 900 | 1 700 | 1 430 |
| Gross income | 5 970 | 7 810 | 10 050 | 13 410 | 26 180 | 12 680 |
| <i>less</i> Income tax ² | 90 | 130 | 400 | 820 | 3 460 | 980 |
| Employees' NIC | 10 | 0 | 10 | 10 | 50 | 20 |
| Local taxes ³ | 650 | 590 | 650 | 740 | 1 020 | 730 |
| Disposable income | 5 230 | 7 090 | 8 980 | 11 850 | 21 650 | 10 960 |
| <i>less</i> Indirect taxes | 1 660 | 1 440 | 1 930 | 2 400 | 3 640 | 2 210 |
| Post-tax income | 3 570 | 5 660 | 7 050 | 9 450 | 18 010 | 8 750 |
| <i>plus</i> National health service | 2 960 | 3 100 | 2 840 | 2 880 | 2 900 | 2 940 |
| Housing subsidy ⁴ | 20 | 60 | 70 | 30 | 10 | 40 |
| Other benefits in kind | 180 | 70 | 130 | 120 | 120 | 120 |
| Final income | 6 730 | 8 880 | 10 090 | 12 480 | 21 050 | 11 850 |

¹ Households are ranked by equivalised disposable income.

² After tax relief at source on mortgage interest and life assurance premiums.

³ Council tax, local rates and water charges after deducting discounts, council tax benefit and rate rebates.

⁴ Does not include tax relief at source on mortgage payments, which is included in the income tax payments shown above.

in the form of concessionary fares and passes for senior citizens, and since these are not usually means-tested there is no particular relationship with income.

Table 8 in Appendix 1 gives some details of the effect of taxes and benefits on different types of retired household. On average, both one adult retired households and those with two or more adults are net gainers from the tax and benefit systems. For one adult retired households there are distinct differences in original income by gender. Men receive almost 50 per cent more original income than women on average: £4,900 for men compared with £3,000 for women. However after the addition of benefits and the deduction of taxes the differences are greatly reduced, so that final income levels for these men and women are similar.

The author gratefully acknowledges the considerable work done for this study by Daniel Annan, Peter Mayne, Paul Janvier and Dave Westcott.

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APPENDIX 1

Detailed tables for 1999–2000

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TABLE 1 (Appendix 1): Taxes and benefits allocated to households as a percentage of general government expenditure, 1999

| Taxes and compulsory social contributions ¹ allocated to households | | | Benefits allocated to households | | |
|---|----------------|--------------------------|---------------------------------------|----------------|--------------------------|
| | £ million | % of GGE ² | | £ million | % of GGE ² |
| Income tax (gross) | 92 500 | 27.5 | Cash benefits | | |
| Tax reliefs (MIRAS ,etc) | -1 800 | -0.5 | | | |
| Income tax (net) | 90 700 | 26.9 | Contributory (National Insurance,etc) | | |
| Employees' & self-employed NI contributions | 25 120 | 7.5 | Retirement | 37 300 | 11.1 |
| Council tax | 12 860 | 3.8 | Incapacity benefit | 6 930 | 2.1 |
| | | | Widows and guardians | 970 | 0.3 |
| | | | Maternity/Statutory maternity pay | 620 | 0.2 |
| | | | Unemployment/ Job seekers allowance | 470 | 0.1 |
| | | | Social fund | 990 | 0.3 |
| | | | Other | 160 | 0.0 |
| Taxes on final goods and services | | | Non-contributory | | |
| VAT | 41 060 | 12.2 | Income support | 12 080 | 3.6 |
| Duty on hydrocarbon oils | 11 290 | 3.4 | Family benefits | 10 380 | 3.1 |
| Duty on tobacco | 7 380 | 2.2 | War pensions | 1 250 | 0.4 |
| Vehicle excise duty | 3 220 | 1.0 | Other | 15 840 | 4.7 |
| Duty on wines,cider,perry and spirits | 3 410 | 1.0 | | | |
| Duty on beer | 2 670 | 0.8 | Student support | 900 | 0.3 |
| Betting duties | 1 480 | 0.4 | | | |
| Camelot: payments to NLDF | 1 530 | 0.5 | Rent rebates and allowances | 11 190 | 3.3 |
| Stamp duty on house purchase | 1 640 | 0.5 | | | |
| Other | 2 800 | 0.8 | Benefits in kind | | |
| Taxes & NI contributions on intermediate goods & services ³ | | | Health services | 48 650 | 14.4 |
| Employers' NI contributions | 10 530 | 3.1 | Education | 38 910 | 11.5 |
| Commercial & industrial rates | 7 050 | 2.1 | Travel subsidies ⁴ | 1 460 | 0.4 |
| Duty on hydrocarbon oils | 5 670 | 1.7 | Housing subsidy | 950 | 0.3 |
| VAT | 3 340 | 1.0 | School meals and welfare milk | 910 | 0.3 |
| Vehicle excise duty | 870 | 0.3 | | | |
| Other | 1 720 | 0.5 | | | |
| Total | 234 340 | 69.6 | Total | 189 960 | 56.4 |

1 Paid to UK central and local government and European Union institutions.

2 Expressed as a percentage of general government expenditure.

3 These are taxes paid by industry and commerce assumed to be passed on to households in the prices of goods and services they buy. For instance, duty on derv used in the transportation of goods is an 'intermediate' tax whereas the duty on petrol bought by the private motorist is a tax on final goods and services.

4 Including concessionary fares expenditure.

Source: United Kingdom National Accounts, 2000 Edition.

TABLE 2A (Appendix 1): Average incomes, taxes and benefits by decile groups of ALL households, 1999–2000

| | Decile groups of all households ranked by equivalised disposable income | | | | | | | | | | All households |
|--|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| <i>Decile points (equivalised £)</i> | 7 372 | 9 171 | 11 009 | 13 173 | 15 629 | 18 208 | 21 348 | 26 115 | 33 706 | | |
| Number of households in the population ('000s) | 2 532 | 2 531 | 2 534 | 2 535 | 2 535 | 2 533 | 2 534 | 2 531 | 2 534 | 2 536 | 25 335 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 1 103 | 2 290 | 3 843 | 7 113 | 11 009 | 15 709 | 19 674 | 24 621 | 32 636 | 44 392 | 16 239 |
| Imputed income from benefits in kind | 7 | 2 | 23 | 31 | 91 | 156 | 258 | 403 | 616 | 1 291 | 288 |
| Self-employment income | 306 | 390 | 360 | 733 | 1 148 | 1 121 | 2 026 | 1 645 | 2 884 | 13 913 | 2 453 |
| Occupational pensions, annuities | 269 | 522 | 884 | 1 334 | 1 751 | 1 711 | 2 190 | 2 687 | 2 554 | 3 131 | 1 703 |
| Investment income | 183 | 307 | 279 | 435 | 631 | 670 | 852 | 985 | 1 429 | 5 568 | 1 134 |
| Other income | 136 | 174 | 170 | 160 | 118 | 233 | 221 | 277 | 176 | 207 | 187 |
| Total | 2 004 | 3 685 | 5 559 | 9 806 | 14 749 | 19 600 | 25 220 | 30 619 | 40 295 | 68 503 | 22 004 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 1 317 | 2 041 | 2 319 | 2 167 | 1 757 | 1 402 | 1 031 | 825 | 599 | 544 | 1 400 |
| Job seeker's allowance (Contribution based) | 81 | 56 | 26 | 13 | 17 | 10 | 14 | 11 | 6 | 5 | 24 |
| Incapacity benefit | 237 | 364 | 389 | 408 | 375 | 230 | 212 | 152 | 109 | 42 | 252 |
| Widows' benefits | 45 | 55 | 19 | 68 | 71 | 39 | 42 | 14 | 29 | 23 | 40 |
| Statutory Maternity Pay/ Allowance | 1 | 3 | 8 | 12 | 16 | 28 | 38 | 36 | 60 | 49 | 25 |
| Non-contributory | | | | | | | | | | | |
| Income support | 894 | 940 | 534 | 466 | 356 | 307 | 123 | 61 | 16 | 21 | 372 |
| Child benefit | 463 | 425 | 360 | 355 | 383 | 359 | 296 | 273 | 250 | 206 | 337 |
| Housing benefit | 543 | 898 | 939 | 548 | 332 | 282 | 133 | 29 | 1 | 22 | 373 |
| Job seeker's allowance (Income based) | 221 | 119 | 72 | 30 | 34 | 25 | 24 | 11 | 6 | 6 | 55 |
| Invalid care allowance | 26 | 32 | 24 | 59 | 22 | 41 | 36 | 8 | 5 | 0 | 25 |
| Attendance allowance | 7 | 76 | 105 | 151 | 163 | 161 | 114 | 59 | 9 | 4 | 85 |
| Disability living allowance/ Disabled persons tax credit | 90 | 140 | 132 | 371 | 370 | 302 | 178 | 97 | 55 | 23 | 176 |
| War pensions / War widows' pensions | 0 | 6 | 17 | 31 | 58 | 7 | 102 | 82 | 20 | 14 | 34 |
| Severe disablement allowance | 19 | 17 | 28 | 57 | 40 | 52 | 19 | 13 | 13 | 8 | 27 |
| Industrial injury disablement benefit | 4 | 28 | 32 | 36 | 29 | 36 | 8 | 17 | 13 | 31 | 23 |
| Student support | 102 | 35 | 44 | 21 | 23 | 92 | 60 | 83 | 42 | 28 | 53 |
| Government training schemes | 27 | 17 | 36 | 19 | 37 | 52 | 1 | 7 | 0 | 5 | 20 |
| Family credit/Working Families Tax Credit | 110 | 204 | 189 | 94 | 82 | 38 | 11 | 1 | 2 | 0 | 73 |
| Other non-contributory benefits | 48 | 58 | 43 | 35 | 31 | 10 | 9 | 11 | 13 | 2 | 26 |
| Total cash benefits | 4 233 | 5 514 | 5 314 | 4 939 | 4 196 | 3 471 | 2 452 | 1 788 | 1 249 | 1 033 | 3 419 |
| Gross income | 6 238 | 9 199 | 10 873 | 14 745 | 18 945 | 23 071 | 27 672 | 32 407 | 41 544 | 69 536 | 25 423 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 194 | 330 | 557 | 1 133 | 1 828 | 2 557 | 3 576 | 4 637 | 6 550 | 13 441 | 3 480 |
| less: Tax relief at source ¹ | 20 | 17 | 25 | 39 | 57 | 77 | 91 | 106 | 129 | 129 | 69 |
| Employees' NI contributions | 84 | 148 | 244 | 466 | 724 | 1 038 | 1 334 | 1 635 | 2 147 | 2 179 | 1 000 |
| Local taxes ² | 752 | 784 | 769 | 837 | 852 | 897 | 929 | 965 | 1 045 | 1 147 | 898 |
| less: Council tax benefit / Rate rebates | 242 | 238 | 184 | 134 | 92 | 73 | 49 | 33 | 28 | 36 | 111 |
| Total | 767 | 1 007 | 1 361 | 2 263 | 3 255 | 4 341 | 5 699 | 7 097 | 9 585 | 16 602 | 5 198 |
| Disposable income | 5 470 | 8 192 | 9 512 | 12 482 | 15 690 | 18 730 | 21 972 | 25 309 | 31 958 | 52 934 | 20 225 |
| <i>Equivalised disposable income</i> | <i>5 209</i> | <i>8 293</i> | <i>10 056</i> | <i>12 041</i> | <i>14 370</i> | <i>16 851</i> | <i>19 727</i> | <i>23 449</i> | <i>29 532</i> | <i>51 582</i> | <i>19 111</i> |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 916 | 824 | 850 | 1 244 | 1 521 | 1 763 | 1 893 | 2 263 | 2 489 | 3 201 | 1 696 |
| Duty on tobacco | 255 | 319 | 251 | 305 | 335 | 278 | 332 | 269 | 262 | 178 | 279 |
| Duty on beer and cider | 66 | 48 | 53 | 86 | 120 | 138 | 125 | 151 | 149 | 143 | 108 |
| Duty on wines & spirits | 61 | 49 | 68 | 83 | 108 | 124 | 131 | 163 | 181 | 221 | 119 |
| Duty on hydrocarbon oils | 223 | 202 | 203 | 311 | 403 | 493 | 535 | 600 | 677 | 678 | 432 |
| Vehicle excise duty | 68 | 63 | 66 | 99 | 115 | 140 | 155 | 173 | 193 | 180 | 125 |
| Television licences | 85 | 89 | 89 | 93 | 93 | 93 | 95 | 95 | 96 | 98 | 93 |
| Stamp duty on house purchase | 23 | 17 | 17 | 29 | 34 | 50 | 56 | 67 | 96 | 154 | 54 |
| Customs duties | 18 | 17 | 17 | 24 | 28 | 32 | 35 | 41 | 46 | 58 | 32 |
| Betting taxes | 42 | 34 | 47 | 48 | 60 | 62 | 64 | 78 | 76 | 50 | 56 |
| Insurance premium tax | 13 | 12 | 14 | 20 | 25 | 31 | 36 | 41 | 50 | 60 | 30 |
| Air passenger duty | 5 | 3 | 5 | 7 | 11 | 17 | 24 | 26 | 34 | 47 | 18 |
| Camelot National Lottery Fund | 36 | 46 | 45 | 60 | 74 | 74 | 77 | 75 | 72 | 51 | 61 |
| Other | 6 | 5 | 2 | 12 | 9 | 8 | 23 | 11 | 9 | 13 | 10 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 133 | 124 | 128 | 177 | 206 | 238 | 260 | 299 | 337 | 427 | 233 |
| Employers' NI contributions | 199 | 186 | 192 | 264 | 309 | 356 | 389 | 448 | 504 | 639 | 349 |
| Duty on hydrocarbon oils | 107 | 100 | 103 | 142 | 166 | 191 | 208 | 240 | 270 | 342 | 187 |
| Vehicle excise duty | 15 | 14 | 14 | 20 | 23 | 26 | 29 | 33 | 37 | 47 | 26 |
| Other | 105 | 98 | 102 | 140 | 163 | 188 | 205 | 237 | 266 | 337 | 184 |
| Total indirect taxes | 2 375 | 2 249 | 2 267 | 3 165 | 3 805 | 4 302 | 4 672 | 5 309 | 5 842 | 6 923 | 4 091 |
| Post-tax income | 3 095 | 5 943 | 7 246 | 9 317 | 11 886 | 14 428 | 17 301 | 20 001 | 26 116 | 46 011 | 16 134 |
| Benefits in kind | | | | | | | | | | | |
| Education | 2 546 | 1 531 | 1 209 | 1 361 | 1 365 | 1 397 | 1 231 | 1 001 | 872 | 587 | 1 310 |
| National health service | 1 969 | 2 293 | 2 362 | 2 144 | 2 061 | 1 887 | 1 824 | 1 657 | 1 531 | 1 374 | 1 910 |
| Housing subsidy | 48 | 65 | 68 | 45 | 36 | 24 | 17 | 15 | 9 | 3 | 33 |
| Rail travel subsidy | 23 | 10 | 10 | 16 | 16 | 29 | 27 | 41 | 41 | 88 | 30 |
| Bus travel subsidy | 31 | 38 | 43 | 37 | 31 | 28 | 22 | 19 | 12 | 13 | 27 |
| School meals and welfare milk | 83 | 60 | 29 | 27 | 15 | 10 | 11 | 6 | 6 | 3 | 25 |
| Total | 4 701 | 3 996 | 3 720 | 3 630 | 3 524 | 3 375 | 3 131 | 2 738 | 2 470 | 2 068 | 3 335 |
| Final income | 7 796 | 9 940 | 10 966 | 12 946 | 15 410 | 17 802 | 20 432 | 22 739 | 28 586 | 48 079 | 19 470 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 2B (Appendix 1) : Household characteristics of decile groups of ALL households, 1999–2000

| | Decile groups of all households ranked by equivalised disposable income | | | | | | | | | | All households |
|--|---|------|------|------|------|------|------|------|------|------|----------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (number) | | | | | | | | | | | |
| People | 2.3 | 2.2 | 2.1 | 2.3 | 2.4 | 2.5 | 2.4 | 2.3 | 2.3 | 2.1 | 2.3 |
| Adults | 1.6 | 1.6 | 1.5 | 1.7 | 1.8 | 1.9 | 2.0 | 1.9 | 2.0 | 1.8 | 1.8 |
| Men | 0.7 | 0.7 | 0.6 | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 0.9 |
| Women | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.9 |
| Children | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.3 | 0.5 |
| Economically active people | 0.5 | 0.5 | 0.6 | 0.9 | 1.1 | 1.4 | 1.6 | 1.6 | 1.7 | 1.6 | 1.1 |
| Retired people | 0.5 | 0.6 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.4 |
| People in full-time education | 0.84 | 0.57 | 0.47 | 0.51 | 0.52 | 0.51 | 0.43 | 0.36 | 0.34 | 0.30 | 0.49 |
| In state primary schools | 0.37 | 0.29 | 0.25 | 0.25 | 0.25 | 0.22 | 0.17 | 0.14 | 0.11 | 0.10 | 0.21 |
| In state secondary schools | 0.21 | 0.18 | 0.15 | 0.16 | 0.19 | 0.17 | 0.15 | 0.12 | 0.12 | 0.05 | 0.15 |
| In further and higher education | 0.23 | 0.08 | 0.05 | 0.07 | 0.06 | 0.10 | 0.08 | 0.08 | 0.07 | 0.05 | 0.09 |
| In other educational establishments | 0.03 | 0.02 | 0.02 | 0.02 | 0.03 | 0.02 | 0.03 | 0.03 | 0.04 | 0.10 | 0.03 |
| Composition (percentages) | | | | | | | | | | | |
| Household type | | | | | | | | | | | |
| Retired | | | | | | | | | | | |
| 1 adult | 20 | 23 | 32 | 21 | 16 | 12 | 8 | 6 | 3 | 3 | 14 |
| 1 adult men | 4 | 5 | 8 | 6 | 4 | 3 | 3 | 2 | 2 | 1 | 4 |
| 1 adult women | 16 | 17 | 24 | 16 | 12 | 9 | 5 | 4 | 1 | 2 | 11 |
| 2 or more adults | 12 | 19 | 17 | 16 | 14 | 10 | 8 | 8 | 5 | 4 | 11 |
| Non-retired | | | | | | | | | | | |
| 1 adult | 20 | 13 | 12 | 12 | 14 | 16 | 17 | 19 | 21 | 27 | 17 |
| 1 adult men | 11 | 8 | 7 | 6 | 9 | 10 | 10 | 12 | 13 | 19 | 11 |
| 1 adult women | 9 | 5 | 5 | 6 | 5 | 5 | 7 | 7 | 7 | 8 | 7 |
| 2 adults | 11 | 7 | 9 | 16 | 15 | 20 | 25 | 28 | 33 | 38 | 20 |
| 3 or more adults | 4 | 5 | 3 | 5 | 9 | 10 | 14 | 12 | 12 | 7 | 8 |
| 1 adult with children | 14 | 16 | 11 | 6 | 4 | 3 | 3 | 2 | 1 | 1 | 6 |
| 2 adults with 1 child | 4 | 4 | 4 | 6 | 7 | 7 | 8 | 10 | 11 | 10 | 7 |
| 2 adults with 2 children | 6 | 5 | 6 | 8 | 12 | 11 | 9 | 10 | 9 | 6 | 8 |
| 2 adults with 3 or more children | 5 | 6 | 5 | 5 | 5 | 4 | 3 | 1 | 1 | 2 | 4 |
| 3 or more adults with children | 3 | 2 | 2 | 4 | 5 | 7 | 5 | 4 | 3 | 3 | 4 |
| Household tenure | | | | | | | | | | | |
| Rented | | | | | | | | | | | |
| Local authority rented | 26 | 38 | 35 | 24 | 18 | 13 | 8 | 5 | 2 | 1 | 17 |
| Housing association or RSL | 6 | 11 | 12 | 8 | 6 | 4 | 3 | 2 | 0 | 1 | 5 |
| Other rented unfurnished | 3 | 5 | 5 | 5 | 5 | 4 | 4 | 2 | 3 | 3 | 4 |
| Rented furnished | 10 | 5 | 4 | 3 | 4 | 5 | 5 | 6 | 5 | 5 | 5 |
| Rent free | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 |
| Owner occupied | | | | | | | | | | | |
| With mortgage | 17 | 12 | 16 | 27 | 37 | 47 | 55 | 62 | 69 | 68 | 41 |
| Rental purchase | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Owned outright | 36 | 28 | 25 | 32 | 28 | 26 | 23 | 22 | 19 | 21 | 26 |
| Age of chief economic supporter | | | | | | | | | | | |
| Under 25 | 10 | 6 | 6 | 2 | 4 | 4 | 3 | 3 | 2 | 2 | 4 |
| Over 24 and under 35 | 15 | 16 | 13 | 13 | 15 | 18 | 21 | 21 | 26 | 26 | 18 |
| Over 34 and under 45 | 18 | 18 | 12 | 17 | 20 | 21 | 21 | 21 | 24 | 27 | 20 |
| Over 44 and under 55 | 13 | 8 | 10 | 14 | 16 | 19 | 21 | 26 | 28 | 26 | 18 |
| Over 54 and under 65 | 15 | 11 | 12 | 17 | 14 | 14 | 17 | 17 | 12 | 12 | 14 |
| Over 64 and under 75 | 10 | 21 | 22 | 22 | 17 | 13 | 9 | 7 | 6 | 6 | 13 |
| Over 74 | 18 | 20 | 25 | 15 | 14 | 10 | 8 | 5 | 3 | 3 | 12 |
| Employment status of chief economic supporter | | | | | | | | | | | |
| Self-employed | 5 | 4 | 4 | 5 | 7 | 6 | 9 | 7 | 8 | 16 | 7 |
| Full-time employee at work | 5 | 12 | 18 | 31 | 43 | 55 | 63 | 67 | 74 | 70 | 44 |
| Part-time employee at work | 10 | 7 | 8 | 8 | 5 | 6 | 5 | 6 | 4 | 4 | 6 |
| Unemployed | 10 | 10 | 5 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | 5 |
| Unoccupied and under minimum NI age | 40 | 26 | 17 | 15 | 10 | 7 | 5 | 5 | 4 | 1 | 13 |
| Retired/unoccupied over minimum NI age | 29 | 40 | 48 | 37 | 32 | 23 | 15 | 13 | 7 | 6 | 25 |
| Other | 1 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | 0 |

TABLE 3A (Appendix 1): Average incomes, taxes and benefits by decile groups of NON-RETIRED households, 1999–2000

| | Decile groups of non-retired households ranked by equivalised disposable income | | | | | | | | | | All such households |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| <i>Decile points (equivalised £)</i> | 7 619 | 9 978 | 12 548 | 15 195 | 17 624 | 20 276 | 23 604 | 28 571 | 36 386 | | |
| Number of households in the population ('000s) | 1 881 | 1 886 | 1 884 | 1 884 | 1 887 | 1 884 | 1 884 | 1 886 | 1 886 | 1 885 | 18 847 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 1 707 | 4 604 | 10 159 | 14 607 | 19 005 | 22 146 | 26 505 | 32 290 | 36 019 | 50 319 | 21 736 |
| Imputed income from benefits in kind | 8 | 19 | 44 | 114 | 203 | 227 | 418 | 540 | 775 | 1 517 | 387 |
| Self-employment income | 434 | 765 | 770 | 1 659 | 1 487 | 2 310 | 2 045 | 2 046 | 3 714 | 17 649 | 3 288 |
| Occupational pensions, annuities | 142 | 159 | 316 | 474 | 617 | 957 | 848 | 923 | 1 308 | 1 805 | 755 |
| Investment income | 125 | 160 | 181 | 329 | 390 | 507 | 491 | 935 | 1 065 | 5 286 | 947 |
| Other income | 211 | 247 | 214 | 161 | 271 | 162 | 305 | 183 | 207 | 258 | 222 |
| Total | 2 628 | 5 954 | 11 684 | 17 344 | 21 973 | 26 309 | 30 613 | 36 918 | 43 088 | 76 834 | 27 334 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 106 | 202 | 389 | 498 | 473 | 355 | 271 | 228 | 262 | 246 | 303 |
| Job seeker's allowance (Contribution based) | 95 | 59 | 37 | 17 | 20 | 7 | 19 | 12 | 8 | 4 | 28 |
| Incapacity benefit | 342 | 662 | 594 | 495 | 296 | 258 | 154 | 137 | 81 | 43 | 306 |
| Widows' benefits | 54 | 52 | 66 | 38 | 60 | 48 | 31 | 4 | 51 | 4 | 41 |
| Statutory maternity pay / Allowance | 2 | 9 | 17 | 21 | 34 | 38 | 40 | 61 | 60 | 57 | 34 |
| Non-contributory | | | | | | | | | | | |
| Income support | 1 297 | 1 262 | 675 | 376 | 244 | 97 | 51 | 23 | 27 | 1 | 405 |
| Child benefit | 684 | 734 | 622 | 526 | 487 | 352 | 327 | 322 | 225 | 230 | 451 |
| Housing benefit | 814 | 1 195 | 687 | 345 | 223 | 94 | 36 | 1 | 30 | - | 342 |
| Job seeker's allowance (Income based) | 300 | 174 | 85 | 54 | 37 | 22 | 17 | 10 | 11 | 6 | 72 |
| Invalid care allowance | 35 | 59 | 53 | 45 | 43 | 35 | 8 | 7 | 4 | 0 | 29 |
| Attendance allowance | 0 | 4 | 23 | 23 | 14 | 37 | 16 | 0 | 12 | - | 13 |
| Disability living allowance/ Disabled Persons Tax Credit | 108 | 191 | 333 | 390 | 336 | 171 | 125 | 64 | 30 | 24 | 177 |
| War pensions / War widows' pensions | - | 6 | 22 | 51 | 2 | 11 | 27 | 3 | - | 13 | 13 |
| Severe disablement allowance | 29 | 26 | 57 | 48 | 59 | 24 | 21 | 18 | - | 10 | 29 |
| Industrial injury disablement benefit | 4 | 37 | 40 | 26 | 33 | 11 | 10 | 14 | 8 | 41 | 22 |
| Student support | 145 | 50 | 59 | 32 | 132 | 46 | 112 | 28 | 69 | 6 | 68 |
| Government training schemes | 38 | 22 | 56 | 55 | 70 | 1 | 8 | 1 | 6 | 1 | 26 |
| Family credit / Working Families Tax Credit | 189 | 368 | 215 | 116 | 58 | 25 | 3 | 2 | 0 | - | 98 |
| Other non-contributory benefits | 27 | 30 | 50 | 21 | 8 | 3 | 1 | 14 | 2 | 1 | 16 |
| Total cash benefits | 4 267 | 5 139 | 4 082 | 3 173 | 2 630 | 1 637 | 1 277 | 950 | 887 | 691 | 2 473 |
| Gross income | 6 895 | 11 093 | 15 766 | 20 517 | 24 602 | 27 946 | 31 890 | 37 867 | 43 975 | 77 525 | 29 808 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 254 | 555 | 1 314 | 2 114 | 2 810 | 3 658 | 4 470 | 5 806 | 7 146 | 15 262 | 4 339 |
| less: Tax relief at source ¹ | 27 | 30 | 53 | 77 | 89 | 102 | 113 | 136 | 138 | 137 | 90 |
| Employees' NI contributions | 125 | 299 | 643 | 975 | 1 253 | 1 494 | 1 813 | 2 118 | 2 310 | 2 355 | 1 338 |
| Local taxes ² | 708 | 750 | 810 | 846 | 906 | 914 | 934 | 993 | 1 014 | 1 167 | 904 |
| less: Council tax benefit / Rate rebates | 268 | 245 | 133 | 90 | 64 | 40 | 35 | 33 | 26 | 40 | 97 |
| Total | 792 | 1 330 | 2 581 | 3 768 | 4 815 | 5 924 | 7 069 | 8 747 | 10 306 | 18 607 | 6 394 |
| Disposable income | 6 103 | 9 764 | 13 185 | 16 749 | 19 788 | 22 022 | 24 822 | 29 120 | 33 669 | 58 918 | 23 414 |
| <i>Equivalised disposable income</i> | 5 108 | 8 741 | 11 280 | 13 888 | 16 409 | 18 926 | 21 899 | 26 086 | 32 048 | 56 180 | 21 056 |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 982 | 1 017 | 1 393 | 1 707 | 1 908 | 1 998 | 2 140 | 2 522 | 2 583 | 3 440 | 1 969 |
| Duty on tobacco | 348 | 422 | 415 | 429 | 325 | 381 | 299 | 313 | 248 | 170 | 335 |
| Duty on beer and cider | 81 | 68 | 101 | 143 | 161 | 152 | 164 | 155 | 154 | 150 | 133 |
| Duty on wines and spirits | 73 | 49 | 91 | 120 | 137 | 128 | 157 | 169 | 182 | 236 | 134 |
| Duty on hydrocarbon oils | 270 | 260 | 365 | 472 | 532 | 584 | 626 | 645 | 672 | 716 | 514 |
| Vehicle excise duty | 70 | 71 | 101 | 128 | 146 | 162 | 171 | 185 | 184 | 182 | 140 |
| Television licences | 81 | 89 | 93 | 94 | 96 | 95 | 95 | 96 | 96 | 98 | 93 |
| Stamp duty on house purchase | 21 | 18 | 31 | 39 | 52 | 61 | 68 | 89 | 94 | 170 | 64 |
| Customs duties | 20 | 20 | 27 | 32 | 35 | 36 | 40 | 45 | 47 | 62 | 36 |
| Betting taxes | 49 | 29 | 60 | 63 | 66 | 61 | 88 | 60 | 84 | 50 | 61 |
| Insurance premium tax | 13 | 13 | 20 | 28 | 31 | 35 | 39 | 45 | 47 | 61 | 33 |
| Air passenger duty | 4 | 5 | 7 | 9 | 19 | 21 | 24 | 32 | 36 | 50 | 21 |
| Camelot National lottery fund | 36 | 48 | 60 | 81 | 80 | 82 | 78 | 76 | 68 | 49 | 66 |
| Other | 7 | 5 | 11 | 12 | 8 | 23 | 14 | 8 | 9 | 12 | 11 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 146 | 148 | 196 | 233 | 260 | 268 | 292 | 334 | 348 | 458 | 268 |
| Employers' NI contributions | 218 | 222 | 293 | 348 | 389 | 401 | 437 | 500 | 520 | 685 | 401 |
| Duty on hydrocarbon oils | 117 | 119 | 157 | 187 | 209 | 215 | 234 | 268 | 279 | 367 | 215 |
| Vehicle excise duty | 16 | 16 | 22 | 26 | 29 | 30 | 32 | 37 | 38 | 51 | 30 |
| Other | 115 | 117 | 155 | 184 | 205 | 211 | 231 | 264 | 275 | 362 | 212 |
| Total indirect taxes | 2 666 | 2 736 | 3 597 | 4 334 | 4 688 | 4 943 | 5 229 | 5 841 | 5 964 | 7 370 | 4 737 |
| Post-tax income | 3 437 | 7 028 | 9 588 | 12 415 | 15 100 | 17 079 | 19 593 | 23 279 | 27 705 | 51 548 | 18 677 |
| Benefits in kind | | | | | | | | | | | |
| Education | 3 606 | 2 553 | 2 258 | 1 862 | 1 935 | 1 396 | 1 300 | 1 103 | 773 | 630 | 1 742 |
| National health service | 1 502 | 1 721 | 1 791 | 1 730 | 1 650 | 1 559 | 1 457 | 1 460 | 1 391 | 1 309 | 1 557 |
| Housing subsidy | 63 | 79 | 49 | 33 | 27 | 18 | 17 | 13 | 6 | 2 | 31 |
| Rail travel subsidy | 31 | 11 | 21 | 20 | 35 | 23 | 39 | 43 | 60 | 91 | 37 |
| Bus travel subsidy | 15 | 16 | 24 | 23 | 21 | 15 | 16 | 11 | 13 | 7 | 16 |
| School meals and welfare milk | 117 | 95 | 48 | 24 | 14 | 14 | 9 | 4 | 7 | 2 | 33 |
| Total | 5 333 | 4 475 | 4 192 | 3 692 | 3 681 | 3 024 | 2 839 | 2 633 | 2 250 | 2 041 | 3 416 |
| Final income | 8 771 | 11 503 | 13 780 | 16 107 | 18 781 | 20 102 | 22 432 | 25 912 | 29 956 | 53 589 | 22 093 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 3B (Appendix 1): Household characteristics of decile groups of NON-RETIRED households, 1999–2000

| | Decile groups of non-retired households ranked by equivalised disposable income | | | | | | | | | | All such households |
|--|---|------|------|------|------|------|------|------|------|------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (number) | | | | | | | | | | | |
| People | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.5 | 2.5 | 2.2 | 2.2 | 2.6 |
| Adults | 1.7 | 1.7 | 1.8 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 |
| Men | 0.8 | 0.7 | 0.9 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 |
| Women | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.9 |
| Children | 1.1 | 1.1 | 1.0 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | 0.3 | 0.4 | 0.7 |
| Economically active people | 0.7 | 0.9 | 1.3 | 1.6 | 1.7 | 1.8 | 1.8 | 1.9 | 1.8 | 1.7 | 1.5 |
| Retired people | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| People in full-time education | 1.20 | 0.97 | 0.84 | 0.73 | 0.70 | 0.50 | 0.45 | 0.42 | 0.31 | 0.33 | 0.65 |
| In state primary schools | 0.52 | 0.53 | 0.42 | 0.36 | 0.28 | 0.22 | 0.17 | 0.15 | 0.09 | 0.11 | 0.29 |
| In state secondary schools | 0.31 | 0.30 | 0.28 | 0.25 | 0.24 | 0.19 | 0.15 | 0.15 | 0.10 | 0.05 | 0.20 |
| In further and higher education | 0.31 | 0.12 | 0.12 | 0.08 | 0.14 | 0.07 | 0.11 | 0.08 | 0.07 | 0.05 | 0.11 |
| In other educational establishments | 0.06 | 0.03 | 0.02 | 0.04 | 0.04 | 0.03 | 0.03 | 0.04 | 0.03 | 0.12 | 0.04 |
| Composition (percentages) | | | | | | | | | | | |
| Household type | | | | | | | | | | | |
| Non-retired | | | | | | | | | | | |
| 1 adult | 29 | 24 | 20 | 20 | 20 | 22 | 21 | 22 | 27 | 27 | 23 |
| 1 adult men | 16 | 15 | 10 | 11 | 13 | 14 | 13 | 14 | 16 | 20 | 14 |
| 1 adult women | 13 | 9 | 10 | 8 | 6 | 8 | 8 | 8 | 10 | 7 | 9 |
| 2 adults | 16 | 12 | 22 | 23 | 24 | 30 | 31 | 32 | 39 | 41 | 27 |
| 3 or more adults | 6 | 8 | 7 | 12 | 13 | 16 | 16 | 14 | 10 | 7 | 11 |
| 1 adult with children | 22 | 27 | 13 | 6 | 5 | 3 | 2 | 3 | 1 | 1 | 8 |
| 2 adults with 1 child | 5 | 7 | 10 | 10 | 9 | 9 | 11 | 12 | 12 | 11 | 10 |
| 2 adults with 2 children | 9 | 9 | 12 | 16 | 16 | 10 | 11 | 13 | 7 | 7 | 11 |
| 2 adults with 3 or more children | 8 | 10 | 9 | 6 | 5 | 4 | 3 | 1 | 1 | 3 | 5 |
| 3 or more adults with children | 5 | 4 | 5 | 8 | 8 | 6 | 5 | 4 | 4 | 3 | 5 |
| Household tenure | | | | | | | | | | | |
| Rented | 62 | 71 | 48 | 36 | 27 | 21 | 19 | 15 | 12 | 11 | 32 |
| Local authority rented | 34 | 41 | 26 | 17 | 12 | 7 | 7 | 3 | 2 | 1 | 15 |
| Housing association or RSL | 8 | 14 | 8 | 6 | 4 | 2 | 2 | 1 | 1 | 0 | 5 |
| Other rented unfurnished | 5 | 8 | 7 | 6 | 4 | 4 | 3 | 3 | 3 | 3 | 5 |
| Rented furnished | 14 | 7 | 7 | 6 | 6 | 5 | 7 | 7 | 5 | 6 | 7 |
| Rent free | 2 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| Owner occupied | 38 | 29 | 52 | 64 | 73 | 79 | 81 | 85 | 88 | 89 | 68 |
| With mortgage | 23 | 19 | 36 | 49 | 56 | 62 | 67 | 73 | 75 | 72 | 53 |
| Rental purchase | 0 | 0 | 0 | 0 | 0 | 1 | 1 | - | 1 | 0 | 0 |
| Owned outright | 15 | 10 | 16 | 15 | 17 | 17 | 13 | 11 | 13 | 17 | 14 |
| Age of chief economic supporter | | | | | | | | | | | |
| Under 25 | 15 | 11 | 7 | 6 | 5 | 4 | 4 | 4 | 2 | 1 | 6 |
| Over 24 and under 35 | 23 | 27 | 23 | 20 | 23 | 22 | 27 | 27 | 27 | 27 | 25 |
| Over 34 and under 45 | 27 | 29 | 27 | 28 | 26 | 26 | 26 | 26 | 24 | 29 | 27 |
| Over 44 and under 55 | 18 | 15 | 19 | 24 | 25 | 24 | 27 | 28 | 31 | 28 | 24 |
| Over 54 and under 65 | 15 | 15 | 19 | 16 | 14 | 20 | 13 | 15 | 12 | 12 | 15 |
| Over 64 and under 75 | 1 | 3 | 3 | 5 | 5 | 3 | 2 | 1 | 2 | 3 | 3 |
| Over 74 | 0 | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| Employment status of chief economic supporter | | | | | | | | | | | |
| Self-employed | 7 | 8 | 7 | 10 | 8 | 11 | 8 | 8 | 10 | 19 | 9 |
| Full-time employee at work | 8 | 24 | 45 | 59 | 67 | 71 | 79 | 81 | 80 | 74 | 59 |
| Part-time employee at work | 14 | 14 | 13 | 8 | 7 | 7 | 7 | 5 | 4 | 5 | 9 |
| Unemployed | 15 | 13 | 8 | 6 | 5 | 4 | 3 | 4 | 3 | 1 | 6 |
| Unoccupied and under minimum NI age | 54 | 38 | 23 | 12 | 8 | 5 | 2 | 2 | 2 | 0 | 15 |
| Retired/unoccupied over minimum NI age | 0 | 2 | 4 | 5 | 4 | 1 | 2 | 0 | 1 | 1 | 2 |
| Other | 2 | 1 | 0 | 0 | 0 | - | - | - | - | - | 0 |

TABLE 4A (Appendix 1): Average incomes, taxes and benefits by decile groups of RETIRED households, 1999–2000

| | Decile groups of retired households ranked by equivalised disposable income | | | | | | | | | | All such households |
|--|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| <i>Decile points (equivalised £)</i> | 6 886 | 8 266 | 9 280 | 10 150 | 11 245 | 12 671 | 14 607 | 17 338 | 21 921 | | |
| Number of households in the population ('000s) | 647 | 649 | 648 | 648 | 650 | 649 | 648 | 649 | 649 | 650 | 6 487 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 42 | 42 | 2 | 27 | 6 | 362 | 174 | 369 | 360 | 1 301 | 268 |
| Imputed income from benefits in kind | 2 | - | - | - | - | - | - | - | - | 4 | 1 |
| Self-employment income | 2 | - | - | - | - | - | 50 | - | 38 | 169 | 26 |
| Occupational pensions, annuities | 465 | 921 | 1 086 | 1 417 | 2 332 | 2 758 | 3 790 | 5 637 | 8 401 | 17 780 | 4 459 |
| Investment income | 287 | 494 | 469 | 367 | 549 | 762 | 1 260 | 1 599 | 2 283 | 8 700 | 1 677 |
| Other income | 0 | 55 | 97 | 92 | 65 | 61 | 42 | 106 | 150 | 197 | 86 |
| Total | 797 | 1 512 | 1 654 | 1 903 | 2 952 | 3 943 | 5 317 | 7 711 | 11 231 | 28 149 | 6 517 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 3 735 | 4 595 | 4 663 | 4 536 | 4 610 | 4 974 | 4 607 | 4 943 | 4 657 | 4 557 | 4 588 |
| Job seeker's allowance (Contribution based) | 24 | 45 | 35 | - | 19 | 2 | 5 | 5 | - | - | 13 |
| Incapacity benefit | 63 | 54 | 66 | 5 | 104 | 78 | 194 | 95 | 148 | 130 | 94 |
| Widows' benefits | 39 | 42 | 19 | 22 | - | 33 | 83 | 54 | 71 | 22 | 38 |
| Statutory maternity pay/ Allowance | - | - | - | - | - | - | - | - | - | - | - |
| Non-contributory | | | | | | | | | | | |
| Income support | 176 | 144 | 274 | 209 | 229 | 276 | 362 | 441 | 510 | 124 | 274 |
| Child benefit | 6 | 6 | - | - | 8 | - | 16 | - | 10 | 14 | 6 |
| Housing benefit | 50 | 206 | 575 | 819 | 918 | 612 | 381 | 484 | 546 | 11 | 460 |
| Job seeker's allowance (Income based) | - | 34 | 2 | - | 26 | - | - | - | - | - | 6 |
| Invalid care allowance | - | - | 16 | 13 | 12 | 23 | - | 34 | 33 | 17 | 15 |
| Attendance allowance | - | 112 | 218 | 128 | 340 | 289 | 492 | 537 | 645 | 180 | 294 |
| Disability living allowance/ Disabled Persons Tax Credit | 58 | 51 | 104 | 77 | 67 | 245 | 404 | 362 | 288 | 63 | 172 |
| War pensions / War widows' pensions | - | 8 | 14 | - | 39 | 70 | 42 | 52 | 358 | 344 | 93 |
| Severe disablement allowance | 12 | - | - | 32 | 32 | 31 | 24 | 26 | 33 | - | 19 |
| Industrial injury disablement benefit | - | 7 | 15 | 23 | 47 | 56 | 12 | 26 | 39 | 29 | 26 |
| Student support | 22 | - | - | - | - | - | 3 | - | - | 71 | 10 |
| Government training schemes | - | 12 | - | - | 7 | - | 8 | 2 | - | - | 3 |
| Family credit / Working Families Tax Credit | - | - | - | - | - | - | 19 | - | - | - | 2 |
| Other non-contributory benefits | 93 | 38 | 146 | 53 | 36 | 18 | 58 | 25 | 32 | 44 | 54 |
| Total cash benefits | 4 279 | 5 353 | 6 146 | 5 919 | 6 494 | 6 707 | 6 709 | 7 085 | 7 371 | 5 606 | 6 167 |
| Gross income | 5 076 | 6 865 | 7 800 | 7 822 | 9 446 | 10 650 | 12 026 | 14 795 | 18 602 | 33 755 | 12 684 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 75 | 109 | 114 | 154 | 338 | 477 | 650 | 1 000 | 1 694 | 5 247 | 986 |
| <i>less: Tax relief at source¹</i> | 6 | 6 | 4 | 3 | 6 | 4 | 7 | 7 | 10 | 18 | 7 |
| Employees' NI contributions | 4 | 7 | 0 | 2 | 4 | 18 | 8 | 12 | 13 | 94 | 16 |
| Local taxes ² | 878 | 805 | 804 | 777 | 812 | 812 | 831 | 899 | 954 | 1 213 | 879 |
| <i>less: Council tax benefit / Rate rebates</i> | 212 | 168 | 197 | 211 | 182 | 137 | 135 | 124 | 100 | 34 | 150 |
| Total | 739 | 746 | 717 | 719 | 965 | 1 166 | 1 346 | 1 781 | 2 551 | 6 502 | 1 723 |
| Disposable income | 4 337 | 6 119 | 7 083 | 7 103 | 8 481 | 9 484 | 10 679 | 13 014 | 16 051 | 27 253 | 10 961 |
| <i>Equivalised disposable income</i> | 5 562 | 7 661 | 8 788 | 9 681 | 10 703 | 11 894 | 13 592 | 15 818 | 19 388 | 31 498 | 13 458 |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 787 | 575 | 564 | 480 | 706 | 786 | 886 | 1 121 | 1 256 | 1 878 | 904 |
| Duty on tobacco | 66 | 105 | 131 | 86 | 129 | 162 | 162 | 104 | 102 | 99 | 115 |
| Duty on beer and cider | 28 | 24 | 26 | 26 | 29 | 45 | 42 | 45 | 31 | 53 | 35 |
| Duty on wines and spirits | 46 | 37 | 52 | 34 | 83 | 64 | 51 | 96 | 115 | 172 | 75 |
| Duty on hydrocarbon oils | 145 | 119 | 122 | 86 | 163 | 145 | 155 | 275 | 292 | 447 | 195 |
| Vehicle excise duty | 68 | 57 | 52 | 45 | 69 | 68 | 75 | 96 | 110 | 180 | 82 |
| Television licences | 96 | 90 | 88 | 88 | 88 | 91 | 92 | 89 | 91 | 99 | 91 |
| Stamp duty on house purchase | 25 | 22 | 13 | 11 | 14 | 15 | 22 | 26 | 30 | 77 | 25 |
| Customs duties | 15 | 13 | 12 | 11 | 15 | 16 | 18 | 20 | 23 | 35 | 18 |
| Betting taxes | 25 | 26 | 49 | 39 | 31 | 56 | 45 | 43 | 48 | 54 | 42 |
| Insurance premium tax | 15 | 11 | 10 | 11 | 13 | 14 | 19 | 26 | 29 | 67 | 21 |
| Air passenger duty | 8 | 4 | 1 | 5 | 5 | 6 | 13 | 10 | 16 | 32 | 10 |
| Camelot National lottery fund | 33 | 35 | 52 | 44 | 44 | 52 | 47 | 48 | 56 | 57 | 47 |
| Other | 2 | 3 | 2 | 1 | 2 | 7 | 8 | 2 | 12 | 25 | 7 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 108 | 93 | 92 | 82 | 107 | 117 | 129 | 148 | 173 | 256 | 131 |
| Employers' NI contributions | 161 | 140 | 137 | 122 | 160 | 176 | 193 | 222 | 258 | 383 | 195 |
| Duty on hydrocarbon oils | 87 | 75 | 74 | 66 | 86 | 94 | 104 | 119 | 138 | 205 | 105 |
| Vehicle excise duty | 12 | 10 | 10 | 9 | 12 | 13 | 14 | 16 | 19 | 28 | 14 |
| Other | 85 | 74 | 73 | 65 | 85 | 93 | 102 | 117 | 136 | 202 | 103 |
| Total indirect taxes | 1 810 | 1 512 | 1 560 | 1 311 | 1 840 | 2 021 | 2 176 | 2 623 | 2 937 | 4 350 | 2 214 |
| Post-tax income | 2 527 | 4 607 | 5 523 | 5 792 | 6 641 | 7 463 | 8 503 | 10 391 | 13 114 | 22 903 | 8 746 |
| Benefits in kind | | | | | | | | | | | |
| Education | 192 | 21 | - | - | 68 | 55 | 81 | 44 | 38 | 59 | 56 |
| National health service | 2 947 | 2 975 | 3 281 | 2 911 | 2 930 | 2 757 | 2 894 | 2 866 | 2 989 | 2 818 | 2 937 |
| Housing subsidy | 19 | 28 | 55 | 62 | 73 | 61 | 34 | 33 | 27 | 3 | 39 |
| Rail travel subsidy | 8 | 8 | 4 | 0 | 2 | 6 | 9 | 3 | 16 | 22 | 8 |
| Bus travel subsidy | 63 | 68 | 67 | 71 | 62 | 62 | 52 | 48 | 58 | 49 | 60 |
| School meals and welfare milk | 3 | 0 | - | - | 2 | - | 0 | - | - | - | 0 |
| Total | 3 232 | 3 100 | 3 408 | 3 044 | 3 136 | 2 941 | 3 070 | 2 993 | 3 128 | 2 952 | 3 100 |
| Final income | 5 759 | 7 707 | 8 931 | 8 836 | 9 778 | 10 404 | 11 573 | 13 384 | 16 242 | 25 854 | 11 847 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 4B (Appendix 1): Household characteristics of decile groups of RETIRED households, 1999-2000

| | Decile groups of retired households ranked by equivalised disposable income | | | | | | | | | | All such households |
|--|---|------|------|------|------|------|------|------|------|------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (number) | | | | | | | | | | | |
| People | 1.5 | 1.5 | 1.5 | 1.3 | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 | 1.7 | 1.5 |
| Adults | 1.44 | 1.46 | 1.49 | 1.31 | 1.45 | 1.47 | 1.42 | 1.54 | 1.53 | 1.63 | 1.47 |
| Men | 0.55 | 0.57 | 0.63 | 0.48 | 0.55 | 0.62 | 0.56 | 0.64 | 0.65 | 0.78 | 0.60 |
| Women | 0.89 | 0.89 | 0.87 | 0.83 | 0.90 | 0.85 | 0.86 | 0.90 | 0.88 | 0.86 | 0.87 |
| Children | 0.03 | 0.02 | - | - | 0.01 | 0.01 | 0.02 | - | 0.01 | 0.02 | 0.01 |
| Economically active people | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Retired people | 1.3 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.5 | 1.4 | 1.5 | 1.4 |
| People in full-time education | 0.06 | 0.02 | - | - | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.03 | 0.02 |
| Composition (percentages) | | | | | | | | | | | |
| Household type | | | | | | | | | | | |
| Retired | | | | | | | | | | | |
| 1 adult | 61 | 57 | 54 | 69 | 58 | 58 | 59 | 51 | 51 | 40 | 56 |
| 1 adult men | 13 | 11 | 14 | 18 | 12 | 17 | 17 | 13 | 14 | 17 | 15 |
| 1 adult women | 48 | 46 | 40 | 51 | 46 | 41 | 42 | 38 | 37 | 23 | 41 |
| 2 or more adults | 39 | 43 | 46 | 31 | 42 | 42 | 41 | 49 | 49 | 60 | 44 |
| Household tenure | | | | | | | | | | | |
| Rented | | | | | | | | | | | |
| Local authority rented | 8 | 22 | 32 | 42 | 37 | 28 | 22 | 20 | 16 | 1 | 23 |
| Housing association or RSL | 4 | 5 | 9 | 9 | 14 | 11 | 8 | 4 | 7 | 1 | 7 |
| Other rented unfurnished | 1 | 1 | 3 | 2 | 1 | 3 | 3 | 4 | 3 | 0 | 2 |
| Rented furnished | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Rent free | 0 | 4 | 4 | 4 | 2 | 2 | 0 | 3 | 2 | 0 | 2 |
| Owner occupied | | | | | | | | | | | |
| With mortgage | 3 | 6 | 3 | 2 | 4 | 4 | 5 | 9 | 9 | 10 | 5 |
| Rental purchase | 1 | - | - | - | - | - | - | - | - | - | 0 |
| Owned outright | 83 | 62 | 48 | 41 | 42 | 51 | 62 | 59 | 63 | 87 | 60 |
| Age of chief economic supporter | | | | | | | | | | | |
| Under 25 | - | - | - | - | - | - | - | - | - | - | - |
| Over 24 and under 35 | - | - | - | - | - | - | - | - | - | - | - |
| Over 34 and under 45 | - | - | - | - | 1 | 1 | 1 | - | 1 | 1 | 0 |
| Over 44 and under 55 | 1 | - | - | 0 | - | 1 | 1 | - | 1 | 3 | 1 |
| Over 54 and under 65 | 16 | 12 | 4 | 7 | 10 | 10 | 10 | 14 | 17 | 17 | 12 |
| Over 64 and under 75 | 29 | 41 | 46 | 41 | 47 | 52 | 43 | 48 | 41 | 43 | 43 |
| Over 74 | 54 | 46 | 50 | 52 | 42 | 37 | 45 | 39 | 41 | 37 | 44 |
| Employment status of chief economic supporter | | | | | | | | | | | |
| Self-employed | 1 | - | - | - | - | - | - | - | - | - | 0 |
| Full-time employee at work | - | - | - | - | - | - | - | - | - | - | - |
| Part-time employee at work | - | - | - | 0 | - | - | 0 | - | - | - | 0 |
| Unemployed | - | - | - | - | - | - | - | - | - | - | - |
| Unoccupied and under minimum NI age | 11 | 6 | 3 | 3 | 6 | 7 | 7 | 6 | 13 | 15 | 8 |
| Retired/unoccupied over minimum NI age | 88 | 94 | 97 | 97 | 94 | 93 | 92 | 94 | 87 | 85 | 92 |

TABLE 5 (Appendix 1): Average incomes, taxes and benefits by decile groups of NON-RETIRED households WITHOUT CHILDREN, 1999–2000

| | Decile groups of non-retired households without children, ranked by equivalised disposable income | | | | | | | | | | All such households |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| Decile points (equivalised £) | 8 142 | 11 479 | 14 533 | 17 243 | 19 544 | 22 384 | 26 268 | 31 336 | 39 006 | | |
| Number of households in the population ('000s) | 1 152 | 1 151 | 1 153 | 1 152 | 1 151 | 1 153 | 1 152 | 1 152 | 1 151 | 1 154 | 11 521 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 1 651 | 4 646 | 9 372 | 14 375 | 18 469 | 21 873 | 25 473 | 31 275 | 34 821 | 51 083 | 21 304 |
| Imputed income from benefits in kind | 8 | 52 | 8 | 30 | 123 | 180 | 315 | 391 | 747 | 1 551 | 341 |
| Self-employment income | 349 | 900 | 898 | 1 127 | 2 045 | 1 349 | 2 414 | 2 266 | 3 571 | 12 409 | 2 733 |
| Occupational pensions, annuities | 280 | 340 | 636 | 788 | 1 060 | 1 304 | 1 149 | 1 465 | 1 320 | 2 497 | 1 084 |
| Investment income | 224 | 258 | 288 | 307 | 475 | 556 | 679 | 881 | 1 174 | 4 865 | 971 |
| Other income | 211 | 115 | 61 | 176 | 51 | 159 | 208 | 136 | 118 | 117 | 135 |
| Total | 2 723 | 6 311 | 11 262 | 16 802 | 22 223 | 25 421 | 30 239 | 36 413 | 41 751 | 72 522 | 26 567 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 185 | 493 | 859 | 790 | 477 | 465 | 389 | 280 | 307 | 350 | 460 |
| Job seeker's allowance (Contribution based) | 119 | 104 | 23 | 25 | 12 | 23 | 19 | 11 | 8 | 6 | 35 |
| Incapacity benefit | 352 | 1 099 | 822 | 447 | 352 | 218 | 151 | 156 | 68 | 41 | 371 |
| Widows' benefits | 93 | 103 | 51 | 36 | 44 | 47 | 14 | 50 | 37 | 12 | 49 |
| Statutory Maternity Pay/ Allowance | 0 | - | - | - | 7 | - | - | - | - | - | 1 |
| Non-contributory | | | | | | | | | | | |
| Income support | 514 | 540 | 395 | 338 | 135 | 82 | 32 | 15 | 43 | 2 | 210 |
| Child benefit | 6 | 4 | 9 | 4 | 10 | - | 8 | 2 | - | 3 | 4 |
| Housing benefit | 538 | 919 | 482 | 242 | 127 | 77 | 29 | 2 | 23 | - | 244 |
| Job seeker's allowance (Income based) | 332 | 204 | 40 | 32 | 26 | 15 | 19 | 10 | 12 | 1 | 69 |
| Invalid care allowance | 20 | 66 | 45 | 36 | 50 | 17 | - | - | - | - | 23 |
| Attendance allowance | - | 28 | 36 | 22 | 56 | 22 | 13 | 10 | 10 | - | 20 |
| Disability living allowance/ Disabled Persons Tax Credit | 126 | 208 | 581 | 418 | 230 | 104 | 61 | 57 | 21 | 20 | 183 |
| War pensions / War widows' pensions | 9 | 5 | 86 | 4 | 4 | 54 | 5 | - | - | 21 | 19 |
| Severe disablement allowance | 35 | 53 | 61 | 103 | 23 | 24 | 22 | 18 | - | 9 | 35 |
| Industrial injury disablement benefit | 37 | 22 | 42 | 31 | 37 | 6 | 30 | 13 | - | 68 | 29 |
| Student support | 165 | 67 | 34 | 181 | 51 | 143 | 20 | 78 | 19 | - | 76 |
| Government training schemes | 39 | 67 | 19 | 61 | 0 | - | 15 | 1 | 10 | 1 | 21 |
| Family credit / Working Families Tax Credit | 11 | 1 | 12 | 5 | 5 | - | - | - | - | - | 3 |
| Other non-contributory benefits | 26 | 61 | 31 | 4 | 14 | 2 | 1 | 25 | 1 | 1 | 17 |
| Total cash benefits | 2 608 | 4 042 | 3 629 | 2 780 | 1 661 | 1 302 | 828 | 726 | 558 | 535 | 1 867 |
| Gross income | 5 331 | 10 353 | 14 891 | 19 582 | 23 884 | 26 723 | 31 066 | 37 138 | 42 308 | 73 057 | 28 433 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 279 | 618 | 1 226 | 2 031 | 2 822 | 3 530 | 4 351 | 5 709 | 7 080 | 14 588 | 4 223 |
| less: Tax relief at source ¹ | 24 | 23 | 42 | 54 | 74 | 85 | 111 | 119 | 131 | 127 | 79 |
| Employees' NI contributions | 124 | 291 | 590 | 941 | 1 266 | 1 494 | 1 764 | 2 167 | 2 270 | 2 407 | 1 331 |
| Local taxes ² | 637 | 743 | 797 | 802 | 845 | 863 | 888 | 944 | 975 | 1 115 | 861 |
| less: Council tax benefit / Rate rebates | 204 | 194 | 118 | 77 | 42 | 46 | 33 | 37 | 24 | 49 | 83 |
| Total | 812 | 1 435 | 2 454 | 3 643 | 4 816 | 5 756 | 6 859 | 8 663 | 10 169 | 17 934 | 6 254 |
| Disposable income | 4 519 | 8 917 | 12 438 | 15 938 | 19 068 | 20 967 | 24 207 | 28 475 | 32 139 | 55 124 | 22 179 |
| Equivalised disposable income | 4 910 | 9 776 | 12 962 | 15 856 | 18 362 | 20 918 | 24 108 | 28 675 | 34 613 | 59 929 | 23 011 |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 939 | 979 | 1 277 | 1 578 | 1 764 | 1 814 | 2 249 | 2 213 | 2 472 | 3 259 | 1 854 |
| Duty on tobacco | 313 | 430 | 441 | 375 | 431 | 332 | 396 | 276 | 267 | 168 | 343 |
| Duty on beer and cider | 104 | 91 | 130 | 174 | 160 | 164 | 174 | 163 | 164 | 158 | 148 |
| Duty on wines and spirits | 91 | 71 | 111 | 124 | 127 | 141 | 200 | 198 | 163 | 247 | 147 |
| Duty on hydrocarbon oils | 244 | 232 | 328 | 419 | 524 | 497 | 626 | 637 | 637 | 707 | 485 |
| Vehicle excise duty | 64 | 72 | 102 | 119 | 150 | 159 | 166 | 176 | 177 | 174 | 136 |
| Television licences | 75 | 86 | 91 | 94 | 92 | 95 | 93 | 95 | 96 | 97 | 92 |
| Stamp duty on house purchase | 19 | 19 | 29 | 35 | 50 | 57 | 59 | 85 | 103 | 150 | 61 |
| Customs duties | 19 | 19 | 24 | 28 | 32 | 34 | 39 | 41 | 44 | 57 | 34 |
| Betting taxes | 61 | 58 | 66 | 67 | 67 | 100 | 82 | 76 | 76 | 43 | 70 |
| Insurance premium tax | 13 | 14 | 22 | 24 | 32 | 35 | 39 | 43 | 46 | 57 | 32 |
| Air passenger duty | 6 | 7 | 7 | 14 | 23 | 22 | 34 | 31 | 29 | 56 | 23 |
| Camelot National lottery fund | 39 | 50 | 79 | 85 | 92 | 78 | 89 | 78 | 69 | 47 | 71 |
| Other | 8 | 2 | 3 | 14 | 8 | 31 | 13 | 6 | 11 | 10 | 11 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 140 | 137 | 180 | 209 | 233 | 247 | 288 | 299 | 320 | 418 | 247 |
| Employers' NI contributions | 210 | 205 | 269 | 313 | 349 | 370 | 432 | 448 | 480 | 626 | 370 |
| Duty on hydrocarbon oils | 112 | 110 | 144 | 168 | 187 | 198 | 231 | 240 | 257 | 335 | 198 |
| Vehicle excise duty | 15 | 15 | 20 | 23 | 26 | 27 | 32 | 33 | 35 | 46 | 27 |
| Other | 111 | 108 | 142 | 165 | 184 | 195 | 228 | 236 | 253 | 330 | 195 |
| Total indirect taxes | 2 584 | 2 704 | 3 466 | 4 031 | 4 529 | 4 597 | 5 472 | 5 376 | 5 700 | 6 988 | 4 545 |
| Post-tax income | 1 935 | 6 214 | 8 972 | 11 908 | 14 539 | 16 370 | 18 736 | 23 099 | 26 439 | 48 136 | 17 635 |
| Benefits in kind | | | | | | | | | | | |
| Education | 2 011 | 473 | 252 | 466 | 273 | 424 | 288 | 314 | 165 | 82 | 475 |
| National health service | 940 | 1 173 | 1 350 | 1 219 | 1 286 | 1 191 | 1 130 | 1 084 | 1 027 | 1 002 | 1 140 |
| Housing subsidy | 44 | 58 | 45 | 34 | 20 | 24 | 14 | 11 | 6 | 2 | 26 |
| Rail travel subsidy | 34 | 13 | 26 | 26 | 26 | 19 | 48 | 39 | 62 | 106 | 40 |
| Bus travel subsidy | 18 | 18 | 25 | 22 | 15 | 18 | 15 | 7 | 8 | 6 | 15 |
| School meals and welfare milk | 1 | 0 | - | - | 0 | - | - | - | 0 | 0 | 0 |
| Total | 3 048 | 1 735 | 1 698 | 1 766 | 1 621 | 1 677 | 1 495 | 1 455 | 1 268 | 1 198 | 1 696 |
| Final income | 4 983 | 7 949 | 10 670 | 13 674 | 16 160 | 18 047 | 20 231 | 24 555 | 27 707 | 49 334 | 19 331 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 6 (Appendix 1): Average incomes, taxes and benefits by decile groups of NON-RETIRED households with CHILDREN, 1999–2000

| | Decile groups of non-retired households with children ranked by equivalised disposable income | | | | | | | | | | All such households |
|---|---|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| <i>Decile points (equivalised £)</i> | 7 176 | 8 666 | 10 598 | 12 515 | 14 818 | 16 851 | 19 852 | 24 153 | 30 211 | | |
| Number of households in the population ('000s) | 731 | 732 | 734 | 733 | 734 | 731 | 732 | 733 | 733 | 732 | 7 326 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 2 069 | 3 950 | 8 049 | 13 736 | 17 987 | 23 299 | 28 451 | 32 861 | 41 175 | 52 582 | 22 416 |
| Imputed income from benefits in kind | 9 | 0 | 13 | 65 | 188 | 368 | 415 | 789 | 1 130 | 1 611 | 459 |
| Self-employment income | 629 | 652 | 572 | 812 | 2 233 | 2 475 | 2 137 | 2 617 | 2 867 | 26 617 | 4 161 |
| Occupational pensions, annuities | 11 | 40 | 45 | 170 | 217 | 343 | 295 | 394 | 349 | 514 | 238 |
| Investment income | 66 | 32 | 23 | 156 | 275 | 540 | 383 | 460 | 1 121 | 6 042 | 910 |
| Other income | 196 | 303 | 289 | 375 | 296 | 350 | 439 | 422 | 320 | 593 | 358 |
| Total | 2 980 | 4 977 | 8 991 | 15 315 | 21 197 | 27 374 | 32 119 | 37 543 | 46 961 | 87 961 | 28 542 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 72 | 39 | 60 | 67 | 50 | 42 | 189 | 17 | 14 | 21 | 57 |
| Job seeker's allowance (Contribution based) | 93 | 13 | 6 | 12 | 20 | 4 | 8 | 3 | 1 | 1 | 16 |
| Incapacity benefit | 334 | 360 | 276 | 381 | 249 | 142 | 29 | 182 | 69 | 25 | 205 |
| Widows' benefits | 10 | 30 | - | 37 | 69 | 96 | 11 | 39 | - | - | 29 |
| Statutory Maternity Pay/ Allowance | 1 | 14 | 26 | 29 | 53 | 59 | 102 | 131 | 217 | 229 | 86 |
| Non-contributory | | | | | | | | | | | |
| Income support | 1 988 | 2 237 | 1 346 | 800 | 517 | 134 | 70 | 3 | 37 | 2 | 713 |
| Child benefit | 1 417 | 1 307 | 1 284 | 1 215 | 1 132 | 1 149 | 1 079 | 1 035 | 957 | 954 | 1 153 |
| Housing benefit | 1 075 | 1 495 | 1 168 | 592 | 331 | 248 | 22 | - | - | 41 | 497 |
| Job seeker's allowance (Income based) | 322 | 135 | 52 | 82 | 23 | 93 | 9 | 24 | 7 | 8 | 75 |
| Invalid care allowance | 52 | 41 | 38 | 87 | 63 | 25 | 32 | 18 | 18 | - | 37 |
| Attendance allowance | - | - | - | 5 | 7 | - | 3 | 8 | - | - | 2 |
| Disability living allowance/Disabled Persons Tax Credit | 89 | 213 | 122 | 385 | 279 | 219 | 67 | 221 | 58 | 31 | 169 |
| War pensions / War widows' pensions | - | - | 5 | 39 | - | - | 6 | - | - | - | 5 |
| Severe disablement allowance | 24 | 16 | 3 | 81 | 39 | - | 12 | - | 16 | 12 | 20 |
| Industrial injury disablement benefit | 4 | 10 | 35 | - | 9 | 64 | - | 4 | - | - | 13 |
| Student support | 102 | 43 | 96 | 21 | 44 | 59 | 32 | 51 | 40 | 67 | 55 |
| Government training schemes | 37 | 27 | 27 | 30 | 43 | 162 | 1 | 2 | 1 | - | 33 |
| Family credit / Working Families Tax Credit | 293 | 586 | 712 | 372 | 243 | 174 | 65 | 8 | 6 | - | 246 |
| Other non-contributory benefits | 3 | 39 | 6 | 71 | 27 | 1 | 1 | 1 | 0 | 0 | 15 |
| Total cash benefits | 5 915 | 6 604 | 5 263 | 4 305 | 3 198 | 2 671 | 1 737 | 1 748 | 1 441 | 1 392 | 3 427 |
| Gross income | 8 895 | 11 581 | 14 254 | 19 620 | 24 395 | 30 045 | 33 856 | 39 291 | 48 401 | 89 352 | 31 969 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 253 | 500 | 933 | 1 784 | 2 559 | 3 713 | 4 771 | 5 831 | 7 717 | 17 142 | 4 520 |
| less: Tax relief at source ¹ | 32 | 27 | 49 | 82 | 104 | 128 | 148 | 163 | 181 | 163 | 108 |
| Employees' NI contributions | 140 | 265 | 511 | 890 | 1 231 | 1 555 | 1 860 | 2 192 | 2 504 | 2 341 | 1 349 |
| Local taxes ² | 789 | 804 | 754 | 844 | 907 | 1 016 | 1 012 | 1 092 | 1 152 | 1 353 | 972 |
| less: Council tax benefit / Rate rebates | 328 | 330 | 179 | 126 | 82 | 54 | 28 | 30 | 19 | 30 | 121 |
| Total | 822 | 1 211 | 1 970 | 3 312 | 4 510 | 6 102 | 7 467 | 8 922 | 11 173 | 20 644 | 6 613 |
| Disposable income | 8 073 | 10 370 | 12 284 | 16 308 | 19 884 | 23 943 | 26 389 | 30 369 | 37 228 | 68 709 | 25 356 |
| <i>Equivalised disposable income</i> | <i>5 560</i> | <i>7 978</i> | <i>9 608</i> | <i>11 544</i> | <i>13 755</i> | <i>15 820</i> | <i>18 319</i> | <i>21 790</i> | <i>27 023</i> | <i>48 433</i> | <i>17 983</i> |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 1 094 | 1 011 | 1 192 | 1 727 | 2 084 | 2 260 | 2 435 | 2 608 | 3 034 | 4 048 | 2 149 |
| Duty on tobacco | 413 | 431 | 407 | 422 | 357 | 329 | 278 | 229 | 228 | 133 | 323 |
| Duty on beer and cider | 71 | 45 | 63 | 98 | 121 | 149 | 142 | 144 | 131 | 124 | 109 |
| Duty on wines and spirits | 56 | 37 | 58 | 85 | 113 | 140 | 143 | 133 | 139 | 230 | 113 |
| Duty on hydrocarbon oils | 314 | 270 | 298 | 483 | 626 | 618 | 742 | 736 | 735 | 773 | 560 |
| Vehicle excise duty | 82 | 64 | 77 | 121 | 156 | 172 | 184 | 189 | 215 | 205 | 146 |
| Television licences | 89 | 90 | 93 | 96 | 97 | 99 | 97 | 99 | 98 | 98 | 96 |
| Stamp duty on house purchase | 23 | 18 | 21 | 40 | 50 | 68 | 74 | 92 | 111 | 202 | 70 |
| Customs duties | 22 | 20 | 24 | 32 | 39 | 43 | 45 | 49 | 56 | 79 | 41 |
| Betting taxes | 29 | 24 | 38 | 45 | 52 | 63 | 53 | 43 | 81 | 46 | 47 |
| Insurance premium tax | 13 | 12 | 15 | 24 | 33 | 39 | 40 | 45 | 52 | 70 | 34 |
| Air passenger duty | 2 | 2 | 5 | 7 | 12 | 21 | 18 | 22 | 38 | 44 | 17 |
| Camelot National lottery fund | 38 | 36 | 52 | 61 | 73 | 78 | 71 | 70 | 57 | 47 | 58 |
| Other | 7 | 5 | 8 | 25 | 22 | 2 | 12 | 8 | 10 | 15 | 12 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 159 | 150 | 177 | 237 | 284 | 315 | 334 | 362 | 409 | 584 | 301 |
| Employers' NI contributions | 239 | 224 | 265 | 355 | 425 | 471 | 499 | 542 | 612 | 874 | 450 |
| Duty on hydrocarbon oils | 128 | 120 | 142 | 190 | 228 | 252 | 268 | 290 | 328 | 468 | 241 |
| Vehicle excise duty | 18 | 17 | 20 | 26 | 31 | 35 | 37 | 40 | 45 | 64 | 33 |
| Other | 126 | 118 | 140 | 187 | 224 | 249 | 264 | 286 | 323 | 461 | 238 |
| Total indirect taxes | 2 921 | 2 693 | 3 096 | 4 262 | 5 027 | 5 402 | 5 735 | 5 987 | 6 699 | 8 566 | 5 039 |
| Post-tax income | 5 152 | 7 677 | 9 188 | 12 046 | 14 857 | 18 541 | 20 654 | 24 382 | 30 529 | 60 143 | 20 317 |
| Benefits in kind | | | | | | | | | | | |
| Education | 5 380 | 4 213 | 3 720 | 4 241 | 3 715 | 4 122 | 3 637 | 3 179 | 2 747 | 2 385 | 3 734 |
| National health service | 2 144 | 2 137 | 2 323 | 2 209 | 2 231 | 2 079 | 2 181 | 2 231 | 2 264 | 2 322 | 2 212 |
| Housing subsidy | 87 | 97 | 76 | 49 | 24 | 19 | 11 | 8 | 8 | 3 | 38 |
| Rail travel subsidy | 15 | 23 | 13 | 19 | 17 | 36 | 31 | 60 | 35 | 85 | 33 |
| Bus travel subsidy | 17 | 14 | 13 | 30 | 19 | 25 | 15 | 11 | 11 | 20 | 17 |
| School meals and welfare milk | 249 | 208 | 125 | 86 | 58 | 33 | 42 | 26 | 20 | 14 | 86 |
| Total | 7 892 | 6 693 | 6 269 | 6 634 | 6 063 | 6 313 | 5 916 | 5 515 | 5 085 | 4 830 | 6 121 |
| Final income | 13 043 | 14 370 | 15 458 | 18 680 | 20 920 | 24 854 | 26 570 | 29 897 | 35 614 | 64 973 | 26 438 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 7 (Appendix 1): Distribution of households¹ by household type, 1999–2000

| | Retired households | | | | Non-Retired households | | | |
|--|--------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|---|---|------------------------|
| | 1 adult Men | 1 adult Women | All 1 adult | 2 or more adults | 1 adult Men | 1 adult Women | All 1 adult | |
| Decile groups of households ranked by equivalised disposable income | | | | | | | | |
| Number of households ('000s) | | | | | | | | |
| Bottom | 108 | 403 | 511 | 311 | 284 | 230 | 513 | |
| 2nd | 137 | 433 | 570 | 476 | 207 | 134 | 341 | |
| 3rd | 194 | 612 | 806 | 429 | 168 | 128 | 296 | |
| 4th | 147 | 393 | 540 | 415 | 158 | 146 | 304 | |
| 5th | 109 | 303 | 412 | 344 | 219 | 136 | 356 | |
| 6th | 67 | 237 | 305 | 251 | 260 | 138 | 398 | |
| 7th | 73 | 122 | 195 | 204 | 265 | 166 | 431 | |
| 8th | 54 | 93 | 147 | 206 | 300 | 183 | 484 | |
| 9th | 44 | 30 | 73 | 129 | 342 | 188 | 530 | |
| Top | 17 | 48 | 65 | 101 | 490 | 204 | 694 | |
| All households in population ('000s) | 949 | 2 675 | 3 624 | 2 863 | 2 693 | 1 653 | 4 346 | |
| Non-Retired households | | | | | | | | |
| | 2 adults | 3 or more adults | 1 adult with children | 2 adults with 1 child | 2 adults with 2 children | 2 adults with 3 or more children | 3 or more adults with children | All house- holds |
| Decile groups of households ranked by equivalised disposable income | | | | | | | | |
| Number of households ('000s) | | | | | | | | |
| Bottom | 277 | 104 | 360 | 89 | 148 | 135 | 86 | 2 532 |
| 2nd | 169 | 136 | 405 | 112 | 131 | 143 | 48 | 2 531 |
| 3rd | 228 | 78 | 272 | 103 | 144 | 122 | 58 | 2 534 |
| 4th | 400 | 125 | 158 | 160 | 196 | 137 | 100 | 2 535 |
| 5th | 372 | 222 | 89 | 180 | 299 | 123 | 138 | 2 535 |
| 6th | 512 | 258 | 87 | 177 | 274 | 100 | 171 | 2 533 |
| 7th | 637 | 364 | 68 | 201 | 222 | 89 | 123 | 2 534 |
| 8th | 708 | 309 | 55 | 253 | 248 | 33 | 90 | 2 531 |
| 9th | 832 | 306 | 34 | 288 | 239 | 18 | 86 | 2 534 |
| Top | 973 | 167 | 18 | 244 | 150 | 57 | 66 | 2 536 |
| All households in population ('000s) | 5 108 | 2 068 | 1 546 | 1 807 | 2 051 | 957 | 965 | 25 334 |

¹ See Appendix 3 for definitions of retired households, adults and children.

TABLE 8 (Appendix 1): Summary of the effects of taxes and benefits, by household type¹, 1999–2000

| | Retired households | | | | Non-Retired households | | | |
|---|--------------------|------------------------|-----------------------------|-----------------------------|--------------------------------|---|---|------------------------|
| | 1 adult Men | 1 adult Women | All 1 adult | 2 or more adults | 1 adult Men | 1 adult Women | All 1 adult | |
| Average per household (£ per year) | | | | | | | | |
| Original income | 4 880 | 3 046 | 3 526 | 10 302 | 16 462 | 13 147 | 15 201 | |
| <i>plus</i> Cash benefits | 5 023 | 5 406 | 5 306 | 7 257 | 1 537 | 1 713 | 1 604 | |
| Gross income | 9 903 | 8 452 | 8 832 | 17 558 | 17 999 | 14 860 | 16 805 | |
| <i>less</i> Direct taxes and employees' NIC | 1 406 | 999 | 1 105 | 2 505 | 4 117 | 3 326 | 3 816 | |
| Disposable income | 8 497 | 7 454 | 7 727 | 15 053 | 13 882 | 11 534 | 12 989 | |
| <i>Equivalentised disposable income</i> | 13 932 | 12 204 | 12 656 | 14 474 | 22 757 | 18 908 | 21 293 | |
| <i>less</i> Indirect taxes | 1 568 | 1 256 | 1 337 | 3 324 | 2 963 | 2 516 | 2 793 | |
| Post-tax income | 6 928 | 6 198 | 6 389 | 11 730 | 10 919 | 9 018 | 10 196 | |
| <i>plus</i> Benefits in kind | 2 310 | 2 642 | 2 556 | 3 790 | 830 | 988 | 890 | |
| Final income | 9 239 | 8 840 | 8 945 | 15 519 | 11 749 | 10 006 | 11 086 | |
| Non-Retired households | | | | | | | | |
| | 2 adults | 3 or more adults | 1 adult with children | 2 adults with 1 child | 2 adults with 2 children | 2 adults with 3 or more children | 3 or more adults with children | All house- holds |
| Average per household (£ per year) | | | | | | | | |
| Original income | 31 877 | 37 334 | 6 721 | 32 914 | 34 900 | 28 740 | 41 588 | 22 004 |
| <i>plus</i> Cash benefits | 1 748 | 2 711 | 6 124 | 2 088 | 2 092 | 4 204 | 3 683 | 3 419 |
| Gross income | 33 625 | 40 045 | 12 846 | 35 002 | 36 993 | 32 944 | 45 271 | 25 423 |
| <i>less</i> Direct taxes and employees' NIC | 7 527 | 8 232 | 1 621 | 7 829 | 8 258 | 6 474 | 8 974 | 5 198 |
| Disposable income | 26 098 | 31 813 | 11 224 | 27 173 | 28 735 | 26 470 | 36 297 | 20 225 |
| <i>Equivalentised disposable income</i> | 25 465 | 20 557 | 11 289 | 22 227 | 19 861 | 15 194 | 19 530 | 19 111 |
| <i>less</i> Indirect taxes | 5 000 | 7 099 | 2 367 | 5 348 | 5 622 | 5 208 | 7 330 | 4 091 |
| Post-tax income | 21 098 | 24 714 | 8 857 | 21 825 | 23 113 | 21 262 | 28 967 | 16 134 |
| <i>plus</i> Benefits in kind | 1 603 | 3 620 | 5 515 | 3 811 | 6 124 | 10 050 | 7 516 | 3 335 |
| Final income | 22 701 | 28 333 | 14 372 | 25 635 | 29 237 | 31 311 | 36 483 | 19 470 |

¹ See Appendix 3 for definitions of retired households, adults and children.

TABLE 9 (Appendix 1): Average incomes, taxes and benefits by decile groups of households (ranked by UNADJUSTED disposable income), 1999–2000

| | Decile groups of households ranked by UNADJUSTED disposable income | | | | | | | | | | All households |
|---|--|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Average per household (£ per year) | | | | | | | | | | | |
| <i>Decile points (£ per year)</i> | 5 710 | 7 795 | 10 022 | 12 521 | 15 766 | 19 409 | 23 586 | 29 438 | 37 821 | | |
| Number of households in the population ('000s) | 2 532 | 2 535 | 2 531 | 2 536 | 2 531 | 2 534 | 2 535 | 2 532 | 2 535 | 2 533 | 25 334 |
| Original income | | | | | | | | | | | |
| Wages and salaries | 386 | 823 | 2 423 | 5 140 | 9 178 | 14 341 | 18 680 | 25 974 | 34 061 | 51 383 | 16 239 |
| Imputed income from benefits in kind | 3 | 5 | 13 | 6 | 57 | 97 | 282 | 418 | 578 | 1 419 | 288 |
| Self-employment income | 171 | 217 | 254 | 630 | 837 | 1 002 | 1 985 | 1 862 | 3 048 | 14 521 | 2 453 |
| Occupational pensions, annuities | 338 | 867 | 1 107 | 1 539 | 1 916 | 2 095 | 2 521 | 2 189 | 1 771 | 2 690 | 1 703 |
| Investment income | 276 | 283 | 434 | 477 | 664 | 696 | 1 019 | 974 | 1 255 | 5 261 | 1 134 |
| Other income | 97 | 129 | 140 | 173 | 147 | 217 | 215 | 259 | 219 | 275 | 187 |
| Total | 1 273 | 2 325 | 4 371 | 7 964 | 12 799 | 18 449 | 24 700 | 31 677 | 40 931 | 75 548 | 22 004 |
| Direct benefits in cash | | | | | | | | | | | |
| Contributory | | | | | | | | | | | |
| Retirement pension | 1 802 | 2 434 | 2 355 | 2 030 | 1 605 | 1 246 | 898 | 708 | 521 | 402 | 1 400 |
| Job seeker's allowance (Contribution based) | 67 | 30 | 36 | 32 | 18 | 11 | 17 | 12 | 8 | 9 | 24 |
| Incapacity benefit | 196 | 271 | 288 | 413 | 327 | 376 | 251 | 174 | 143 | 79 | 252 |
| Widows' benefits | 73 | 42 | 66 | 50 | 51 | 56 | 16 | 8 | 20 | 22 | 40 |
| Statutory maternity pay/ Allowance | 0 | 3 | 3 | 4 | 15 | 19 | 24 | 61 | 73 | 51 | 25 |
| Non-contributory | | | | | | | | | | | |
| Income support | 355 | 698 | 908 | 703 | 469 | 228 | 151 | 72 | 115 | 19 | 372 |
| Child benefit | 81 | 188 | 279 | 295 | 382 | 385 | 413 | 466 | 426 | 453 | 337 |
| Housing benefit | 492 | 1 036 | 879 | 646 | 382 | 141 | 75 | 36 | 28 | 12 | 373 |
| Job seeker's allowance (Income based) | 103 | 91 | 61 | 94 | 69 | 29 | 30 | 34 | 31 | 7 | 55 |
| Invalid care allowance | 11 | 8 | 15 | 27 | 41 | 58 | 45 | 16 | 28 | 5 | 25 |
| Attendance allowance | 36 | 52 | 204 | 240 | 113 | 87 | 50 | 29 | 35 | 5 | 85 |
| Disability living allowance / Disabled Persons Tax Credit | 36 | 100 | 257 | 293 | 326 | 255 | 169 | 128 | 131 | 63 | 176 |
| War pensions / War widows' pensions | 1 | 3 | 18 | 71 | 55 | 68 | 96 | 4 | 14 | 6 | 34 |
| Severe disablement allowance | 12 | 30 | 24 | 43 | 45 | 37 | 18 | 23 | 24 | 8 | 27 |
| Industrial injury disablement benefit | 10 | 14 | 12 | 40 | 19 | 48 | 6 | 11 | 33 | 39 | 23 |
| Student support | 63 | 28 | 19 | 36 | 31 | 103 | 56 | 20 | 86 | 87 | 53 |
| Government training schemes | 12 | 17 | 9 | 9 | 20 | 29 | 18 | 59 | 16 | 9 | 20 |
| Family credit / Working Families Tax Credit | 7 | 39 | 165 | 148 | 164 | 109 | 53 | 27 | 19 | 0 | 73 |
| Other non-contributory benefits | 36 | 28 | 69 | 32 | 37 | 21 | 13 | 6 | 14 | 1 | 26 |
| Total cash benefits | 3 394 | 5 111 | 5 669 | 5 207 | 4 168 | 3 306 | 2 402 | 1 894 | 1 764 | 1 276 | 3 419 |
| Gross income | 4 667 | 7 437 | 10 040 | 13 171 | 16 967 | 21 755 | 27 102 | 33 570 | 42 695 | 76 824 | 25 423 |
| Direct taxes and Employees' NIC | | | | | | | | | | | |
| Income tax | 148 | 225 | 470 | 965 | 1 630 | 2 466 | 3 588 | 4 709 | 6 431 | 14 170 | 3 480 |
| /less: Tax relief at source ¹ | 14 | 10 | 16 | 37 | 53 | 77 | 97 | 117 | 126 | 142 | 69 |
| Employers' NI contributions | 39 | 53 | 156 | 331 | 613 | 978 | 1 302 | 1 697 | 2 210 | 2 617 | 1 000 |
| Local taxes ² | 687 | 708 | 764 | 806 | 824 | 894 | 947 | 1 006 | 1 079 | 1 262 | 898 |
| /less: Council tax benefit / Rate rebates | 202 | 236 | 210 | 149 | 100 | 68 | 36 | 39 | 36 | 33 | 111 |
| Total | 657 | 739 | 1 164 | 1 916 | 2 914 | 4 194 | 5 703 | 7 256 | 9 558 | 17 874 | 5 198 |
| Disposable income | 4 010 | 6 697 | 8 876 | 11 255 | 14 053 | 17 560 | 21 399 | 26 314 | 33 137 | 58 950 | 20 225 |
| Indirect taxes | | | | | | | | | | | |
| Taxes on final goods and services | | | | | | | | | | | |
| VAT | 648 | 555 | 816 | 1 076 | 1 330 | 1 694 | 1 971 | 2 345 | 2 815 | 3 714 | 1 696 |
| Duty on tobacco | 172 | 179 | 261 | 278 | 318 | 319 | 369 | 297 | 335 | 259 | 279 |
| Duty on beer and cider | 45 | 27 | 66 | 65 | 95 | 119 | 131 | 156 | 178 | 197 | 108 |
| Duty on wines and spirits | 44 | 47 | 65 | 73 | 88 | 123 | 132 | 174 | 197 | 247 | 119 |
| Duty on hydrocarbon oils | 143 | 107 | 178 | 291 | 371 | 442 | 525 | 636 | 752 | 878 | 432 |
| Vehicle excise duty | 47 | 45 | 60 | 91 | 110 | 132 | 154 | 180 | 208 | 225 | 125 |
| Television licences | 81 | 86 | 90 | 90 | 93 | 96 | 97 | 98 | 97 | 98 | 93 |
| Stamp duty on house purchase | 19 | 13 | 17 | 30 | 37 | 55 | 65 | 71 | 87 | 150 | 54 |
| Customs duties | 13 | 12 | 16 | 21 | 26 | 32 | 36 | 42 | 50 | 67 | 32 |
| Betting taxes | 32 | 23 | 39 | 42 | 59 | 62 | 85 | 70 | 74 | 74 | 56 |
| Insurance premium tax | 11 | 9 | 12 | 18 | 24 | 30 | 36 | 43 | 52 | 68 | 30 |
| Air passenger duty | 4 | 3 | 4 | 5 | 11 | 16 | 17 | 32 | 36 | 51 | 18 |
| Camelot National lottery fund | 28 | 31 | 46 | 53 | 63 | 71 | 81 | 84 | 82 | 71 | 61 |
| Other | 4 | 3 | 6 | 6 | 7 | 10 | 20 | 15 | 12 | 15 | 10 |
| Intermediate taxes | | | | | | | | | | | |
| Commercial and industrial rates | 96 | 92 | 120 | 155 | 189 | 233 | 264 | 312 | 371 | 496 | 233 |
| Employers' NI contributions | 144 | 137 | 180 | 232 | 283 | 349 | 395 | 467 | 556 | 743 | 349 |
| Duty on hydrocarbon oils | 77 | 73 | 96 | 124 | 152 | 187 | 212 | 250 | 298 | 398 | 187 |
| Vehicle excise duty | 11 | 10 | 13 | 17 | 21 | 26 | 29 | 34 | 41 | 55 | 26 |
| Other | 76 | 72 | 95 | 123 | 149 | 184 | 209 | 246 | 294 | 392 | 184 |
| Total indirect taxes | 1 696 | 1 524 | 2 179 | 2 790 | 3 427 | 4 179 | 4 828 | 5 552 | 6 535 | 8 199 | 4 091 |
| Post-tax income | 2 314 | 5 173 | 6 697 | 8 465 | 10 626 | 13 381 | 16 571 | 20 762 | 26 602 | 50 752 | 16 134 |
| Benefits in kind | | | | | | | | | | | |
| Education | 841 | 709 | 990 | 1 050 | 1 339 | 1 545 | 1 469 | 1 719 | 1 699 | 1 739 | 1 310 |
| National health service | 1 715 | 1 972 | 2 136 | 2 075 | 1 989 | 1 818 | 1 827 | 1 835 | 1 927 | 1 809 | 1 910 |
| Housing subsidy | 40 | 70 | 66 | 49 | 39 | 21 | 15 | 9 | 12 | 7 | 33 |
| Rail travel subsidy | 15 | 11 | 10 | 12 | 17 | 25 | 30 | 31 | 55 | 91 | 30 |
| Bus travel subsidy | 29 | 40 | 41 | 33 | 27 | 28 | 21 | 18 | 19 | 17 | 27 |
| School meals and welfare milk | 8 | 33 | 44 | 38 | 49 | 18 | 26 | 8 | 14 | 11 | 25 |
| Total | 2 648 | 2 834 | 3 286 | 3 258 | 3 461 | 3 456 | 3 388 | 3 620 | 3 726 | 3 674 | 3 335 |
| Final income | 4 962 | 8 008 | 9 983 | 11 722 | 14 087 | 16 837 | 19 959 | 24 382 | 30 329 | 54 426 | 19 470 |

1 On mortgage interest and life assurance premiums.

2 Council tax, domestic rates and water charges after deducting discounts.

TABLE 10 (Appendix 1): Cross-tabulation of households ranked by disposable income, unadjusted and equivalised, 1999–2000

| (i) Quintile groups | Quintile groups of equivalised disposable income | | | | | All households | | | | | |
|--|---|-------|-------|-------|-------|----------------|-------|-------|-------|-------|----------------|
| | Bottom | 2nd | 3rd | 4th | Top | | | | | | |
| Number of households in the population ('000s) | | | | | | | | | | | |
| Quintile groups of unadjusted disposable income | | | | | | | | | | | |
| Bottom | 3 226 | 1 838 | - | - | - | 5 064 | | | | | |
| 2nd | 1 440 | 1 638 | 1 512 | 480 | - | 5 070 | | | | | |
| 3rd | 383 | 1 313 | 1 862 | 1 036 | 471 | 5 065 | | | | | |
| 4th | 15 | 271 | 1 429 | 2 287 | 1 065 | 5 067 | | | | | |
| Top | - | 8 | 264 | 1 262 | 3 534 | 5 069 | | | | | |
| All households | 5 063 | 5 069 | 5 067 | 5 065 | 5 070 | 25 334 | | | | | |
| (ii) Decile groups | | | | | | | | | | | |
| | Decile groups of equivalised disposable income | | | | | | | | | | All households |
| | Bottom | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | Top | |
| Number of households in the population ('000s) | | | | | | | | | | | |
| Decile groups of unadjusted disposable income | | | | | | | | | | | |
| Bottom | 1 480 | 920 | 132 | - | - | - | - | - | - | - | 2 532 |
| 2nd | 546 | 283 | 1 018 | 688 | - | - | - | - | - | - | 2 535 |
| 3rd | 221 | 716 | 386 | 191 | 771 | 245 | - | - | - | - | 2 531 |
| 4th | 180 | 319 | 529 | 532 | 35 | 460 | 480 | - | - | - | 2 536 |
| 5th | 82 | 227 | 249 | 481 | 643 | 73 | 162 | 614 | - | - | 2 531 |
| 6th | 20 | 54 | 159 | 424 | 374 | 772 | 234 | 26 | 471 | - | 2 534 |
| 7th | 3 | 12 | 56 | 154 | 462 | 275 | 716 | 423 | 141 | 293 | 2 535 |
| 8th | - | - | 5 | 57 | 184 | 508 | 433 | 715 | 374 | 257 | 2 532 |
| 9th | - | - | - | 8 | 61 | 188 | 457 | 559 | 863 | 399 | 2 535 |
| Top | - | - | - | - | 5 | 11 | 51 | 194 | 686 | 1 587 | 2 533 |
| All households | 2 532 | 2 531 | 2 534 | 2 535 | 2 535 | 2 533 | 2 534 | 2 531 | 2 534 | 2 536 | 25 334 |

APPENDIX 2

Trends in income distribution, 1981 to 1999–2000

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This section gives Gini coefficients and shares of income for 1981 to 1999–2000. As was noted in the main article, it is not possible to produce a fully consistent time series because of changes in methodology and definition. Many of these changes, like the inclusion of the income from company cars since 1990, improve the quality of the results but previous data cannot be reproduced on the same consistent basis. However, Gini coefficients and shares of income are relatively robust and can be used to shed light on broad trends in income distribution. The Department of Social Security publication, *Households Below Average Income 1995/96–1998/99*, contains more detailed data for comparison of incomes over time.

TABLE 1 (Appendix 2): Percentage shares of total original, gross, disposable and post-tax incomes by quintile groups of households¹, 1981 to 1999–2000²

| | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1992 | 1993–94 | 1995–96 | 1996–97 | 1997–98 | 1998–99 | 1999–2000 |
|--------------------------------------|------|------|------|------|------|------|------|---------|---------|---------|---------|---------|-----------|
| Equivalised original income | | | | | | | | | | | | | |
| Quintile group | | | | | | | | | | | | | |
| Bottom | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 |
| 2nd | 9 | 8 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| 3rd | 17 | 17 | 17 | 16 | 16 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 |
| 4th | 26 | 26 | 27 | 25 | 26 | 26 | 26 | 25 | 25 | 25 | 25 | 25 | 25 |
| Top | 46 | 47 | 47 | 50 | 49 | 50 | 50 | 52 | 50 | 51 | 51 | 52 | 52 |
| All households | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Equivalised gross income | | | | | | | | | | | | | |
| Quintile group | | | | | | | | | | | | | |
| Bottom | 8 | 9 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 |
| 2nd | 12 | 12 | 12 | 11 | 11 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 3rd | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 4th | 23 | 23 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| Top | 39 | 39 | 40 | 43 | 42 | 44 | 43 | 44 | 43 | 44 | 44 | 44 | 44 |
| All households | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Equivalised disposable income | | | | | | | | | | | | | |
| Quintile group | | | | | | | | | | | | | |
| Bottom | 9 | 9 | 9 | 8 | 8 | 7 | 7 | 8 | 8 | 8 | 8 | 7 | 7 |
| 2nd | 13 | 13 | 13 | 12 | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 12 | 12 |
| 3rd | 17 | 17 | 17 | 16 | 17 | 16 | 16 | 16 | 17 | 16 | 16 | 16 | 16 |
| 4th | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| Top | 38 | 38 | 38 | 41 | 41 | 42 | 42 | 42 | 40 | 42 | 42 | 42 | 42 |
| All households | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Equivalised post-tax income | | | | | | | | | | | | | |
| Quintile group | | | | | | | | | | | | | |
| Bottom | 9 | 9 | 9 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 |
| 2nd | 13 | 13 | 13 | 12 | 11 | 11 | 11 | 11 | 12 | 11 | 11 | 11 | 11 |
| 3rd | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 4th | 22 | 22 | 23 | 22 | 23 | 23 | 23 | 22 | 23 | 22 | 22 | 22 | 22 |
| Top | 39 | 39 | 39 | 43 | 43 | 44 | 44 | 44 | 43 | 44 | 44 | 45 | 45 |
| All households | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

1 Ranked by equivalised disposable income.

2 From 1990 this includes Company car benefit and beneficial house purchase loans from employers. From 1996-7 values are based on estimates for the sample grossed up to population totals.

TABLE 2 (Appendix 2): Gini coefficients for the distribution of income at each stage of the tax-benefit system, 1981 to 1999–2000¹

| | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1992 | 1993–94 | 1995–96 | 1996–97 | 1997–98 | 1998–99 | 1999–2000 |
|-------------------------------------|------|------|------|------|------|------|------|---------|---------|---------|---------|---------|-----------|
| Gini coefficients (per cent) | | | | | | | | | | | | | |
| Equivalised original income | 46 | 48 | 49 | 51 | 50 | 51 | 52 | 54 | 52 | 53 | 53 | 53 | 53 |
| Equivalised gross income | 31 | 32 | 32 | 36 | 36 | 37 | 37 | 37 | 36 | 37 | 37 | 38 | 38 |
| Equivalised disposable income | 28 | 28 | 29 | 33 | 34 | 35 | 34 | 34 | 33 | 34 | 34 | 35 | 35 |
| Equivalised post-tax income | 31 | 31 | 32 | 36 | 37 | 39 | 38 | 38 | 37 | 38 | 38 | 39 | 40 |

1 From 1990 this includes Company car benefit and beneficial house purchase loans from employers. From 1996–97 values are based on estimates for the sample grossed up to population totals.

TABLE 3 (Appendix 2): P90/P10 and P75/P25¹ ratios for equivalised disposable income, 1981 to 1999–2000²

| | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1992 | 1993–94 | 1995–96 | 1996–97 | 1997–98 | 1998–99 | 1999–2000 |
|---------|------|------|------|------|------|------|------|---------|---------|---------|---------|---------|-----------|
| P90/P10 | 3.4 | 3.3 | 3.5 | 4.1 | 4.5 | 4.8 | 4.6 | 4.5 | 4.2 | 4.4 | 4.5 | 4.5 | 4.6 |
| P75/P25 | 2.0 | 1.9 | 2.1 | 2.2 | 2.4 | 2.5 | 2.4 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 |

1 P90/P10 is the ratio of the income at the 90th percentile to the 10th; P75/P25 is the ratio of the income at the 75th percentile to the 25th

2 From 1990 this includes company car benefit and beneficial house purchase loans from employers. From 1996–97 values are based on estimates for the sample grossed up to population totals.

APPENDIX 3

METHODOLOGY AND DEFINITIONS

The allocation of government expenditure and its financing

1. There are considerable difficulties in moving from the aggregates of government expenditure and financing published in the United Kingdom National Accounts - the ONS *Blue Book* - to apportioning taxes and benefits to individual households. We can obtain information about the types of household that receive cash benefits and pay direct taxes through surveys such as the Family Expenditure Survey (FES). From the replies respondents give to questions on their expenditure we can impute their payments of indirect taxes, and from information they supply about such factors as their ages and number of children in the household we can estimate the average costs of providing them with social services, such as health and education. But there are other kinds of financing, such as corporation tax and government receipts from public corporations: no attempt is made in this analysis to apportion them to households because it would be too difficult. Similarly, there are other items of government expenditure, such as capital expenditure and expenditure on defence and on the maintenance of law and order, for which there is no clear conceptual basis for allocation, or for which we do not have sufficient information to make an allocation.

Family Expenditure Survey (FES)

2. The estimates in this article are based mainly on data derived from the FES. The FES is an annual survey of the expenditure and income of private households. People living in hotels, lodging houses, and in institutions such as old peoples' homes are excluded. Each person aged 16 and over keeps a full record of payments made during 14 consecutive days and answers questions about hire purchase and other payments; children aged 7 to 15 keep a simplified diary. The respondents also give detailed information, where appropriate, about income (including cash benefits received from the state) and payments of income tax. Information on age, occupation, education received, family composition and housing tenure is also obtained. The survey covers the whole 12 month period.

3. One of the main purposes of the FES is to produce information on household expenditure patterns which is used to derive the weights for the retail prices index. The fieldwork is undertaken by

the Social Survey Division of ONS and by the Northern Ireland Statistics and Research Agency. *Family Spending 1999–2000*, published by The Stationery Office in November 2000, shows detailed results on expenditure and income from the 1999–2000 survey, and how they vary with household characteristics. The report also includes an outline of the survey design.

4. The number of households in the United Kingdom responding to the FES in 1999–2000 was 7,100 (about 1 in every 3,600 households). The response rate was 63 per cent. To count as a co-operating household, all members aged 16 and over must fill in the diaries for both weeks and give full details of income etc. The available evidence suggests that households containing a couple with non-dependent children, those where the head is self-employed, and those where the head was born outside the United Kingdom, are less likely to co-operate than others (see *A comparison of the Census characteristics of respondents and non-respondents to the 1991 Family Expenditure Survey* by Kate Foster, *Survey Methodology Bulletin*, ONS, No 38, Jan 1996). In addition response in Greater London is noticeably lower than in other areas.

5. The results in the article are based on the survey grossed up so that totals reflect the total population in private households in the United Kingdom (that is excluding those in institutions such as residential homes for the elderly). Households were assigned different initial weights based on the non-response in the 1991 FES. These weights were derived from Census-linked data (see 'Weighting the FES in Great Britain to compensate for non-response: an investigation using census-linked data' by Kate Foster). The final household weights were produced using specialised software developed by INSEE, the French national statistics institute. The control variables used in the grossing system were the number of individuals by age (in five year bands) and sex; and the number of individuals by region.

6. The FES is designed primarily as a survey of expenditure on goods and services by households. It has been developed to gather information about the income of household members, and is an important and detailed source of income data. However, no information is collected that would enable a balance sheet of income and expenditure to be drawn up for a household over any particular period. Much expenditure relates to the two-week

period after the interview, whereas many income components refer to a much longer period (e.g. investment income over the previous 12 months). FES income does not include proceeds from the sale of assets (e.g. a car) or windfalls such as legacies. But recorded expenditure might reflect these items, as well as the effects of living off savings, using capital or borrowing money. Hence, there is no reason why income and expenditure should balance either for an individual household or even averaged over a group of households. Indeed, measured expenditure substantially exceeds measured income for the bottom half of the income distribution. Moreover, the difference between income and expenditure is not necessarily a measure of savings or dis-savings.

Unit of analysis

7. The basic unit of analysis in the article is the household, and not the family, individual or benefit unit. A household is defined in the FES as comprising people who live at the same address and who share common catering for at least one meal a day. Spending on many items, particularly on food, housing, fuel and light, is largely joint spending by the members of the household. Without further information or assumptions it is difficult to apportion indirect taxes between individuals or other sub-divisions of households.

8. In classifying the households into various types, a **child** (i.e. a dependent) is defined as:

either aged under 16

or aged 16, 17 or 18 not married, and receiving full-time non-advanced further education.

Most of the 'extra' adults in households with at least three adults are sons or daughters of the head of household rather than retired people.

9. A **retired household** is defined as one where the combined income of retired members amounts to at least half the total gross income of the household, where a retired person is defined as anyone who describes themselves as 'retired' or anyone over minimum NI pension age describing themselves as 'unoccupied' or 'sick or injured but not intending to seek work'.

10. By no means all retired people are in retired households: about one in five households comprising three or more adults contains retired people, for example, and households comprising one retired and one non-retired adult are often classified as non-retired.

11. The sample households have been classified according to their compositions at the time of the interview. This classification is sensible for the vast majority of households, but it can be misleading for the very small number of cases (4 in 1999–2000) where a spouse is absent from the household at the time of interview. The absent spouse may well be working away from home (e.g. on an oil rig), or living separately - but contributing financially to the household's upkeep. These contributions would be picked up as part of the household's original income. Also, it is likely that some households will have changed their composition during the year.

12. Economically active people comprise persons aged 16 or over who, at the time of interview, were:

employees at work,
employees temporarily away from work through illness,
temporary lay-off, industrial action, etc,
on government training schemes,
self-employed,
not in employment but who had sought work within the last four weeks, or were waiting to start a job already obtained.

Income: redistributive stages

13. Stage one:

Original income plus cash benefits = Gross income.

Stage two:

Gross income minus income tax, employees' National Insurance contributions and local taxes (see paragraph 25 below) = Disposable income.

Stage three:

Disposable income minus indirect taxes = Post-tax income.

Stage four:

Post-tax income plus 'benefits in kind' = Final income.

14. The starting point of the analysis is **original income**. This is the annualised income in cash of all members of the household before the deduction of taxes or the addition of any state benefits. It includes income from employment, self-employment, investment income, occupational pensions and annuities. The term 'annualised' rather than 'annual' is used advisedly. For instance, annualised income from a respondent's 'main job' is not current wage or salary multiplied up to an annual value; nor is it the sum of income from this source in the twelve month period prior to interview. Rather it is an estimate of such income expressed at an annual rate based on the respondent's

assessment of his "normal" wage or salary subject to his current employment status.

15. Furthermore, to avoid double counting and to make it consistent with the estimate of income from cash benefits (see paragraph 20), this annualised estimate has to be 'abated' for the number of weeks likely to be lost due to unemployment, sickness, etc. This figure is taken as the number of weeks so lost in the 12 months prior to interview. It should be noted that regardless of whether the respondent is currently working or unemployed the treatment is essentially the same, ie normal gross wage or salary expressed at an annual rate abated as required.

16. In all of this the crucial determining role of current employment status should also be noted. Thus no employment income would be assigned to a respondent whose employment status had recently become retired or unoccupied even though he or she may have worked for most of the twelve months prior to interview.

17. About 98 per cent of original income comes from earnings, occupational pensions (including annuities) and investment income. The tiny bit remaining comes from a variety of sources: trade union benefits, income of children under 16, private scholarships, earnings as a mail order agent or baby-sitter, regular allowance from a non-spouse, allowance from an absent spouse and the imputed value of rent-free accommodation. Households living in rent-free dwellings are each assigned an imputed income. This is counted as employment income if the tenancy depends on the job.

18. In addition to salary, many employees receive as part of their income fringe benefits such as company cars, private medical insurance and beneficial loans. The company car benefit, together with the benefit from fuel for personal use, has been included in the analysis since 1990. This is by far the most important fringe benefit accounting for over two thirds of all taxable fringe benefits according to Inland Revenue statistics. The benefit is taken to be the taxable income in accordance with Inland Revenue scale charges. *Inland Revenue Statistics 2000* (The Stationery Office) contains more detailed information on taxable fringe benefits and their impact on individuals. Although for those earning below £8,500 per year the benefit is not taxable, benefit has been allocated to all those with a company car regardless of the level of earnings. The calculation of this benefit is based primarily on the car price as reported in the FES. In any given year the total amount of benefit will depend on the level of scale charges for tax purposes as well as the numbers and prices of vehicles in the FES.

19. The benefit of subsidised loans from employers for house purchase has been allocated, since the 1992 analysis. The benefit is taken to be the difference between the interest payments on such loans as reported in the FES and the interest payments that would have been payable at the ruling market rate of interest.

20. The next stage of the analysis is to add cash benefits and tax credits to original income to obtain **gross income**. This is slightly different from the 'gross normal weekly income' used in the FES report. Cash benefits and tax credits include:

Contributory:

Retirement pension, part of job seeker's allowance, incapacity benefit, widows' benefits, and statutory maternity pay.

Non-contributory:

Income support, part of job seeker's allowance, child benefit, housing benefit (council tax benefit and rates rebates are treated as deductions from local taxes), invalid care allowance, attendance allowance, disability living allowance, disability working allowance and disabled persons tax credit (the latter from October 1999), war pensions, severe disablement allowance, industrial injury disablement benefits, family credit and working families tax credit (the latter from October 1999), old persons pension, Christmas bonus for pensioners, government training scheme allowances, educational support (largely student maintenance awards).

21. Statutory maternity pay is classified as a cash benefit even though it is paid through the employer.

22. Income from short-term benefits is taken as the product of the last weekly payment and the number of weeks the benefit was received in the 12 months prior to interview. Income from long-term benefits, and from housing benefits, is based on current rates.

23. Income tax, local taxes and employees' and self-employed contributions to National Insurance and National Health services are then deducted to give **disposable income**. Taxes on capital, such as capital gains tax and inheritance tax, are not included in these deductions because there is no clear conceptual basis for doing so, and the relevant data are not available from the FES.

24. The figures for local taxes include:

Council tax (for households in Great Britain),
domestic rates (for households in Northern Ireland),
and charges made by water authorities for water,
environmental and sewerage services.

25. Council tax is shown after deduction of transitional relief and discounts to reduce or remove the personal element of the tax (e.g. the discount of 25 per cent for single person households). All local taxes are shown after the deduction of council tax benefit and rate rebates. This brings the treatment in line with that of National Accounts which treats such rebates as revenue foregone. Up to and including 1995–96 these rebates were included as part of housing benefits.

26. The tax estimates are based on the amount deducted from the last payments of employment income and pensions, and on the amount paid in the last 12 months in respect of income from self-employment, interest, dividends and rent. The income tax payments recorded will therefore take account of a household's tax allowances, with the exception of tax relief obtained 'at source'. In 1999–2000 there were two types of tax relief obtained in this way: mortgage interest relief and life assurance premium relief. Where households are eligible for these reliefs, imputations are made and deducted from recorded income tax payments. In the case of mortgage interest relief obtained through the MIRAS scheme, which was introduced in April 1983, these imputations are based on the interest component of the latest mortgage repayment. The scheme has been discontinued from April 2000.

27. The next step is to deduct indirect taxes to give **post-tax income**. Indirect tax on final consumer goods and services include:

- Duties on alcoholic drinks, tobacco, petrol, oil, betting, etc
- Value Added Tax (VAT)
- Customs (import) duties
- Motor vehicle duties
- Air passenger duty
- Insurance premium tax
- Driving licenses
- Television licenses
- Stamp duties
- Fossil fuel levy
- Camelot: payments to National Lottery Distribution Fund

28. Taxes levied on final goods and services are assumed to be fully incident on the consumer, and can be imputed from a household's FES expenditure record. For example, the amount of VAT that is paid by the household is calculated from the household's total expenditure on goods and services subject to VAT.

29. VAT affects the prices of second-hand cars and is therefore assumed to be incident on the purchasers of such cars as well as on the purchasers of new cars. In allocating taxes, expenditures recorded in the FES on alcoholic drink, tobacco, ice cream, soft

drinks and confectionery are grossed up to allow for the known under-recording of these items in the sample. The true expenditure in each case is assumed to be proportional to the recorded expenditure. This approach has its drawbacks because there is some evidence to suggest that heavy drinkers, for example, are under-represented in the FES.

30. The incidence of stamp duty on house purchase on an owner-occupying household has been taken as the product of the hypothetical duty payable on buying their current dwelling (estimated from valuations given in the FES) and the probability of a household of that type moving in a given year (estimated from the General Household Survey).

31. Indirect taxes on intermediate goods and services include:

- Rates on commercial and industrial property
- Motor vehicle duties
- Duties on hydrocarbon oils
- Employers' contributions to National Insurance, the National Health Service, the industrial injuries fund and the redundancy payments scheme
- Customs (import) duties
- Stamp duties
- VAT
- Independent Commission franchise payments
- Landfill tax
- Consumer Credit Act fees

32. These are taxes that fall on goods and services purchased by industry. Only the elements attributable to the production of subsequent goods and services for final consumption by the UK personal sector are allocated in the article, being assumed to be fully shifted to the consumer. Their allocations between different categories of consumers' expenditure are based on the relation between intermediate production and final consumption using estimated input-output techniques. This process is not an exact science, and many assumptions have to be made. Some analyses, e.g. that by Dilnot, Kay and Keen *Allocating Taxes to Households: A Methodology*, suggest that the taxes could be progressive rather than regressive if one were to use different incidence assumptions.

33. For Tables B and H of the main article, we have constructed a measure of expenditure on goods and services from data from the FES. Indirect taxes are shown as a proportion both of disposable income and of expenditure. One drawback of comparing the incidence of indirect taxes on households at different levels of income is that, by whatever measure used, on average, recorded expenditure exceeds income apparently available for it by significant amounts at the bottom of the distribution. Thus, it has

been argued that for many households, where, for instance, income fluctuates widely or where it is difficult to measure accurately, a measure based on regular household outgoings would be a far better indicator of resources available to the household and therefore give a better picture of the incidence of indirect taxes.

34. This measure of expenditure has been customised to be analogous to the definition of disposable income used in the analysis in order to facilitate these comparisons. For instance, because the imputed benefit of company cars and beneficial loans will have boosted the figure for disposable income these items have had to be added to this expenditure measure. Expenditure on alcohol, tobacco and confectionery have been grossed up for under-recording in line with the treatment of the indirect taxes on these items. Payments deemed to be made out of income such as superannuation, regular savings, mortgage repayments etc have been included and adjusted where necessary but not items such as lumpsum capital payments in line with the exclusion of capital gains and windfalls from income.

35. Finally, we add those notional benefits in kind provided to households by government for which there is a reasonable basis for allocation to households, to obtain **final income**. The benefits in kind allocated are:

- State education
- School meals and welfare milk
- National Health Service
- Housing subsidy
- Railway travel subsidy
- Bus travel subsidy (including concessionary fares schemes)

36. Education benefit is estimated from information provided by the Department for Education and Employment of the cost per pupil or student in special schools, primary and secondary schools, universities, and other further education establishments. The value of the benefits attributed to a household depends on the number of people in the household recorded in the FES as receiving each kind of state education (students away from the household are excluded). No benefit is allocated for pupils attending private schools.

37. The value of school meals and other welfare foods is based on their costs to the public authorities. Any payment by the individual household is subtracted to arrive at a net contribution.

38. Data are available on the average cost to the Exchequer of providing the various types of health care - hospital inpatient/outpatient care, GP consultations, dental services, etc. Each

individual in the FES is allocated a benefit from the National Health Service according to the estimated average use made of these various types of health service by people of the same age and sex, and according to the total cost of providing those services. The benefit from maternity services is assigned separately to those households containing children under the age of 12 months. No allowance is made for the use of private health care services.

39. In this article public sector tenants are defined to include the tenants of local authorities, New Town Corporations, Scottish Homes, Northern Ireland Housing Executive (NIHE), housing associations and Registered Social Landlords. The total housing subsidy includes the contribution from central government to the housing revenue accounts of local authorities: and grants paid to the New Town Corporations, Scottish Homes, the NIHE, housing associations and Registered Social Landlords. Within Greater London, the rest of England, Wales, Scotland and Northern Ireland each public sector tenant has been allocated a share of the region's total relevant subsidy based on the Council Tax band of the dwelling. Housing subsidy does not include mortgage interest tax relief, rent rebates and allowances or local tax rebates.

40. The rail travel subsidies allocated are the support payments made to the train operating companies. The subsidy to London and South East services is allocated to households living in the area and subsidies to provincial services to households living outside the South East, in proportion to households' expenditure on rail fares as recorded in the FES. In making these allocations, allowances are made for the use of rail travel by the business sector, tourists and the institutional part of the personal sector.

41. In this article, bus travel subsidy covers both the cost of concessionary travel schemes for senior citizens and others, and subsidies to operators. Separate allocations are made for Greater London, the other metropolitan areas and the rest of the United Kingdom. The subsidy is divided between households according to recorded expenditure on bus travel and the types of concessionary passes held.

42. We must emphasise that the analysis in this article provides only a rough guide to the kinds of household which benefit from government expenditure, and by how much, and to those which finance it. Apart from the fact that large parts of expenditure and receipts are not allocated, the criteria used both to allocate taxes and to value and apportion benefits to individual households could be regarded as too simplistic.

43. For example, the lack of data forces us to assume that the incidence of direct taxes falls on the individual from whose income

the tax is deducted. This implies that the benefit of tax relief for mortgage interest, for example, accrues directly to the taxpayer rather than to some other party, for instance, the vendor of the land. It also implies that the working population is not able to pass the cost of the direct tax back to employers through lower profits, or to consumers through higher prices.

44. In allocating indirect taxes we assume that the part of the tax falling on consumers' expenditure is borne by the households which buy the item or the service taxed, whereas in reality the incidence of the tax is spread by pricing policies and probably falls in varying proportions on the producers of a good or service, on their employees, on the buyer, and on the producers and consumers of other goods and services.

45. Another example is that we know only an estimate of the total financial cost of providing benefits such as education, and so we have to treat that cost as if it measured the benefit which accrues to recipients of the service. In fact, the value the recipients themselves place on the service may be very different to the cost of providing it. Moreover, there may be households in the community, other than the immediate beneficiaries, who receive a benefit indirectly from the general provision of the service.

Equivalence scale

46. The equivalence scale used in this analysis is the *McClements scale* (**before** housing costs are deducted). The scales (separate ones for before and after housing costs) were developed by Dr L D McClements at the Department of Health and Social Security (DHSS) in the mid-seventies, based on expenditure data from the 1971 and 1972 FES. They are based on the assumption that it is possible to estimate equivalence scales from people's spending behaviour as recorded in the FES without making any specific assumption about the criteria for equivalence. These scales are in regular use and an analysis by Banks and Johnson (*Children and Household Living Standards*, IFS, 1993) suggests that the scales are as valid now as when they were developed. The scales are regarded as plausible and they are well within the range of equivalence scales developed at different times in a number of countries. Hence their use is fully justified for broad statistical standardisation.

47. The equivalence values are given below:

Type of household member Equivalence value

married head of household

| | |
|---------------------------------------|------------------|
| (i.e. a married or cohabiting couple) | 1.00 |
| 1st additional adult | 0.42 |
| 2nd (or more) additional adult | 0.36 (per adult) |

single head of household

| | |
|--------------------------------|------------------|
| (adult) | 0.61 |
| 1st additional adult | 0.46 |
| 2nd additional adult | 0.42 |
| 3rd (or more) additional adult | 0.36 (per adult) |

Child aged:

| | |
|---------|------|
| 16–18 | 0.36 |
| 13–15 | 0.27 |
| 11–12 | 0.25 |
| 8–10 | 0.23 |
| 5–7 | 0.21 |
| 2–4 | 0.18 |
| Under 2 | 0.09 |

48. The values for each household member are added together to give the total equivalence number for that household. This number is then divided into the disposable income for that household to give **equivalised disposable income**. For example, a household has a married couple with two children (aged six and nine) plus one adult lodger. The household's equivalence number is $1.0 + 0.21 + 0.23 + 0.42 = 1.86$. The household's disposable income is £20,000, and so its equivalised disposable income is £10,753 ($=£20,000/1.86$).

49. This quantity is used to produce the single ranking used in all the tables in this article (apart from the Gini coefficients which have to be ranked afresh for each different definition of income).

50. It is important to note that most monetary values shown in the article are ordinary (ie un-equivalised) £ per year, not equivalised £ per year. Where equivalised values do appear (eg the quintile points in Table 3 of Appendix 1), they are shown in *italics*.

Diagram A
Complete income equality

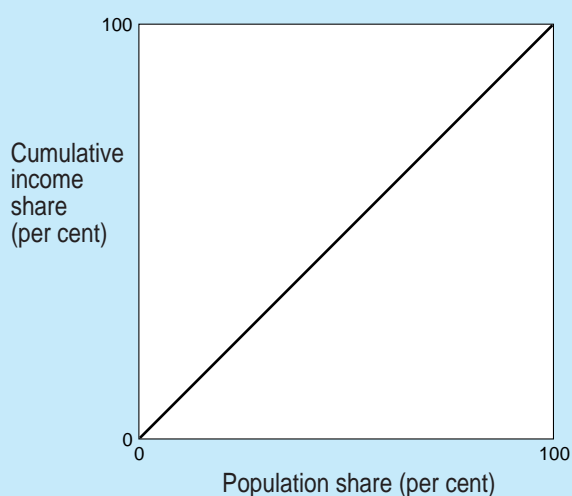
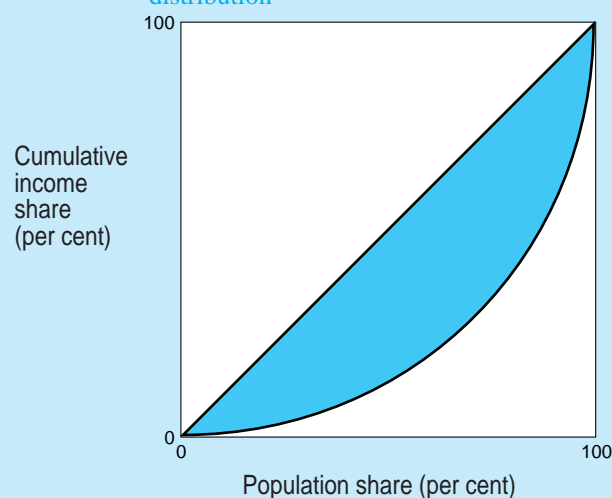


Diagram B
Lorenz curve for a typical income distribution



Gini coefficient

51. The Gini coefficient is the most widely used summary measure of the degree of inequality in an income distribution. It can more easily be understood by considering a Lorenz curve of the income distribution, (see Diagram B) i.e. a graph of the cumulative income share against the cumulative share of households. The curve representing complete equality of income is thus a diagonal line while complete inequality (with only one recipient of income) is represented by a curve comprising the horizontal axis and the right-hand vertical axis (see Diagram A). The area between the Lorenz curve and the diagonal line of complete equality, as a proportion of the triangular area between the curves of complete equality and inequality, gives the value of the Gini coefficient. Thus a distribution of perfectly equal incomes has a Gini coefficient of zero; as inequality increases (and the Lorenz curve bellies out), so does the Gini coefficient until, with complete inequality, it reaches its maximum value of 1 (or 100 per cent).

52. To calculate the Gini coefficient for an income distribution, the first step is to rank that distribution in ascending order. All the Gini coefficients shown in this article are based on distributions of equivalised income e.g. the coefficient for original income is calculated after dividing the original income for all the households by their appropriate equivalence values.

53. Strictly speaking, one could argue that the equivalence scales used here are only applicable to disposable income because this is the only income measure relating directly to spending power. Since the scales are often applied, in practice, to other income measures, we are content to use them to equivalise original, gross and post-tax income for the purpose of producing Gini coefficients

(and in the tables giving percentage shares of total income). However, we do not think it is appropriate to equalise the final income measure because this contains notional income from benefits in kind (e.g. state education): the equivalence scales used in this article are based on actual household spending and do not, therefore, apply to such items as notional income.

Impact of grossing

54. The survey results have been grossed up so that the population totals reflect the whole household population. Different grossing factors are applied to different types of households in order to correct for over and under-representation of these groups in the responding sample of the FES. Grossing raises the quality of the estimates by making the population more representative and by improving the allocation of national accounts aggregates to individual households. Estimates based on the grossed up data set are different from estimates based on the sample. Indeed, if they were not, there would be little point in grossing. The effect of grossing on some of the major variables used in the analysis was given in the 1997–98 article. More detail about the effect of grossing can be obtained from the ONS on request.

Sampling errors and reliability

55. As the FES is a sample survey, data from it will differ in varying degrees from those of all households in the UK. The degree of difference will depend on how widely particular categories of income and expenditure vary between households. This 'sampling error' is smallest in relation to large groups of households and measures that do not vary greatly between households. Conversely, it is largest for small groups of households, and for

measures that vary considerably between households. A broad numerical measure of the amount of variability is provided by the quantity known as the standard error.

56. It is difficult to calculate these standard errors exactly because of the multi-stage design of the FES, but we have made a good approximation by combining the simple random formula with the appropriate design factor from the FES analysis. [The design factor is the ratio of the standard error using the detailed formula that takes account of the full complexity of the sample design to the standard error using the simple random sample formula.] The most appropriate design factor from the FES work is for 'gross normal weekly household income'. The standard error of the mean for N households is given by:

$$(\text{design factor}) * S/\sqrt{N}$$

where the design factor is 1.1 for 1999–2000, and S^2 is the estimate of the population variance.

57. The standard error for disposable income of all households is less than 2 per cent of the mean but, for the less frequent household types, eg 1 adult with children and 3 or more adults with children, it is about 5 per cent of the mean.

58. The standard errors can be used to give an idea of the reliability of a mean by quoting a confidence interval of the form:

$$\text{estimate of mean} + \text{or} - (1.96 * \text{standard error})$$

where the factor 1.96 corresponds to the 95 per cent confidence interval.

59. The standard errors for the household types are larger than for the whole sample, mainly because the sample sizes concerned are smaller. For quantile groups of given household types, the sample sizes are of course smaller still, which would tend to increase sampling variability. On the other hand, the income values are by definition in a narrower range which would tend to reduce the sampling error.

60. Precise estimates of standard errors for averages for quantile groups are complicated to produce. As well as the variability of the observations between the quantile points, we should also take account of the randomness which exists because the sample

quantile points are themselves subject to random variation. We have used a formula for the asymptotic variance of a 'randomly trimmed' mean. This formula gives a good approximation where the total sample size is around 1,000 (when the variance is underestimated by about 2 per cent on average), and a reasonable approximation for samples of 100–500 (when the variance is underestimated by about 5 per cent on average). The formula for the variance of a mean (x) calculated between two sample percentiles, Q_1 and Q_2 , corresponding to proportions p_1 and p_2 is:

$$\frac{S^2 + p_1 (x - Q_1)^2 + (1 - p_2) (Q_2 - x)^2 + \frac{p_1 (1 - p_2)}{(p_2 - p_1)} (Q_2 - Q_1)^2}{n (p_2 - p_1)}$$

where S^2 = variance calculated from observations between Q_1 and Q_2 , and n = total sample size.

The square root of this quantity is then multiplied by the design factor (as described in paragraph 56) to give the standard errors.

61. The 'complex' standard errors for quintile and decile groups are quite a bit larger than the simple random sample estimates. For the 'all households' group, the standard errors for disposable income for the middle decile groups are about 10 per cent of the mean for the group.

Previous articles

62. This article is the latest in an annual series covering the years from 1957 onwards. From 1987 onwards, the articles have used a very different methodology, in particular households are ranked by their equivalised disposable income. Hence the results are completely incompatible with earlier years. Last year the article was published in the April 2000 edition of *Economic Trends*. A list of the previous articles was included in the article published in March 1997.

63. The results in all articles are intended to be free standing: they were not designed for direct comparison with other years except where some limited comparisons were made in the articles. Such comparisons are difficult because of changes in definitions, however, some broader measures like the Gini coefficients are relatively robust and will stand comparison with other years: this year's article gives such a comparison for the years 1978 to 1999–2000.