

The effects of taxes and benefits on household income, 2003-04

NAVIGATION INSTRUCTIONS

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The effects of taxes and benefits on household income, 2003–04

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This analysis examines how taxes and benefits redistribute income between various groups of households in the United Kingdom. It shows where different types of households and individuals are in the income distribution and looks at the changing levels of income inequality over time. The tables and figures were renumbered starting from the 2000–01 publication and new tables and figures were added. Table 1, showing links between the current tables and figures and those for 1999–2000 and previous years, is included at the end of the summary section.

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. As shown in Table 4 for 2003–04, before government intervention, the top fifth of households have an average of around £63,200 per year in original income (that is, from sources such as earnings, occupational pensions and investments). This is around 17 times as great as the figure of around £3,700 for the bottom fifth. After taking account of taxes and benefits, the ratio for final income is greatly reduced to four to one, the same as in previous years. The effect on the transition between original income and final income for 2003–04, broken down by quintiles, is also shown graphically in Figure 1.

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 59 per cent of the total. As shown in Table 4, these households typically receive around £6,000 from cash benefits, representing around 61 per cent of gross income for the bottom quintile group and 37 per cent for the next group. These proportions are even higher for retired households in this part of the distribution (see Table 12). The majority of cash benefits for non-retired households come from non-contributory benefits and, for retired households, from contributory benefits,

Figure 1
Original income and Final income by quintile groups for ALL households, 2003–04

Average per household (£ per year)

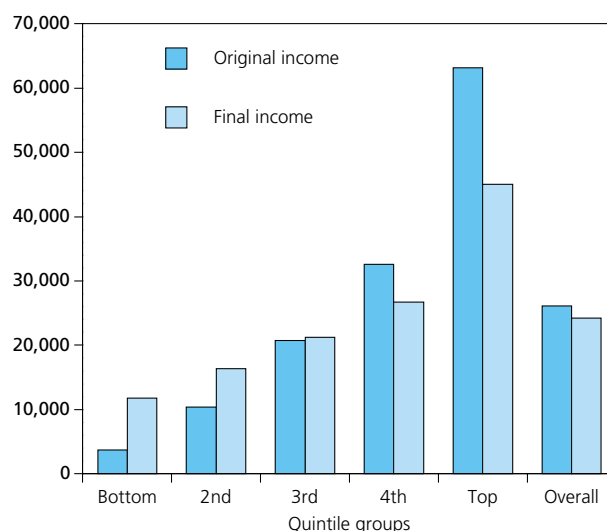
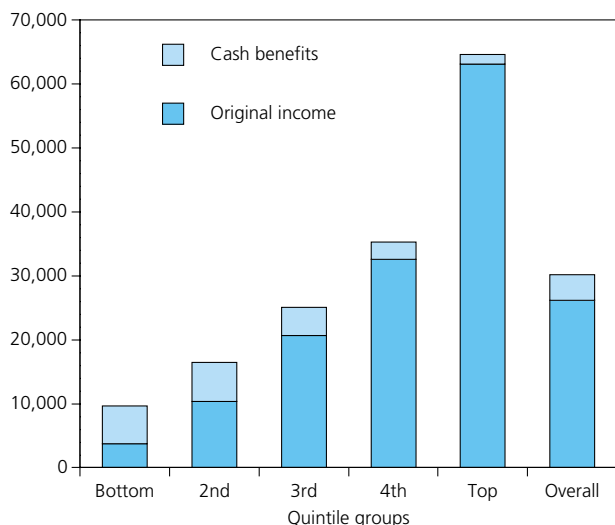


Figure 2
Gross income by quintile groups for ALL households, 2003–04

Average income per household (£ per year)



particularly the state pension. Figure 2 shows gross income broken down into original income and cash benefits by the quintile distribution for equivalised disposable income.

Direct taxes, except for Council tax and Northern Ireland rates, are progressive – they take a larger proportion of income from those higher up the income distribution because tax is not paid on the first tranche of income and higher rates of tax are paid on higher incomes. 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 (Table 3) by the top fifth of households is 25 per cent compared with 10 per cent for the bottom fifth. For Council tax in Great Britain and domestic rates in Northern Ireland, the top quintile group pays the largest absolute amount (Table 14A). On the other hand, when expressed as a proportion of gross income (Table 3), the impact of Council tax in Great Britain and domestic rates in Northern Ireland 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, that is, they are regressive. On average, higher income households channel a relatively high proportion of their income into savings and mortgage payments. These do not attract indirect taxes. In addition, the recorded expenditure of some lower income households is higher than their recorded current incomes. This results in relatively large payments of indirect tax. Despite this, the top fifth of households still pay more indirect tax in absolute terms than other households, see Table 14A.

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 also lead to a reduction in inequality.

In 2003–04, three new tax credits were introduced: the child tax credit (CTC), working tax credit (WTC) and pension credit (PC). CTC and WTC have replaced working families'

tax credit, disabled person's tax credit, and children's tax credit, as well as some child allowances which were awarded as part of other benefits. PC has replaced Minimum Income Guarantee. In previous analyses, these tax credits were all treated as cash benefits. However, because of the way that the new tax credits are integrated within the tax system, CTC and WTC payments will be treated as negative income tax, at least to the extent that income tax *less* tax credits remains greater than or equal to zero, for each family. So now only for households paying little or no income tax, are tax credit payments treated either partially or wholly, as cash benefits. This is consistent with the way that tax credits are treated within the National Accounts.

Tax credit payments which are treated as negative income tax, rather than cash benefits, reduce the amount of income tax paid by households. These payments are made predominantly to households in the middle three quintiles, and the average amount of income tax paid by these households is reduced by between £180 and £220 per year. Treating these payments as negative income tax, rather than cash benefits, means they are no longer part of gross income, which as a result is lower by this amount. Tables which present 2003–04 data, but with tax credits treated as in previous years, are available on request. This article includes Table 3A, which shows taxes as a percentage of gross income, using the old treatment of tax credits, to enable comparison with previous years. The data on tax credit payments presented in this analysis, are thought to under-estimate the true level of payments due to under-reporting in the Expenditure and Food Survey (EFS). Further details are provided in the section on concepts and sources.

Characteristics across the income distribution

As described in more detail later, households are ranked by their equivalised disposable income, which the analysis uses 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. As a result, larger households will be lower down the income distribution than smaller households with the same absolute income.

Some household types are more likely to be in higher income groups, while others tend to appear in the lower groups (Tables 4, 15 and 15A). Single person households are slightly more likely to be in the higher income groups, while households consisting of two adults with no children, are very clearly concentrated in those higher groups.

Households containing two adults with children tend to be not quite as high up the income distribution as those with no children. Those with one child tend to have slightly higher incomes than those with two children, while those with three or more children are more likely to be in the bottom half of the distribution.

Households which consist of only one adult with children are much more concentrated in the lower income groups. Retired households are also concentrated in the bottom half of 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 spread across income groups but there are more men in households in the higher groups than in the lower groups.

Trends in income inequality

As shown in Figure 5 and Table 27, inequality of disposable income was fairly stable in the first half of the 1980s then increased during the second half of the 1980s. Inequality has shown no consistent trend since the start of the 1990s.

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

Concepts and sources

Redistribution through taxes and benefits

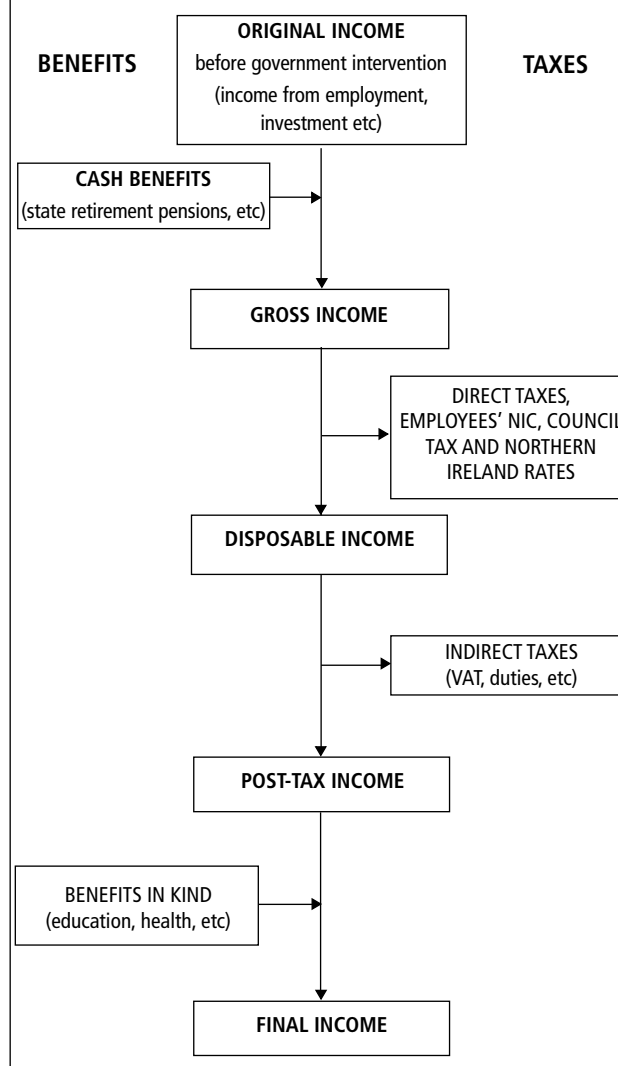
This study examines how taxes and benefits redistribute income. It adds the value of government benefits to the private income of households and subtracts the value of taxes to look at different measures of household income.

Diagram 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 diagram 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 is 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 £287 billion of taxes and compulsory social contributions have been allocated to households. This is equivalent to 64 per cent of general government expenditure, which totalled around £448 billion in 2003 (Table 13). Similarly, £247 billion of cash benefits and benefits in kind have been allocated to households, making up 55 per cent of general government expenditure (Table 13).

The estimated values of taxes and benefits reflect the methodology used in this study. 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 surveys 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. A household is

Diagram 1
Stages of redistribution



defined in terms of the harmonised definition as used in the Census and nearly all other government household surveys since 1981. This is one person, or a group of persons, who have the accommodation as their only or main residence and (for a group) share the living accommodation, that is a living or sitting room, or share meals together or have common housekeeping. Up until 1999–2000, the definition was based on the pre-1981 Census definition and required members to share eating and budgeting arrangements as well as shared living accommodation. The definition of a household comprised people who lived at the same address and who shared common catering for at least one meal a day. The effect of the change was fairly small, but not negligible.

For this reason, one should be cautious about making direct comparisons with earlier studies. Comparisons with previous years are also affected by sampling error. This is especially true for estimates which are based on sub-samples such as the results for decile or quintile groups, or particular households types, which will be subject to relatively larger sampling errors.

Time series are presented for some of the more robust measures, and these include Gini coefficients and other measures of inequality in Tables 26 and 27. We do not think it

is appropriate to equivalise the final income measure because this contains notional income from benefits in kind (for example, state education): the equivalence scales used in the article are based on actual household spending and do not, therefore, apply to such items as notional income.

Unit of analysis

The unit of analysis used in this study is the household. The households are ranked by their equivalised disposable income, which the analysis uses 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. The equivalence scale used in this analysis is the *McClements scale* (before housing costs are deducted). So a single person's income of £6,100 is treated as equivalent to an income of £10,000 for a couple (see Appendix 2, paragraph 48). 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 analysis 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.

Data source

The main data source for this analysis is the Expenditure and Food Survey (EFS) which covers about 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 peoples' homes, are excluded. The EFS brought together and replaced the Family Expenditure Survey (FES) and the National Food Survey from 2001–02. However, the income questions were essentially unchanged.

The survey results are re-weighted and grossed so that the totals reflect the whole household population in terms of age, sex and region. Different initial weights 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 EFS. Studies have indicated that the EFS suffers from under-representation of individuals at the very top of the income distribution. This under-representation is not directly corrected by the re-weighting and grossing methodology and may lead to some under-estimation of

income. Those who are interested in the level of income for the top decile group of the income distribution should refer to the Department for Work and Pensions publication *Households Below Average Income 2003–04*.¹ This analysis 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.

The estimates of CTC and WTC payments presented in this analysis under-estimate the true level of payments and so need to be interpreted with some caution. Comparing estimates from the EFS with administrative data from HM Revenue and Customs (HMRC), the EFS estimate of total tax credit payments to all households is only around 60 per cent of the HMRC figure.

Some tax credit payments may be included in estimates of wages and salaries – WTC is often received through the pay packet.

However, it is likely that the EFS does not succeed in identifying all the sample households that are in receipt of tax credits. In 2003–04 this was exacerbated by administrative problems with the processing of claims in the first few months after the introduction of the new tax credits in April 2003. For many households there were delays before a backdated award was received. This meant that EFS interviews which took place in the early months of the year would not have recorded the payment of tax credits, even though an award may subsequently have been made for that period. This under-reporting will result in lower estimates of income. Further work is needed to try and improve estimation of tax credit payments.

Further details of the concepts and methodology used are given in Appendix 2.

The results of the analysis are reported in three sections. The first looks at the effects for all households. Non-retired and 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.

Table 1

Comparison between old and new table and figure numbers, and additional tables and figures

Old table or chart number	New Name	Description
Chart 1	Diagram 1	Stages of redistribution
	Figure 1	Original income and final income by quintile groups of all households, 2003–04
	Figure 2	Gross income (original income & cash benefits) by quintile groups of all households, 2003–04
Chart 2	Figure 3	Sources of gross income by quintile groups of equivalised disposable income, 2003–04
Chart 3	Figure 4	Summary of the effects of taxes and benefits on all households, 2003–04
Chart 4	Figure 5	Gini coefficients 1981 to 2003–04
Chart 5	Figure 6	Income stages by non-retired household types, 2003–04
Look up table	Table 1	Comparison between old tables and new table numbers and additional tables
A	Table 2	Percentage shares of household income and Gini coefficients, 2003–04
B	Table 3	Taxes as a percentage of gross income, disposable income and expenditure for all households by quintile groups, 2003–04
	Table 3A	Taxes as a percentage of gross income, disposable income and expenditure for all households by quintile groups – tax credits treated wholly as a benefit, 2003–04
C	Table 4	Summary of the effects of taxes and benefits by quintile groups of all households, 2003–04
D	Table 5	Percentage shares of household income and Gini coefficients for non-retired households, 2003–04
E	Table 6	Summary of the effects of taxes and benefits on non-retired households by quintile groups, 2003–04
F	Table 7	Cash benefits for non-retired households by quintile groups, 2003–04
G	Table 8	Taxes as a percentage of gross income for non-retired households by quintile groups, 2003–04
H	Table 9	Indirect taxes as a percentage of (a) disposable income and (b) household expenditure for non-retired households by quintile groups, 2003–04
I	Table 10	Benefits in kind for non-retired households by quintile groups, 2003–04
J	Table 11	Percentage shares of household income and Gini coefficients for retired households, 2003–04
K	Table 12	Summary of the effects of taxes and benefits on retired households by quintile groups, 2003–04
Appendix 1	Appendix 1	
1	Table 13	Taxes and benefits allocated to households as a percentage of general government expenditure, 2003
2A	Table 14	Average incomes, taxes and benefits by decile groups of all households, 2003–04
New quintiles	Table 14A	Average incomes, taxes and benefits by quintile groups of all households, 2003–04
2B	Table 15	Household characteristics of decile groups of all households, 2003–04
New quintiles	Table 15A	Household characteristics of quintile groups of all households, 2003–04
3A	Table 16	Average incomes, taxes and benefits by decile groups of non-retired households, 2003–04
New quintiles	Table 16A	Average incomes, taxes and benefits by quintile groups of non-retired households, 2003–04
3B	Table 17	Household characteristics of decile groups of non-retired households, 2003–04
New quintiles	Table 17A	Household characteristics of quintile groups of non-retired households, 2003–04
4A	Table 18	Average incomes, taxes and benefits by decile groups of retired households, 2003–04
New quintiles	Table 18A	Average incomes, taxes and benefits by quintile groups of retired households, 2003–04
4B	Table 19	Household characteristics of decile groups of retired households, 2003–04
New quintiles	Table 19A	Household characteristics of quintile groups of retired households, 2003–04
5	Table 20	Average incomes, taxes and benefits by decile groups of non-retired households without children, 2003–04
6	Table 21	Average incomes, taxes and benefits by decile groups of non-retired households with children, 2003–04
7	Table 22	Distribution of households by household type, 2003–04
8	Table 23	Summary of the effects of taxes and benefits, by household type, 2003–04
9	Table 24	Average incomes, taxes and benefits by decile groups of all households (ranked by unadjusted disposable income), 2003–04
10	Table 25	Cross-tabulation of households ranked by disposable income, unadjusted and equivalised, 2003–04
Appendix 2	Appendix 1	Long run time series
1	Table 26	Percentage shares of equivalised total original, gross, disposable and post-tax incomes by quintile groups for all households, 1981 to 2003–04
2	Table 27	Gini coefficients for the distribution of income at each stage of the tax-benefit system
3	Table 27	and P90/P10 and P75/P25 ratios for disposable income for all households, 1981 to 2003–04
Appendix 3	Appendix 2	Methodology and definitions
Diagram A	Diagram 3	Complete income inequality
Diagram B	Diagram 2	Lorenz curve for a typical income distribution

Note:

Symbols The following symbols have been used throughout the article

0 negligible (less than half the final digit shown)

- nil

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 2 summarises the overall effects.

In this analysis, 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 51 per cent of all original income (Table 2). This compares with only 3 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 those at the top. This has an equalising effect on the distribution. It raises the share of income received by the bottom quintile group to 7 per cent of gross income while the share of the top fifth is reduced to 44 per cent. Figure 3 shows a breakdown of gross income by quintiles.

Table 2
Percentage shares of household income and Gini coefficients¹, 2003–04

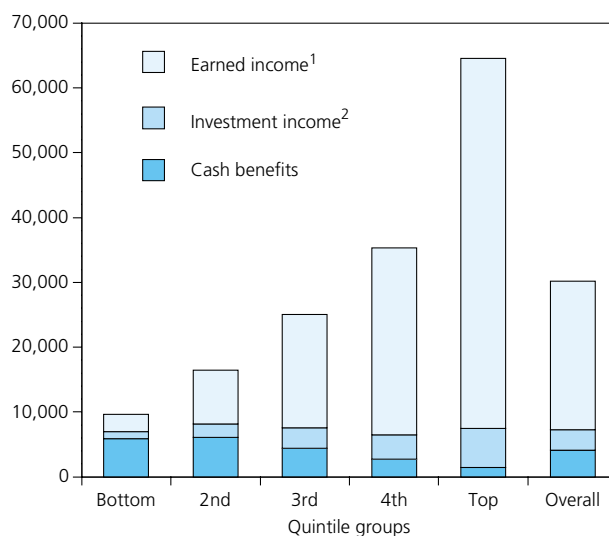
	Percentage shares of equivalised income for ALL households ²			
	Original income	Gross income	Disposable income	Post-tax income
Quintile group ²				
Bottom	3	7	8	7
2nd	7	11	12	12
3rd	15	16	17	16
4th	24	22	22	22
Top	51	44	42	44
All households	100	100	100	100
Decile group ²				
Bottom	1	3	3	2
Top	33	29	27	29
Gini coefficient (per cent)	52	37	34	38

¹ This is a measure of the dispersion of each definition of income (see Appendix 2, paragraph 53).

² Households are ranked by equivalised disposable income.

Figure 3
Sources of gross income by quintile groups of equivalised disposable income, 2003–04

Average per household (£ per year)



¹ Earned income includes wages and salaries, income from self-employment and income from 'fringe benefits'.

² Investment income includes occupational pensions and annuities.

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 3, 14 and 14A 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 together pay about 6 per cent. This compares with 81 per cent of the total paid by the top two-fifths combined.

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 pay 3 per cent in income tax on average 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 in 2003–04 national insurance contributions were levied at 11 per cent on weekly earnings from £89 to £595, and at only 1 per cent thereafter. So many people in the top quintile group will have a significant part of their earnings taxed at this lower rate.

Council tax in Great Britain and domestic rates in Northern Ireland are shown in Tables 3, 14 and 14A. Households in the lower part of the income distribution pay smaller absolute amounts. After taking into account council tax benefits and rates rebates, net payments by the bottom quintile group are typically under half of those in the top fifth.

Table 3

Taxes as a percentage of gross income, disposable income and expenditure for ALL households by quintile groups¹, 2003–04**(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 ALL households ¹					All households
	Bottom	2nd	3rd	4th	Top	
(a) Percentages of gross income						
Direct taxes						
Income tax ³	3.3	5.9	9.9	13.5	18.3	13.5
Employees' NIC	1.4	2.8	4.4	5.4	4.6	4.4
Council tax & Northern Ireland rates ⁴	4.9	3.7	3.1	2.5	1.7	2.5
<i>All direct taxes</i>	<i>9.6</i>	<i>12.4</i>	<i>17.5</i>	<i>21.4</i>	<i>24.6</i>	<i>20.4</i>
Indirect taxes						
VAT	10.7	8.1	7.3	6.4	4.9	6.4
Duty on alcohol	1.5	1.2	1.1	0.9	0.6	0.9
Duty on tobacco	3.2	1.8	1.3	0.9	0.4	1.0
Duty on hydrocarbon oils & Vehicle excise duty	2.9	2.4	2.3	2.1	1.4	1.9
Other indirect taxes	9.7	6.7	5.7	4.8	3.6	5.0
<i>All indirect taxes</i>	<i>28.0</i>	<i>20.3</i>	<i>17.8</i>	<i>15.1</i>	<i>10.9</i>	<i>15.1</i>
<i>All taxes</i>	<i>37.7</i>	<i>32.7</i>	<i>35.2</i>	<i>36.4</i>	<i>35.5</i>	<i>35.5</i>
(b) Percentages of disposable income						
VAT	11.8	9.2	8.9	8.1	6.5	8.0
Duty on alcohol	1.7	1.4	1.4	1.2	0.8	1.1
Duty on tobacco	3.6	2.1	1.5	1.1	0.5	1.3
Duty on hydrocarbon oils & Vehicle excise duty	3.3	2.8	2.8	2.6	1.8	2.4
Other indirect taxes	10.7	7.6	6.9	6.1	4.8	6.2
<i>All indirect taxes</i>	<i>31.0</i>	<i>23.2</i>	<i>21.5</i>	<i>19.2</i>	<i>14.4</i>	<i>19.0</i>
(c) Percentages of expenditure²						
VAT	7.9	8.0	7.9	7.4	7.1	7.5
Duty on alcohol	1.1	1.2	1.2	1.1	0.9	1.1
Duty on tobacco	2.4	1.8	1.4	1.0	0.6	1.2
Duty on hydrocarbon oils & Vehicle excise duty	2.2	2.4	2.5	2.4	2.0	2.3
Other indirect taxes	7.2	6.6	6.1	5.7	5.2	5.9
<i>All indirect taxes</i>	<i>20.8</i>	<i>20.1</i>	<i>19.1</i>	<i>17.7</i>	<i>15.9</i>	<i>17.9</i>

1 Households are ranked by equivalised disposable income.

2 Calculated to be consistent with disposable income. See paragraph 35 of Appendix 2 for the definition of expenditure.

3 After deducting those tax credit payments which are treated as negative income tax (see Appendix 2, paragraph 22), and tax relief at source on life assurance premiums.

4 After deducting discounts, council tax benefits and rates rebates.

Table 3A

Taxes as a percentage of gross income, disposable income and expenditure for ALL households by quintile groups – tax credits treated wholly as a benefit¹, 2003-04**(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 ALL households ²					All households
	Bottom	2nd	3rd	4th	Top	
(a) Percentages of gross income						
Direct taxes						
Income tax ³	3.8	7.2	10.7	13.9	18.4	13.9
Employees' NIC	1.4	2.8	4.4	5.3	4.6	4.3
Council tax & Northern Ireland rates ⁴	4.9	3.6	3.0	2.5	1.7	2.5
<i>All direct taxes</i>	<i>10.1</i>	<i>13.6</i>	<i>18.2</i>	<i>21.7</i>	<i>24.6</i>	<i>20.7</i>
Indirect taxes						
VAT	10.6	8.0	7.3	6.3	4.9	6.3
Duty on alcohol	1.5	1.2	1.1	0.9	0.6	0.9
Duty on tobacco	3.2	1.8	1.3	0.9	0.4	1.0
Duty on hydrocarbon oils & Vehicle excise duty	2.9	2.4	2.3	2.1	1.4	1.9
Other indirect taxes	9.6	6.6	5.6	4.8	3.6	4.9
<i>All indirect taxes</i>	<i>27.9</i>	<i>20.0</i>	<i>17.6</i>	<i>15.0</i>	<i>10.9</i>	<i>15.1</i>
<i>All taxes</i>	<i>38.0</i>	<i>33.6</i>	<i>35.8</i>	<i>36.7</i>	<i>35.5</i>	<i>35.8</i>
(b) Percentages of disposable income						
VAT	11.8	9.2	8.9	8.1	6.5	8.0
Duty on alcohol	1.7	1.4	1.4	1.2	0.8	1.1
Duty on tobacco	3.6	2.1	1.5	1.1	0.5	1.3
Duty on hydrocarbon oils & Vehicle excise duty	3.3	2.8	2.8	2.6	1.8	2.4
Other indirect taxes	10.7	7.6	6.9	6.1	4.8	6.2
<i>All indirect taxes</i>	<i>31.0</i>	<i>23.2</i>	<i>21.5</i>	<i>19.2</i>	<i>14.4</i>	<i>19.0</i>
(c) Percentages of expenditure²						
VAT	7.9	8.0	7.9	7.4	7.1	7.5
Duty on alcohol	1.1	1.2	1.2	1.1	0.9	1.1
Duty on tobacco	2.4	1.8	1.4	1.0	0.6	1.2
Duty on hydrocarbon oils & Vehicle excise duty	2.2	2.4	2.5	2.4	2.0	2.3
Other indirect taxes	7.2	6.6	6.1	5.7	5.2	5.9
<i>All indirect taxes</i>	<i>20.8</i>	<i>20.1</i>	<i>19.1</i>	<i>17.7</i>	<i>15.9</i>	<i>17.9</i>

¹ Households are ranked by equivalised disposable income.² Calculated to be consistent with disposable income. See paragraph 35 of Appendix 2 for the definition of expenditure.³ After deducting tax relief at source on life assurance premiums.⁴ After deducting discounts, council tax benefits and rates rebates.

On the other hand, when expressed as a proportion of gross income, the burden decreases as income rises. Council tax in Great Britain and domestic rates in Northern Ireland represent 5 per cent of gross income for those in 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 EFS. However, the income and expenditure data recorded in the EFS are not fully compatible because they are recorded in different ways (see Appendix 2, paragraph 6). Indeed, measured expenditure exceeds measured income for households 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 addition, the lower decile in particular includes some groups who have, or report, very little income (for example, self-employed people starting a business or someone who has just been made redundant). For some people this spell of very low income may only be temporary and during this period, they may continue with previous patterns of spending. In these cases, expenditure taxes are not being met from current income. Some types of receipts are not included as income in the EFS, for example, inheritance and severance payments. In some cases, the information given on direct tax is not consistent with that on income received, possibly because of timing differences. For a minority of households, the EFS may be measuring incomes inaccurately. Therefore, to give a more complete picture of the impact of indirect taxes, they are shown in Table 3 separately as a proportion of gross income, disposable income and 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.

In cash terms, the top fifth of households pay about two and a half times as much indirect tax as the bottom fifth. However, when expressed as a percentage of 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 gross or disposable income, as shown in Table 3, 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 therefore appear more regressive than when expressed as a proportion of expenditure. However, the top fifth still pay a smaller proportion of their expenditure or income 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 2, paragraph 53). 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 Tables 2 and 27) produce a similar picture to the shares of income discussed earlier. For 2003–04, the figure of 52 per cent for original income is reduced to 37 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 34 per cent. The picture of indirect taxes reversing this effect is confirmed by the Gini coefficient rising to 38 per cent for post-tax income. The Gini coefficients for original, gross, disposable and post-tax income are all slightly higher in 2003–04 than they were in 2002–03, although they are still lower than they were in 2001–02.

As discussed earlier, there are many households in the lowest decile in particular, for which income is temporarily low or possibly under-reported. These households may well be wealthier and have higher expenditures than many households in higher deciles.

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 4, with more detail in Tables 15 and 15A. Household size does not vary much across the income distribution, with an average of between 2.2 and 2.5 people per household in each decile group in 2003–04. There are differences in the split between adults and children. A child (that is, 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. There are fewer children in the upper half of the income distribution, and particularly in the top quintile. 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. The top fifth of households has about three times as many economically active people as the bottom fifth.

Non-retired households with one adult and one or more children are concentrated in the lower groups, as shown in Tables 4, 15A and 22. Around two-thirds 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. Households with three or more children are less likely to have two economically active adults compared to those with fewer children, partly reflecting the fact that the youngest child or children may not yet be of school age. 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 4

Summary of the effects of taxes and benefits by quintile groups on ALL households¹, 2003–04

	Quintile groups of ALL households ¹						Ratio Top/Bottom quintile
	Bottom	2nd	3rd	4th	Top	All households	
Income, taxes and benefits per household (£ per year) ²							
Original income	3 750	10 410	20 710	32 630	63 150	26 130	17
<i>plus</i> cash benefits	5 910	6 090	4 360	2 690	1 420	4 100	0
Gross income	9 660	16 500	25 070	35 330	64 570	30 230	7
<i>less</i> direct taxes ³ and employees' NIC	930	2 050	4 380	7 540	15 890	6 160	17
Disposable income	8 730	14 450	20 700	27 780	48 680	24 070	6
<i>less</i> indirect taxes	2 710	3 350	4 460	5 320	7 030	4 570	3
Post-tax income	6 020	11 100	16 240	22 460	41 650	19 500	7
<i>plus</i> benefits in kind	5 720	5 280	5 020	4 270	3 340	4 730	1
Final income	11 750	16 380	21 270	26 730	44 990	24 220	4
Number of individuals per household							
<i>Children</i> ⁴	0.6	0.6	0.6	0.5	0.4	0.5	
<i>Adults</i>	1.6	1.7	1.9	2.0	1.9	1.8	
<i>Men</i>	0.7	0.8	0.9	1.0	1.0	0.9	
<i>Women</i>	0.9	0.9	1.0	1.0	0.9	1.0	
People	2.2	2.3	2.5	2.5	2.3	2.4	
People in full-time education	0.6	0.5	0.6	0.5	0.3	0.5	
Economically active people	0.5	0.8	1.3	1.6	1.7	1.2	
Retired people	0.6	0.6	0.5	0.3	0.2	0.4	
Household type (percentages)							
Retired	40	41	27	16	8	26	
Non-retired							
1 adult	15	11	12	14	21	15	
2 adults	12	12	19	27	39	22	
1 adult with children ⁵	12	7	5	3	1	6	
2 adults with children	14	19	23	23	19	20	
3 or more adults ⁶	8	10	15	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 (after deducting those tax credit payments which are treated as negative income tax (see Appendix 2, paragraph 22), and tax relief at source on life assurance premiums), Council tax and Northern Ireland rates but after deducting discounts, council tax benefits and rates 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 with 62 per cent falling into the bottom two quintile groups (as shown in Table 22). Those consisting of 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 4, with more detailed information for decile groups in Table 14 and quintile groups in Table 14A.

On average, households receive about £26,100 a year in original income but this varies widely between households. Those in the top quintile group have around £63,200 compared with about £3,700 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, as shown in Tables 15 and 15A, nine in ten chief economic supporters of households in the top quintile group are economically active compared with three in ten of those in the lowest. The chief economic supporters in the top fifth are predominantly full-time employees or self-employed. 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.

Wages and salaries and income from self-employment are typically the most important source of income, together making up three-quarters of gross income on average (as shown in Table 14A). Cash benefits are also a significant source, particularly for households in the lower half of the distribution. This will include those tax credit payments which are treated as benefits. Of the total amount of cash benefits received, the bottom two quintile groups together receive 59 per cent. These households typically receive around

£6,000 from cash benefits, representing around 61 per cent of gross income for the bottom quintile group and 37 per cent for the next group.

Higher income groups pay both higher amounts of direct tax and higher proportions of their income in direct tax (Tables 3, 4, 14 and 14A). The top quintile group pays about £15,900 per household in income tax, national insurance contributions and Council tax or Northern Ireland rates – 25 per cent of gross income. In contrast, the direct tax bill for households in the bottom fifth is around £900, representing 10 per cent of their gross income. Looking at income tax on its own, around 81 per cent of the total is paid by the top two quintile groups. The average amount of income tax paid by households is reduced by tax credit payments which are treated as negative income tax. This mainly affects households in the middle three quintiles where the average amount of income tax paid is reduced by between £180 and £220.

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 £5,700 from all benefits in kind, compared to £3,300 received by the top fifth (see Figure 4). These are described in more detail later in the analysis.

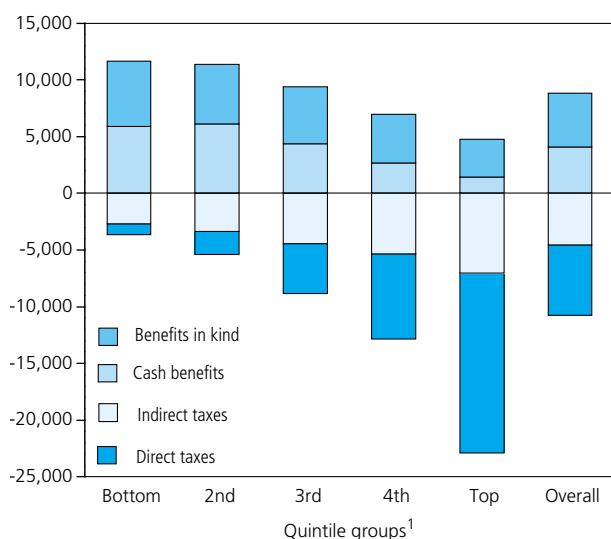
Taken as a whole, the tax and benefit systems redistribute income from high income households to those on low incomes. The average final income for the quintile groups ranges from £11,700 to £45,000, a ratio of one to four compared to a ratio of one to 17 for original income, that is, before government intervention, as shown in Table 4.

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. Tables 26 and 27 (at the end of Appendix 1) show trends for three measures of inequality. Table 26 shows trends for the shares of income figures that have already been seen for 2003–04 earlier in this analysis. Table 27 contains time series for Gini coefficients and 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 and the 75th percentile is the income below which three quarters of households lie.) An advantage of the measure of the ratio of the 75th percentile to the 25th is that it is not affected by extreme values at either end of the distribution, which may be inaccurately measured. However, it does not reflect changes within households in the middle of the distribution.

Figure 4
Summary of the effects of taxes and benefits on ALL households, 2003–04

Average income per household (£ per year)



1 Households are ranked throughout by their grossed equivalised disposable incomes.

Figure 5
Gini coefficients, 1981 to 2003–04

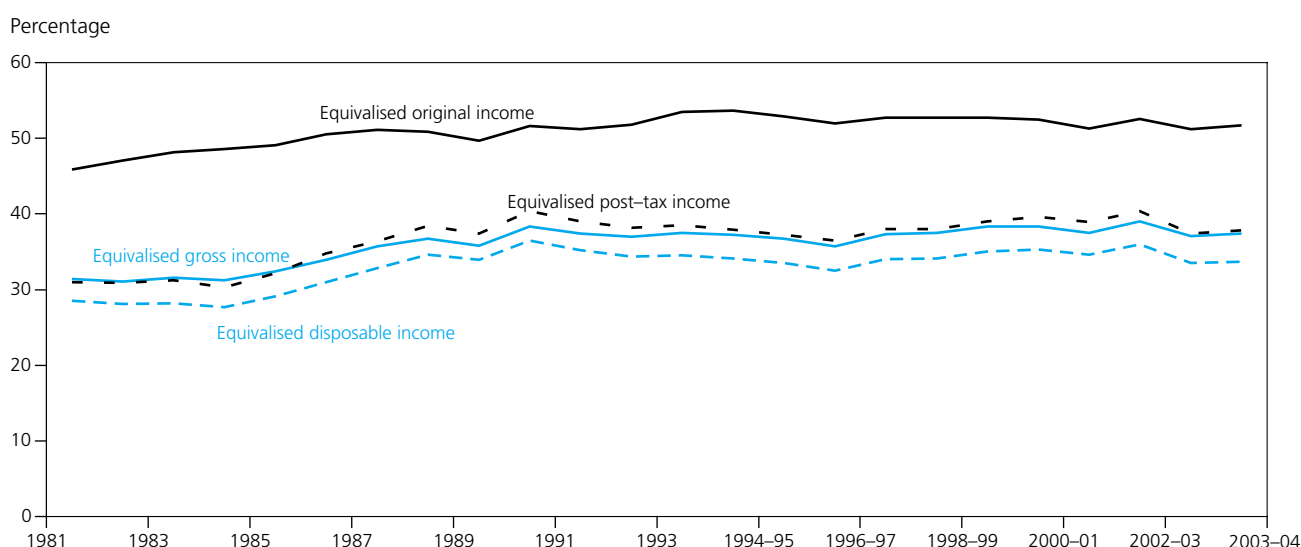


Figure 5 shows how inequality has been changing over time since 1980 for the various measures of income as measured by the Gini coefficient. It indicates several phases over the last two decades and shows that the different measures of income do not always show the same trend in inequality.

The 1980s were characterised by a large increase in inequality. The Gini coefficient for original income rose fairly 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 a rise in the second half of the 1980s.

The data since 1990 shows a different story. Inequality of original, disposable and post-tax income have shown no consistent trend since the start of the 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 Figure 5 using software developed at the London School of Economics.² These show that, in most cases, the year-on-year changes are within the bounds of sampling variation. However, when we look at changes over periods of more than one year there are changes which cannot be explained by variation introduced by the sampling process.

Table 26 shows trends in the shares of income and tells the same story as the Gini coefficient: one of increasing inequality of disposable income in the 1980s then a flatter picture in the 1990s. Changes in income distribution over time have been the focus of much study. The Organisation for Economic Co-operation and Development (OECD)³ 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 deregulation of labour and product markets.

Other explanations for trends in recent years offered by, for example, the Institute for Fiscal Studies (IFS)⁴ include: the effect of wage growth in some areas; the change in the importance of self-employment income; the change in the level of unemployment and the type of people affected; the importance of additional income sources; demographics; and the tax and benefit system.

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, as shown in Table 5, than for all households, as shown in Table 2. However, after the process of redistribution, the shares of income and Gini coefficients for post-tax income are the same as those for all households. 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 6, with more detail in Tables 16 and 16A.

Characteristics of households

Unlike for all households, the average household size tends to decrease as income increases, as shown in Tables 17 and 17A. This fall is largely accounted for by the decrease in the average number of children in each household from 1.0 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 41 per cent of these households in the bottom fifth and a further 25 per cent in the second quintile group (Table 22). Two adult households with three or more children are also concentrated towards the bottom although not to the same extent. Two adult households without children are over-represented at the top.

Table 5
Percentage shares of household income and
Gini coefficients¹ for NON-RETIRED households,
2003–04

	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	6
2nd	10	12	12	12
3rd	16	16	17	16
4th	24	23	22	22
Top	47	43	41	44
All non-retired households	100	100	100	100
Decile group ²				
Bottom	1	2	3	2
Top	30	28	27	29
Gini coefficient (per cent)	45	37	34	38

1 This is a measure of the dispersion of each definition of income (see Appendix 2, paragraph 53).

2 Households are ranked by equivalised disposable income.

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. One woman households are more evenly spread throughout the income groups.

Original income

The average original income for non-retired households is £32,700 (Table 6). As mentioned above, inequality of original income is lower for non-retired households than for all households. The ratio of the average for the top quintile group to the bottom is 11 to one (compared to 17 to one 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 twice as many economically active people as those in the lowest group, as shown in Table 6.

Cash benefits

Table 7 gives a summary of the benefits that each quintile group receives. There are two types of cash 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.

Table 6
Summary of the effects of taxes and benefits on NON-RETIRED households by quintile groups¹, 2003–04

	Quintile groups of NON-RETIRED households ¹					All non-retired households	Ratio Top/Bottom quintile
	Bottom	2nd	3rd	4th	Top		
Income, taxes and benefits per household (£ per year)							
Original income	6 180	18 310	28 770	39 880	70 570	32 740	11
<i>plus</i> cash benefits	5 540	4 030	2 280	1 580	900	2 870	0
Gross income	11 730	22 340	31 050	41 460	71 460	35 610	6
<i>less</i> direct taxes ² and employees' NIC	1 240	3 540	6 270	9 490	17 890	7 690	14
Disposable income	10 480	18 790	24 780	31 970	53 580	27 920	5
<i>less</i> indirect taxes	3 360	4 390	5 270	5 970	7 350	5 270	2
Post-tax income	7 130	14 400	19 510	26 000	46 230	22 650	6
<i>plus</i> benefits in kind	6 310	5 720	4 810	4 010	3 220	4 810	1
Final income	13 430	20 110	24 320	30 010	49 440	27 460	4
Number of individuals per household							
<i>Children</i> ³	1.0	0.9	0.7	0.5	0.4	0.7	
<i>Adults</i>	1.8	2.0	2.0	2.1	1.9	1.9	
<i>Men</i>	0.8	0.9	1.0	1.1	1.0	1.0	
<i>Women</i>	0.9	1.0	1.0	1.0	0.9	1.0	
People	2.8	2.9	2.8	2.6	2.3	2.7	
People in full-time education	1.0	0.9	0.7	0.5	0.4	0.7	
Economically active people	0.9	1.5	1.8	1.9	1.8	1.6	
Retired people	0.1	0.1	0.1	0.1	0.1	0.1	

1 Households are ranked by equivalised disposable income.

2 These are income tax (after deducting those tax credit payments which are treated as negative income tax (see Appendix 2, paragraph 22), and tax relief at source on life assurance premiums), Council tax and Northern Ireland rates but after deducting discounts, council tax benefit and rates rebates.

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

Table 7
Cash benefits for NON-RETIRED households by quintile groups¹, 2003–04

	Quintile groups of NON-RETIRED households ¹					All non- retired house- holds
	Bottom	2nd	3rd	4th	Top	
Average per household (£ per year)						
Contributory						
Retirement pension	230	560	500	580	260	420
Incapacity benefit	650	390	210	140	30	290
Job seeker's allowance ²	70	10	10	0	0	20
Other	50	60	50	50	40	50
Total contributory	990	1 020	760	770	330	780
Non-contributory						
Income support ³	1 460	490	190	40	20	440
Tax credits ⁴	470	530	210	80	20	260
Child benefit	670	650	510	370	270	500
Housing benefit	1 190	500	170	60	40	390
Job seeker's allowance ⁵	180	30	20	0	-	50
Sickness/disablement related	430	660	350	180	90	340
Other	150	150	80	80	120	120
Total non-contributory	4 550	3 010	1 520	810	570	2 090
Total cash benefits	5 540	4 030	2 280	1 580	900	2 870
Cash benefits as a percentage of gross income						
	47	18	7	4	1	8

1 Households are ranked by equivalised disposable income.

2 Contribution based.

3 Including pension credit.

4 Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).

5 Income based.

For non-retired households, non-contributory benefits make up nearly three-quarters of all cash benefits on average.

The average non-retired household receives £2,900 in cash benefits. The bottom fifth receive nearly double this amount while those in the top quintile group typically get £900. 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. The presence of some individuals with low incomes in high income households means that some payments are recorded further up the income distribution. Of the total amount of income support and housing benefit paid to non-retired households, 88 per cent goes to the bottom two-fifths, with the majority of this going to the bottom quintile.

Child benefit is based on the number of children in the household. Levels of child benefit received are therefore higher at the lower end of the distribution, as these households tend to have more children. Working tax credits

and child tax credits, which are in excess of any income tax paid by the household and so are regarded as benefits, go predominantly to households with lower incomes. Of the total amount, 76 per cent goes to the bottom two quintiles although, unlike income support and housing benefit, more is paid to the second quintile than the bottom quintile.

In contrast to non-contributory benefits, a criterion for receipt of contributory benefits is the amount of national insurance contributions that have been paid by, or on behalf of, the individual. The amounts received from these benefits are higher in the first two quintile groups than in the top three groups.

For all non-retired households, as shown in Table 7, cash benefits provide 8 per cent of gross income on average. For those in the bottom quintile group they form a much larger proportion – 47 per cent. Their payment results in a significant reduction in income inequality.

Direct taxes

Households at the lower end of the income distribution pay smaller amounts of direct tax (including income tax, employees' national insurance contributions, and Council tax and Northern Ireland rates net of council tax benefits and rates rebates) compared with households with higher incomes (Tables 16 and 16A). Of the total income tax paid by non-retired households, the bottom two quintile groups together pay about 9 per cent. This compares with about 76 per cent of the total paid by the top two-fifths.

Households receiving tax credits pay a slightly reduced amount of income tax. The biggest effect is on households in the second quintile who pay on average £370 less income tax.

Table 8
Taxes as a percentage of gross income for NON-RETIRED households by quintile groups¹, 2003–04

	Quintile groups of NON-RETIRED households ¹					All non- retired house- holds
	Bottom	2nd	3rd	4th	Top	
Percentages						
Direct taxes						
Income tax ²	4.6	8.2	11.9	14.6	18.9	14.4
Employees' NIC	2.5	4.6	5.6	6.1	4.6	5.0
Council tax & NI rates ³	3.5	3.1	2.6	2.3	1.5	2.2
All direct taxes	10.6	15.9	20.2	22.9	25.0	21.6
All indirect taxes	28.6	19.7	17.0	14.4	10.3	14.8
All taxes	39.2	35.5	37.2	37.3	35.3	36.4

1 Households are ranked by equivalised disposable income.

2 After deducting those tax credit payments which are treated as negative income tax (see Appendix 2, paragraph 22), and tax relief at source on life assurance premiums.

3 Council tax and Northern Ireland rates after deducting discounts, council tax benefit and rates rebates.

In addition, low income households also pay a smaller proportion of their income in income tax (Table 8). 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 5 per cent in income tax compared with 19 per cent for those in the top quintile group.

In 2003–04 national insurance contributions were levied at 11 per cent on weekly earnings from £89 to £595 and at only 1 per cent thereafter. This was a change from 2002–03 when contributions were levied at 10 per cent on earnings from £89 to £585, with no contribution for earnings above this level. Table 8 shows that, for the average non-retired household, national insurance contributions accounted for 5 per cent of gross income. This had increased from 4.3 per cent in 2002–03.

Council tax in Great Britain and domestic rates in Northern Ireland are shown net of council tax benefits and rates rebates in Tables 8, 16 and 16A. Households in the lower part of the income distribution pay smaller absolute amounts in local taxes. Net payments by the bottom quintile group are only about two-fifths of those in the top fifth (Table 16A). When expressed as a proportion of gross income in Table 8, the impact decreases as income rises. Council tax and Northern Ireland rates represent 3.5 per cent of gross income for the bottom fifth but only 1.5 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 EFS. However, as described earlier in this analysis, the income and

expenditure data recorded in the EFS are not fully compatible because they are recorded in different ways (see Appendix 2, paragraph 6). Therefore, to give a more complete picture of the impact of indirect taxes, they are shown in Table 9 as a proportion of disposable income and, separately, as a proportion of expenditure. In addition, indirect taxes are also shown as a proportion of gross income in Table 8 so that the impact of direct and indirect taxes can be compared.

In cash terms, the top fifth of non-retired households pay over twice as much indirect tax as the bottom fifth (Table 16A). On the other hand, when expressed as a percentage of disposable income or expenditure (Table 9), 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. These 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 largest

Table 9

Indirect taxes as a percentage of (a) disposable income and (b) household expenditure¹ for NON-RETIRED households by quintile groups², 2003–04

	Quintile groups of NON-RETIRED households ²					All non-retired households
	Bottom	2nd	3rd	4th	Top	
(a) Percentages of disposable income						
VAT	12.2	9.4	8.8	7.9	6.2	7.9
Duty on alcohol	1.7	1.4	1.3	1.2	0.8	1.1
Duty on tobacco	4.1	2.0	1.5	1.1	0.5	1.3
Duty on hydrocarbon oils & Vehicle excise duty	3.4	3.1	2.9	2.6	1.7	2.4
Other indirect taxes	10.6	7.4	6.7	5.9	4.5	6.1
All indirect taxes	32.0	23.4	21.3	18.7	13.7	18.9
(b) Percentages of expenditure¹						
VAT	8.0	7.9	7.6	7.4	7.0	7.4
Duty on alcohol	1.1	1.2	1.1	1.1	0.9	1.1
Duty on tobacco	2.7	1.7	1.3	1.0	0.5	1.2
Duty on hydrocarbon oils & Vehicle excise duty	2.3	2.6	2.5	2.4	1.9	2.3
Other indirect taxes	7.0	6.3	5.8	5.5	5.1	5.7
All indirect taxes	21.1	19.7	18.3	17.4	15.5	17.7

¹ Calculated to be consistent with disposable income. See paragraph 35 of Appendix 2 for the definition of expenditure.

² Households are ranked by equivalised disposable income.

two categories for which such imputations are made are health and education services. The imputed value of these benefits is based on the estimated cost of providing them. This expenditure on health and education, which is allocated to households, is equivalent to around 27 per cent of total general government expenditure, as shown in Table 13. Other items for which imputations are made are free school meals, welfare milk, housing subsidy and travel subsidies. These items are equivalent to a further 1 per cent of general government expenditure. Table 10 gives a summary of the value of these benefits for each quintile group for non-retired households.

The benefit in kind from education is allocated to a household according to its members' use of state education (Appendix 2, paragraph 38). Households in the lower quintiles receive the highest benefit from education, as shown in Table 10. This is due to the concentration of children in this part of the distribution. In addition, children in households in the higher quintiles are more likely to be attending private schools and an allocation is not made in these cases. The impact of expenditure on free school meals and welfare milk 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 EFS does not contain this information (Appendix 2, paragraph 40). 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 is similar in the bottom two quintiles then falls gradually as income rises, as shown in Table 10. This pattern is a reflection of the demographic composition of households. Studies by Sefton⁵

have attempted to allow for variations in use of the health service according to socio-economic characteristics.

The housing subsidy, which excludes housing benefit (Appendix 2, paragraph 41), is spread between public sector, housing association and Registered Social Landlord tenants. Since such households tend to be concentrated in the lower half of the income distribution, this is where the imputed benefit is highest, as shown in Table 10.

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 estimates of these subsidies being higher for households in higher income quintiles. This pattern is also due to London and the South East having higher 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 88 per cent for the lowest quintile group to 7 per cent for the highest, as shown in Table 10. 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 shown in Figure 6, only those containing one adult and children are net gainers, with average final incomes of £19,400 compared to original incomes of £9,200 (Table 23). This table also 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.

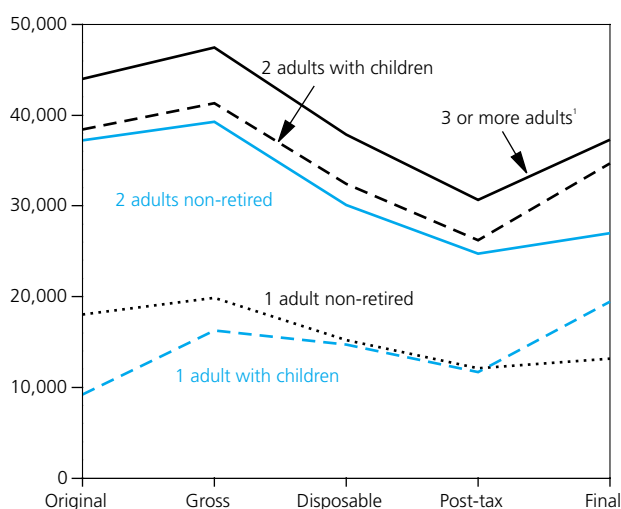
Table 10
Benefits in kind for NON-RETIRED households by quintile groups¹, 2003–04

	Quintile groups of NON-RETIRED households ¹					All non-retired households
	Bottom	2nd	3rd	4th	Top	
Average per household (£ per year)						
Education	3 620	3 010	2 210	1 630	1 060	2 310
National health service	2 390	2 540	2 460	2 250	2 010	2 330
Housing subsidy	110	50	30	10	0	40
Travel subsidies	70	80	90	110	150	100
School meals and welfare milk	110	40	10	10	0	30
All benefits in kind	6 310	5 720	4 810	4 010	3 220	4 810
Benefits in kind as a percentage of post-tax income	88	40	25	15	7	21

¹ Households are ranked by equivalised disposable income.

Figure 6
Income stages by NON-RETIRED household types, 2003–04

Average income (£ per year)



¹ With or without children.

Original income is strongly related to the number of adults in the household. For two adult households, those with children have broadly similar levels of original income to those without, but receive more cash benefits than those without. This reflects the effect of receiving child benefit as well as CTC and WTC. The effect of taxes is 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 2, paragraph 9 for the definition of a retired person). These households have quite distinct income and expenditure patterns. The tax and benefit systems affect them in different ways from non-retired households.

There is a high degree of inequality in original income between households. Tables 11, 18 and 18A show that, before government intervention, the richest fifth of retired households receive 57 per cent of total original income, while the Gini coefficient for this measure of income is 63 per cent. Both these measures are higher (showing more inequality) than equivalent figures for non-retired households. 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. 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 £7,500 in original income with most of this coming from occupational pensions and investments (Tables 12, 18 and 18A). Original income ranges from £1,400 for the bottom quintile group to £20,700 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 £5,900 from this source, while those in the second to fifth quintile groups receive between £7,700 and £8,500. 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 50 per cent for the fourth quintile group. The top fifth are much less dependent on cash benefits – these account for only 27 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 these is the state retirement pension, which on average accounts for three-quarters of their cash benefits (Tables 12, 18 and 18A).

Non-contributory benefits are lowest in the bottom quintile group, where almost three-quarters of households own their homes outright (Table 19A) and so receive little in the way of housing benefit. In addition, as shown in Table 18A, 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. 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, housing and travel subsidies. Health benefit is spread fairly evenly between retired households whereas benefit from the housing subsidy is higher for those in the middle 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 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 23 gives some details of the effect of taxes and benefits on different types of 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 received £6,800 compared to £3,700 for women. After the addition of benefits and the deduction of taxes, the differences are greatly reduced, so that final income levels for these men is only marginally higher than for women.

Table 11
Percentage shares of household income and Gini coefficients¹ for RETIRED households, 2003–04

	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	9
2nd	7	14	14	14
3rd	11	17	17	17
4th	21	22	22	22
Top	57	38	36	37
All retired households	100	100	100	100
Decile group ²				
Bottom	2	4	4	4
Top	40	24	22	23
Gini coefficient (per cent)	63	28	26	30

¹ This is a measure of the dispersion of each definition of income (see Appendix 2, paragraph 53).

² Households are ranked by equivalised disposable income.

Table 12

Summary of the effects of taxes and benefits on RETIRED households by quintile groups¹, 2003-04

	Quintile groups of RETIRED households ¹					All retired households
	Bottom	2nd	3rd	4th	Top	
Income, taxes and benefits per household (£ per year)						
Original income						
Earnings	90	90	430	790	1 450	570
Occupational pensions	950	2 100	3 220	6 660	14 630	5 510
Investment income	320	490	540	1 030	4 450	1 370
Other income	20	50	50	80	120	70
Total original income	1 380	2 730	4 250	8 560	20 660	7 510
<i>plus</i> Contributory benefits	5 040	6 170	5 800	6 170	5 970	5 830
Non-contributory benefits	830	1 530	2 270	2 310	1 690	1 730
Total cash benefits	5 870	7 700	8 070	8 480	7 660	7 560
Gross income	7 250	10 430	12 320	17 030	28 320	15 070
<i>less</i> Income tax ²	90	270	440	1 130	3 660	1 120
Employees' NIC	10	0	10	40	130	40
Council tax & Northern Ireland rates ³	600	600	540	730	980	690
Disposable income	6 560	9 560	11 310	15 130	23 550	13 220
<i>less</i> Indirect taxes	1 720	2 150	2 310	2 990	3 890	2 610
Post-tax income	4 840	7 410	9 000	12 140	19 660	10 610
<i>plus</i> National health service	4 550	4 470	4 150	4 490	3 910	4 310
Housing subsidy	40	60	80	60	30	50
Other benefits in kind	120	120	120	130	150	130
Final income	9 550	12 060	13 350	16 830	23 740	15 110
Cash benefits as a percentage of gross income	81	74	66	50	27	50
Retirement pension as a percentage of cash benefits	85	79	70	71	76	76

¹ Households are ranked by equivalised disposable income.

² After deducting those tax credit payments which are treated as negative income tax (see Appendix 2, paragraph 22), and tax relief at source on life assurance premiums.

³ Council tax and Northern Ireland rates after deducting discounts, council tax benefit and rates rebates.

Acknowledgements

The author gratefully acknowledges the considerable work done for this study by Caroline Lakin, Peter Mayne, Paul Janvier, Daniel Annan, Craig Corbet, and Usuf Islam.

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APPENDIX 1

Table 13 (Appendix 1)

Taxes and benefits allocated to households as a percentage of general government expenditure, 2003

Taxes and compulsory social contributions ¹ allocated to households			Benefits allocated to households		
	£ million	Percentage of GGE ²		£ million	Percentage of GGE ²
Income tax (gross)	113 140	25.3	Cash benefits		
Tax reliefs	–60	0.0	Contributory (National Insurance, etc)		
Income tax (net)	113 080	25.3	Retirement	46 010	10.3
			Incapacity benefit	6 800	1.5
Employees' & self-employed NI contributions	32 180	7.2	Widows' and guardians' allowances	1 030	0.2
Council tax	18 420	4.1	Maternity/Statutory maternity pay	1 110	0.2
			Job seekers allowance	520	0.1
			Social fund	2 160	0.5
			Other	290	0.1
Taxes on final goods and services					
VAT	51 770	11.6	Non-contributory		
Duty on hydrocarbon oils	11 340	2.5	Income support	15 000	3.4
Duty on tobacco	7 840	1.8	Working and child tax credits	6 860	1.5
Vehicle excise duty	3 710	0.8	Other family benefits	9 370	2.1
Duty on wines, cider, perry and spirits	4 190	0.9	War pensions	1 110	0.2
Duty on beer	2 830	0.6	Other	17 370	3.9
Betting duties	850	0.2			
Camelot: payments to NLDF	1 180	0.3	Student support	880	0.2
Stamp duty on house purchase	1 970	0.4			
Other	2 120	0.5	Rent rebates and allowances	11 950	2.7
Taxes & NI contributions on Intermediate goods & services ³			Benefits in kind		
Employers' NI contributions	13 380	3.0	Health services	71 460	16.0
Commercial & industrial rates	8 540	1.9	Education	51 030	11.4
Duty on hydrocarbon oils	5 700	1.3	Travel subsidies ⁴	2 320	0.5
VAT	3 740	0.8	Housing subsidy	1 150	0.3
Vehicle excise duty	450	0.1	School meals and welfare milk	960	0.2
Other	3 340	0.7			
Total	286 630	64.0	Total	247 380	55.2
Total government expenditure	447 760				

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, 2003 Edition.

Table 14 (Appendix 1)

Average incomes, taxes and benefits by decile groups of ALL households, 2003–04

	Decile groups of all households ranked by equivalised disposable income										All house- holds
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (£ per year)											
Decile points (equivalised £)	9 348	11 667	13 712	15 956	18 444	21 206	24 486	29 555	38 420		
Number of households in the population ('000s)	2 464	2 469	2 465	2 468	2 465	2 469	2 468	2 466	2 467	2 468	24 670
Original income											
Wages and salaries	1 340	3 110	5 382	9 368	13 884	18 617	22 556	29 741	36 014	58 843	19 885
Imputed income from benefits in kind	8	-	26	30	97	144	278	432	716	1 573	330
Self-employment income	439	578	695	1 268	1 018	1 346	2 232	2 522	4 326	12 745	2 717
Occupational pensions, annuities	401	890	1 250	1 871	2 216	2 623	2 520	3 021	2 962	3 515	2 127
Investment income	256	233	240	381	480	563	612	917	1 452	3 572	871
Other income	141	99	113	187	219	221	269	161	226	360	200
Total	2 586	4 910	7 706	13 105	17 915	23 514	28 467	36 794	45 695	80 608	26 130
Direct benefits in cash											
Contributory											
Retirement pension	1 807	2 754	2 838	2 422	2 322	1 758	1 537	1 174	925	553	1 809
Job seeker's allowance (Contribution based)	58	40	11	14	15	6	4	3	5	4	16
Incapacity benefit	337	554	375	284	179	209	163	162	36	25	232
Widows' benefits	32	28	36	56	52	54	22	28	19	3	33
Statutory Maternity Pay/Allowance	1	3	1	1	2	7	17	15	13	44	10
Non-contributory											
Income support ¹	914	1 075	728	471	345	190	174	25	39	6	397
Child benefit	404	397	363	452	425	402	367	354	276	229	367
Housing benefit	714	875	920	592	474	246	223	64	74	13	420
Job seeker's allowance (Income based)	173	86	46	8	31	2	15	0	-	-	36
Invalid care allowance	34	43	116	74	36	51	18	22	13	3	41
Attendance allowance	8	46	90	71	73	85	63	11	21	-	47
Disability living allowance	149	253	422	437	398	331	295	157	85	42	257
War pensions/War widows' pensions	2	18	6	23	28	34	34	41	43	-	23
Severe disablement allowance	50	34	43	60	37	63	13	1	14	4	32
Industrial injury disablement benefit	5	28	23	33	34	38	15	26	15	3	22
Student support	14	30	15	58	36	40	18	16	35	103	37
Government training schemes	15	8	10	9	12	5	3	3	12	-	8
Tax credits ²	170	319	366	390	278	185	90	68	60	15	194
Other non-contributory benefits	181	173	189	137	139	101	75	72	55	44	117
Total cash benefits	5 067	6 763	6 598	5 591	4 915	3 805	3 147	2 242	1 740	1 091	4 096
Gross income	7 654	11 673	14 304	18 697	22 829	27 319	31 614	39 037	47 436	81 700	30 226
Direct taxes and Employees' NIC											
Income tax	287	455	854	1 548	2 258	3 170	4 190	5 675	7 478	16 287	4 220
less: Tax credits ³	16	96	170	271	232	211	186	167	65	21	144
Employees' NI contributions	92	183	330	610	925	1 301	1 622	2 161	2 616	3 326	1 317
Council tax and Northern Ireland rates ⁴	730	766	746	814	828	862	899	952	1 027	1 142	876
less: Council tax benefit/Rates rebates	278	265	214	139	93	55	48	13	10	7	112
Total	815	1 043	1 545	2 563	3 686	5 066	6 477	8 609	11 046	20 726	6 158
Disposable income	6 839	10 630	12 759	16 134	19 144	22 253	25 137	30 428	36 390	60 973	24 069
Equivalised disposable income	6 706	10 527	12 698	14 818	17 243	19 874	22 824	26 827	33 303	60 042	22 486
Indirect taxes											
Taxes on final goods and services											
VAT	968	1 098	1 133	1 538	1 685	1 989	2 110	2 381	2 758	3 563	1 922
Duty on tobacco	287	339	347	263	325	316	366	266	300	210	302
Duty on beer and cider	54	83	79	100	118	127	142	175	172	143	119
Duty on wines & spirits	76	79	104	121	141	184	140	186	252	250	153
Duty on hydrocarbon oils	212	225	255	366	417	495	525	617	655	730	450
Vehicle excise duty	65	67	76	107	125	140	148	179	186	195	129
Television licences	86	79	85	90	93	98	104	110	109	110	96
Stamp duty on house purchase	44	30	38	68	66	86	107	131	188	395	115
Customs duties	16	17	18	22	23	27	28	31	36	44	26
Betting taxes	20	23	27	32	52	40	61	35	36	25	35
Insurance premium tax	23	23	26	33	38	46	52	60	65	85	45
Air passenger duty	11	21	6	10	15	15	25	29	37	53	22
Camelot National Lottery Fund	33	45	48	48	64	56	59	65	62	35	52
Other	8	13	7	21	29	12	31	25	23	19	19
Intermediate taxes											
Commercial and industrial rates	153	161	166	205	222	254	265	296	339	419	248
Employers' NI contributions	255	268	277	341	371	424	442	493	566	699	414
Duty on hydrocarbon oils	103	108	112	138	150	171	179	199	229	283	167
Vehicle excise duty	21	22	23	29	31	35	37	41	47	58	35
Other	137	144	149	184	200	229	238	266	305	377	223
Total indirect taxes	2 572	2 847	2 976	3 716	4 166	4 746	5 058	5 587	6 367	7 692	4 573
Post-tax income	4 267	7 783	9 783	12 418	14 978	17 506	20 079	24 841	30 023	53 281	19 496
Benefits in kind											
Education	2 612	1 908	1 566	2 113	1 995	1 775	1 605	1 477	1 254	822	1 713
National health service	3 037	3 430	3 351	3 160	3 120	2 874	2 697	2 520	2 234	2 074	2 850
Housing subsidy	80	89	83	67	49	38	27	15	5	0	45
Rail travel subsidy	25	13	15	24	23	39	43	56	78	106	42
Bus travel subsidy	57	61	55	62	53	58	46	50	53	41	54
School meals and welfare milk	80	60	39	28	14	9	9	4	4	1	25
Total	5 890	5 559	5 109	5 455	5 254	4 794	4 428	4 122	3 628	3 044	4 728
Final income	10 157	13 342	14 892	17 873	20 232	22 300	24 507	28 963	33 651	56 326	24 224

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 14A (Appendix 1)

Average incomes, taxes and benefits by quintile groups of ALL households, 2003–04

	Quintile groups of all households ranked by equivalised disposable income					All house- holds
	Bottom	2nd	3rd	4th	Top	
Average per household (£ per year)						
Quintile points (equivalised £)	11 667	15 956	21 206	29 555		
Number of households in the population ('000s)	4 933	4 933	4 934	4 934	4 935	24 670
Original income						
Wages and salaries	2 225	7 375	16 250	26 148	47 428	19 885
Imputed income from benefits in kind	4	28	121	355	1 144	330
Self-employment income	509	982	1 182	2 377	8 535	2 717
Occupational pensions, annuities	645	1 560	2 420	2 770	3 239	2 127
Investment income	245	310	521	764	2 512	871
Other income	120	150	220	215	293	200
Total	3 748	10 406	20 714	32 631	63 152	26 130
Direct benefits in cash						
Contributory						
Retirement pension	2 280	2 630	2 040	1 355	739	1 809
Job seeker's allowance (Contribution based)	49	12	10	3	4	16
Incapacity benefit	445	330	194	163	30	232
Widows' benefits	30	46	53	25	11	33
Statutory Maternity Pay/Allowance	2	1	4	16	29	10
Non-contributory						
Income support ¹	994	599	268	100	22	397
Child benefit	400	408	413	361	252	367
Housing benefit	795	756	360	144	44	420
Job seeker's allowance (Income based)	130	27	17	8	-	36
Invalid care allowance	39	95	43	20	8	41
Attendance allowance	27	81	79	37	11	47
Disability living allowance	201	430	364	226	64	257
War pensions/War widows' pensions	10	14	31	37	21	23
Severe disablement allowance	42	51	50	7	9	32
Industrial injury disablement benefit	17	28	36	21	9	22
Student support	22	37	38	17	69	37
Government training schemes	12	9	9	3	6	8
Tax credits ²	244	378	231	79	37	194
Other non-contributory benefits	177	163	120	74	50	117
Total cash benefits	5 915	6 095	4 360	2 695	1 416	4 096
Gross income	9 663	16 501	25 074	35 325	64 568	30 226
Direct taxes and Employees' NIC						
Income tax	371	1 201	2 714	4 932	11 882	4 220
less: Tax credits ³	56	221	221	176	43	144
Employees' NI contributions	138	470	1 113	1 892	2 971	1 317
Council tax and Northern Ireland rates ⁴	748	780	845	925	1 085	876
less: Council tax benefit/Rates rebates	271	177	74	30	9	112
Total	929	2 054	4 376	7 543	15 886	6 158
Disposable income	8 734	14 447	20 698	27 782	48 682	24 069
Equivalised disposable income	8 617	13 758	18 559	24 825	46 672	22 486
Indirect taxes						
Taxes on final goods and services						
VAT	1 033	1 336	1 837	2 246	3 160	1 922
Duty on tobacco	313	305	321	316	255	302
Duty on beer and cider	69	90	122	158	158	119
Duty on wines & spirits	77	112	163	163	251	153
Duty on hydrocarbon oils	218	311	456	571	693	450
Vehicle excise duty	66	92	132	163	191	129
Television licences	83	87	96	107	109	96
Stamp duty on house purchase	37	53	76	119	292	115
Customs duties	17	20	25	30	40	26
Betting taxes	22	30	46	48	31	35
Insurance premium tax	23	30	42	56	75	45
Air passenger duty	16	8	15	27	45	22
Camelot National Lottery Fund	39	48	60	62	49	52
Other	11	14	21	28	21	19
Intermediate taxes						
Commercial and industrial rates	157	185	238	280	379	248
Employers' NI contributions	261	309	398	468	633	414
Duty on hydrocarbon oils	106	125	161	189	256	167
Vehicle excise duty	22	26	33	39	53	35
Other	141	167	214	252	341	223
Total indirect taxes	2 710	3 346	4 456	5 322	7 030	4 573
Post-tax income	6 025	11 101	16 242	22 460	41 652	19 496
Benefits in kind						
Education	2 260	1 840	1 885	1 541	1 038	1 713
National health service	3 233	3 256	2 997	2 609	2 154	2 850
Housing subsidy	84	75	44	21	3	45
Rail travel subsidy	19	19	31	49	92	42
Bus travel subsidy	59	59	55	48	47	54
School meals and welfare milk	70	34	11	7	2	25
Total	5 725	5 282	5 024	4 275	3 336	4 728
Final income	11 749	16 383	21 266	26 735	44 988	24 224

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 15 (Appendix 1)

Household characteristics of decile groups of ALL households, 2003–04

	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	2.2	2.4	2.5	2.5	2.4	2.5	2.4	2.2	2.4
Adults	1.6	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.0	1.8	1.8
Men	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	0.9	0.9
Women	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0
Children	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.5
Economically active people	0.4	0.5	0.7	1.0	1.2	1.4	1.5	1.7	1.7	1.6	1.2
Retired people	0.5	0.7	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.1	0.4
People in full-time education	0.69	0.55	0.47	0.62	0.59	0.54	0.48	0.46	0.39	0.30	0.51
In state primary schools	0.28	0.27	0.27	0.30	0.30	0.27	0.23	0.23	0.18	0.15	0.25
In state secondary schools	0.19	0.19	0.13	0.20	0.20	0.19	0.18	0.14	0.11	0.06	0.16
In further and higher education	0.20	0.08	0.06	0.10	0.08	0.07	0.05	0.06	0.07	0.04	0.08
In other educational establishments	0.02	0.01	0.01	0.02	0.01	0.01	0.03	0.03	0.04	0.05	0.02
Composition (percentages)											
Household type											
Retired											
1 adult	21	22	26	19	15	11	12	5	4	4	14
1 adult men	4	4	7	6	4	3	4	2	2	1	4
1 adult women	17	18	19	13	10	8	8	3	2	2	10
2 or more adults	15	22	19	17	16	12	8	7	5	3	12
Non-retired											
1 adult	16	13	11	11	11	13	13	15	17	25	15
1 adult men	9	8	7	6	6	6	7	8	12	16	9
1 adult women	7	5	4	5	5	7	6	7	5	9	6
2 adults	13	11	11	13	17	20	24	30	38	40	22
3 or more adults	4	4	5	5	7	11	11	13	12	8	8
1 adult with children	12	11	7	7	6	5	4	2	1	1	6
2 adults with 1 child	6	4	4	6	8	8	9	10	9	9	7
2 adults with 2 children	5	5	7	11	11	12	12	11	10	7	9
2 adults with 3 or more children	4	5	5	5	3	3	3	3	2	3	3
3 or more adults with children	3	3	3	7	6	5	5	5	3	3	4
Household tenure											
Rented											
Local authority rented	23	24	26	17	14	8	6	3	1	0	12
Housing association or RSL	10	14	14	9	7	6	5	2	1	0	7
Other rented unfurnished	4	4	6	6	6	3	4	3	5	6	5
Rented furnished	9	4	3	4	5	6	4	5	5	5	5
Rent free	1	2	1	2	2	2	2	1	1	1	1
Owner occupied											
With mortgage	14	15	18	33	37	44	54	59	62	62	40
Rental purchase	0	0	0	-	1	0	0	0	0	0	0
Owned outright	38	36	31	30	30	31	26	26	25	26	30
Age of chief economic supporter											
Under 25	9	3	4	3	4	3	3	2	3	2	4
Over 24 and under 35	13	14	11	11	13	15	17	18	21	23	16
Over 34 and under 45	17	16	16	21	21	22	23	24	24	29	21
Over 44 and under 55	12	10	12	16	17	19	20	24	26	24	18
Over 54 and under 65	17	15	15	13	14	17	18	17	18	15	16
Over 64 and under 75	13	17	21	20	17	13	12	10	5	6	13
Over 74	20	25	22	16	15	11	8	5	3	2	13
Employment status of chief economic supporter											
Self-employed	6	5	5	7	5	5	7	8	11	14	7
Full-time employee	5	12	20	33	48	55	62	69	72	74	45
Part-time employee	9	9	10	10	9	8	6	7	6	4	8
Unemployed	7	4	2	1	1	1	0	0	1	1	2
Unoccupied and under minimum NI age	39	26	18	13	8	6	4	3	2	2	12
Retired/unoccupied over minimum NI age	34	43	44	36	30	24	20	12	8	6	26
Other	0	0	-	-	-	-	0	-	-	-	0

Table 15A (Appendix 1)

Household characteristics of quintile groups of ALL households, 2003–04

	Quintile groups of all households ranked by equivalised disposable income					All households
	Bottom	2nd	3rd	4th	Top	
Average per household (number)						
People	2.2	2.3	2.5	2.5	2.3	2.4
Adults	1.6	1.7	1.9	2.0	1.9	1.8
Men	0.7	0.8	0.9	1.0	1.0	0.9
Women	0.9	0.9	1.0	1.0	0.9	1.0
Children	0.6	0.6	0.6	0.5	0.4	0.5
Economically active people	0.5	0.8	1.3	1.6	1.7	1.2
Retired people	0.6	0.6	0.5	0.3	0.2	0.4
People in full-time education	0.62	0.54	0.56	0.47	0.35	0.51
In state primary schools	0.27	0.28	0.28	0.23	0.17	0.25
In state secondary schools	0.19	0.16	0.19	0.16	0.09	0.16
In further and higher education	0.14	0.08	0.08	0.05	0.05	0.08
In other educational establishments	0.02	0.02	0.01	0.03	0.04	0.02
Composition (percentages)						
Household type						
Retired						
1 adult	21	23	13	8	4	14
1 adult men	4	7	4	3	2	4
1 adult women	17	16	9	6	2	10
2 or more adults	19	18	14	8	4	12
Non-retired						
1 adult	15	11	12	14	21	15
1 adult men	9	6	6	8	14	9
1 adult women	6	5	6	6	7	6
2 adults	12	12	19	27	39	22
3 or more adults	4	5	9	12	10	8
1 adult with children	12	7	5	3	1	6
2 adults with 1 child	5	5	8	9	9	7
2 adults with 2 children	5	9	12	11	8	9
2 adults with 3 or more children	4	5	3	3	2	3
3 or more adults with children	3	5	5	5	3	4
Household tenure						
Rented						
Local authority rented	24	22	11	4	1	12
Housing association or RSL	12	11	6	4	1	7
Other rented unfurnished	4	6	4	4	5	5
Rented furnished	7	4	5	5	5	5
Rent free	1	1	2	1	1	1
Owner occupied	52	56	71	83	87	70
With mortgage	15	26	40	56	62	40
Rental purchase	0	0	0	0	0	0
Owned outright	37	31	30	26	25	30
Age of chief economic supporter						
Under 25	6	3	4	3	2	4
Over 24 and under 35	13	11	14	17	22	16
Over 34 and under 45	17	18	22	23	26	21
Over 44 and under 55	11	14	18	22	25	18
Over 54 and under 65	16	14	15	17	17	16
Over 64 and under 75	15	20	15	11	5	13
Over 74	22	19	13	7	3	13
Employment status of chief economic supporter						
Self-employed	6	6	5	8	12	7
Full-time employee	9	27	51	66	73	45
Part-time employee	9	10	8	7	5	8
Unemployed	6	2	1	0	1	2
Unoccupied and under minimum NI age	33	15	7	3	2	12
Retired/unoccupied over minimum NI age	38	40	27	16	7	26
Other	0	-	-	0	-	0

Table 16 (Appendix 1)

Average incomes, taxes and benefits by decile groups of NON-RETIRED households, 2003–04

	Decile groups of non-retired households ranked by equivalised disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (£ per year)											
Decile points (equivalised £)	9 743	12 642	15 350	18 099	20 651	23 531	27 116	32 153	41 657		
Number of households in the population ('000s)	1 820	1 818	1 823	1 819	1 821	1 821	1 818	1 822	1 819	1 822	18 204
Original income											
Wages and salaries	2 410	7 007	12 482	18 685	23 041	26 578	31 451	37 259	42 004	66 719	26 764
Imputed income from benefits in kind	11	31	37	98	166	319	461	499	1 013	1 824	446
Self-employment income	715	1 051	1 479	1 776	1 904	2 569	2 359	3 687	4 703	16 425	3 667
Occupational pensions, annuities	206	312	559	594	900	854	1 055	1 473	1 681	1 606	924
Investment income	180	86	177	245	314	329	503	624	1 178	3 309	694
Other income	219	137	204	278	306	268	259	134	210	459	248
Total	3 742	8 624	14 937	21 677	26 630	30 917	36 087	43 676	50 789	90 343	32 742
Direct benefits in cash											
Contributory											
Retirement pension	110	343	450	668	542	452	553	603	345	169	423
Job seeker's allowance (Contribution based)	78	59	9	19	7	6	4	4	1	4	19
Incapacity benefit	602	692	527	250	301	125	237	51	59	8	285
Widows' benefits	52	40	49	71	42	15	22	37	10	2	34
Statutory Maternity Pay/Allowance	4	1	2	-	10	23	17	15	8	60	14
Non-contributory											
Income support ¹	1 361	1 566	712	262	200	171	72	15	34	8	440
Child benefit	647	701	661	638	567	460	417	316	307	236	495
Housing benefit	1 096	1 285	641	350	195	137	76	44	60	18	390
Job seeker's allowance (Income based)	281	70	40	23	20	12	9	-	-	-	45
Invalid care allowance	61	42	177	65	29	23	26	7	14	5	45
Attendance allowance	5	-	4	12	17	21	-	8	10	-	8
Disability living allowance	246	318	566	340	278	190	213	57	72	25	231
War pensions/War widows' pensions	-	2	4	3	-	12	-	2	25	-	5
Severe disablement allowance	83	47	62	36	54	36	1	-	9	6	33
Industrial injury disablement benefit	7	45	28	22	40	5	22	24	20	-	21
Student support	20	56	70	59	41	1	31	24	39	140	48
Government training schemes	27	8	17	18	9	3	6	12	5	-	10
Tax credits ²	292	651	591	465	289	129	75	81	29	12	261
Other non-contributory benefits	106	82	77	67	54	47	41	41	27	33	57
Total cash benefits	5 080	6 008	4 687	3 370	2 693	1 866	1 824	1 340	1 075	724	2 867
Gross income	8 822	14 632	19 624	25 047	29 323	32 783	37 911	45 016	51 863	91 067	35 609
Direct taxes and Employees' NIC											
Income tax	416	920	1 718	2 685	3 524	4 413	5 430	6 963	8 510	18 625	5 320
Less: Tax credits ³	40	223	367	376	301	237	188	124	56	18	193
Employees' NI contributions	151	430	807	1 235	1 598	1 902	2 289	2 735	3 022	3 533	1 770
Council tax and Northern Ireland rates ⁴	697	734	782	813	847	861	919	989	1 020	1 153	881
Less: Council tax benefit/Rates rebates	324	275	147	61	37	26	17	11	5	8	91
Total	900	1 586	2 792	4 296	5 630	6 913	8 433	10 551	12 492	23 285	7 688
Disposable income	7 922	13 045	16 832	20 751	23 692	25 870	29 478	34 465	39 371	67 782	27 921
Equivalised disposable income	6 628	11 253	14 070	16 739	19 350	22 062	25 191	29 646	36 249	65 999	24 719
Indirect taxes											
Taxes on final goods and services											
VAT	1 169	1 381	1 576	1 943	2 183	2 184	2 436	2 635	2 889	3 756	2 215
Duty on tobacco	401	450	399	356	385	372	387	301	268	229	355
Duty on beer and cider	80	101	126	147	145	160	185	183	171	154	145
Duty on wines & spirits	81	102	129	137	194	156	185	213	255	267	172
Duty on hydrocarbon oils	257	311	397	529	555	585	620	670	700	758	538
Vehicle excise duty	69	77	107	141	147	152	168	195	184	196	144
Television licences	107	104	109	108	109	113	117	113	112	112	111
Stamp duty on house purchase	46	33	69	75	90	109	129	156	214	440	136
Customs duties	19	21	23	26	29	29	31	35	37	47	30
Betting taxes	22	23	31	56	48	74	34	35	32	28	38
Insurance premium tax	24	27	32	42	50	50	58	63	65	87	50
Air passenger duty	14	6	7	16	17	22	27	38	33	51	23
Camelot National Lottery Fund	31	47	53	61	65	64	65	72	56	38	55
Other	13	18	17	42	8	27	48	20	21	22	24
Intermediate taxes											
Commercial and industrial rates	182	200	217	246	274	280	294	329	347	447	282
Employers' NI contributions	303	334	362	411	456	467	491	549	580	746	470
Duty on hydrocarbon oils	123	135	146	166	184	189	198	222	234	301	190
Vehicle excise duty	25	28	30	34	38	39	41	46	48	62	39
Other	164	180	195	221	246	251	265	296	312	402	253
Total indirect taxes	3 132	3 582	4 025	4 760	5 223	5 324	5 780	6 169	6 558	8 142	5 270
Post-tax income	4 790	9 463	12 806	15 991	18 469	20 546	23 698	28 296	32 813	59 640	22 651
Benefits in kind											
Education	4 022	3 225	2 962	3 065	2 524	1 905	1 853	1 410	1 273	841	2 308
National health service	2 290	2 488	2 550	2 520	2 489	2 436	2 282	2 224	2 035	1 982	2 330
Housing subsidy	105	125	63	44	38	27	13	10	4	1	43
Rail travel subsidy	28	24	33	28	39	45	54	67	83	127	53
Bus travel subsidy	45	41	39	51	46	45	36	63	40	44	45
School meals and welfare milk	121	96	52	24	14	10	8	3	3	1	33
Total	6 611	5 999	5 699	5 731	5 150	4 469	4 245	3 777	3 439	2 996	4 812
Final income	11 402	15 463	18 506	21 723	23 619	25 015	27 943	32 073	36 253	62 636	27 463

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 16A (Appendix 1)

Average incomes, taxes and benefits by quintile groups of NON-RETIRED households, 2003–04

	Quintile groups of non-retired households ranked by equivalised disposable income					All house- holds
	Bottom	2nd	3rd	4th	Top	
Average per household (£ per year)						
Quintile points (equivalised £)		12 642	18 099	23 531	32 153	
Number of households in the population ('000s)	3 638	3 642	3 642	3 641	3 642	18 204
Original income						
Wages and salaries	4 708	15 584	24 809	34 355	54 361	26 764
Imputed income from benefits in kind	21	68	242	480	1 418	446
Self-employment income	883	1 627	2 236	3 023	10 564	3 667
Occupational pensions, annuities	259	577	877	1 264	1 644	924
Investment income	133	211	321	563	2 244	694
Other income	178	241	287	197	335	248
Total	6 183	18 307	28 773	39 882	70 566	32 742
Direct benefits in cash						
Contributory						
Retirement pension	227	559	497	578	257	423
Job seeker's allowance (Contribution based)	69	14	6	4	2	19
Incapacity benefit	647	389	213	144	34	285
Widows' benefits	46	60	28	30	6	34
Statutory Maternity Pay/Allowance	3	1	17	16	34	14
Non-contributory						
Income support ¹	1 463	487	185	43	21	440
Child benefit	674	650	513	367	271	495
Housing benefit	1 191	495	166	60	39	390
Job seeker's allowance (Income based)	176	31	16	4	-	45
Invalid care allowance	52	121	26	17	9	45
Attendance allowance	3	8	19	4	5	8
Disability living allowance	282	453	234	135	49	231
War pensions/War widows' pensions	1	4	6	1	13	5
Severe disablement allowance	65	49	45	0	8	33
Industrial injury disablement benefit	26	25	22	23	10	21
Student support	38	64	21	27	89	48
Government training schemes	18	17	6	9	2	10
Tax credits ²	471	528	209	78	21	261
Other non-contributory benefits	94	72	51	41	30	57
Total cash benefits	5 544	4 029	2 279	1 582	899	2 867
Gross income	11 727	22 336	31 053	41 463	71 465	35 609
Direct taxes and Employees' NIC						
Income tax	668	2 202	3 968	6 197	13 568	5 320
less: Tax credits ³	131	371	269	156	37	193
Employees' NI contributions	290	1 021	1 750	2 512	3 278	1 770
Council tax and Northern Ireland rates ⁴	715	797	854	954	1 087	881
less: Council tax benefit/Rates rebates	299	104	32	14	6	91
Total	1 243	3 544	6 272	9 492	17 889	7 688
Disposable income	10 484	18 791	24 781	31 971	53 576	27 921
Equivalised disposable income	8 941	15 404	20 706	27 418	51 124	24 719
Indirect taxes						
Taxes on final goods and services						
VAT	1 275	1 760	2 184	2 535	3 322	2 215
Duty on tobacco	426	378	378	344	249	355
Duty on beer and cider	91	137	153	184	162	145
Duty on wines & spirits	92	133	175	199	261	172
Duty on hydrocarbon oils	284	463	570	645	729	538
Vehicle excise duty	73	124	150	182	190	144
Television licences	106	109	111	115	112	111
Stamp duty on house purchase	40	72	100	142	327	136
Customs duties	20	24	29	33	42	30
Betting taxes	23	44	61	35	30	38
Insurance premium tax	26	37	50	61	76	50
Air passenger duty	10	11	19	32	42	23
Camelot National Lottery Fund	39	57	65	69	47	55
Other	16	29	18	34	21	24
Intermediate taxes						
Commercial and industrial rates	191	232	277	311	397	282
Employers' NI contributions	319	386	462	520	663	470
Duty on hydrocarbon oils	129	156	186	210	268	190
Vehicle excise duty	27	32	39	43	55	39
Other	172	208	249	280	357	253
Total indirect taxes	3 357	4 393	5 274	5 974	7 350	5 270
Post-tax income	7 127	14 399	19 508	25 997	46 227	22 651
Benefits in kind						
Education	3 624	3 013	2 214	1 632	1 057	2 308
National health service	2 389	2 535	2 462	2 253	2 009	2 330
Housing subsidy	115	53	32	12	3	43
Rail travel subsidy	26	30	42	61	105	53
Bus travel subsidy	43	45	45	49	42	45
School meals and welfare milk	109	38	12	6	2	33
Total	6 305	5 715	4 809	4 011	3 218	4 812
Final income	13 432	20 114	24 317	30 008	49 444	27 463

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 17 (Appendix 1)

Household characteristics of decile groups of NON-RETIRED households, 2003–04

	Decile groups of non-retired households ranked by equivalised disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (number)											
People	2.7	2.8	2.9	2.9	2.9	2.7	2.6	2.6	2.4	2.2	2.7
Adults	1.8	1.8	1.9	2.0	2.1	2.0	2.0	2.1	1.9	1.8	1.9
Men	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0
Women	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0
Children	1.0	1.0	0.9	0.9	0.8	0.7	0.6	0.4	0.4	0.4	0.7
Economically active people	0.7	1.0	1.3	1.7	1.8	1.8	1.8	2.0	1.8	1.7	1.6
Retired people	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
People in full-time education	1.07	0.96	0.87	0.90	0.76	0.58	0.57	0.45	0.41	0.32	0.69
In state primary schools	0.44	0.51	0.45	0.41	0.41	0.27	0.28	0.23	0.19	0.15	0.33
In state secondary schools	0.30	0.30	0.26	0.32	0.24	0.22	0.19	0.11	0.12	0.06	0.21
In further and higher education	0.28	0.14	0.13	0.15	0.09	0.05	0.08	0.07	0.06	0.04	0.11
In other educational establishments	0.04	0.01	0.03	0.02	0.02	0.03	0.02	0.04	0.04	0.06	0.03
Composition (percentages)											
Household type											
Non-retired											
1 adult	24	22	21	16	15	17	16	16	22	28	20
1 adult men	14	14	11	9	7	9	10	9	14	19	12
1 adult women	11	8	10	6	9	9	6	7	8	9	8
2 adults	20	20	20	23	24	30	35	39	40	44	29
3 or more adults	7	7	9	9	14	13	13	17	11	7	11
1 adult with children	19	19	11	9	6	6	3	2	2	1	8
2 adults with 1 child	8	8	7	13	11	11	11	10	11	8	10
2 adults with 2 children	10	10	17	16	18	13	14	10	11	7	12
2 adults with 3 or more children	7	9	8	5	4	3	3	2	2	3	5
3 or more adults with children	6	6	7	10	8	7	5	5	3	3	6
Household tenure											
Rented	63	64	42	32	25	22	16	14	13	14	30
Local authority rented	32	30	16	13	8	6	3	2	1	0	11
Housing association or RSL	12	20	10	6	5	5	2	1	1	0	6
Other rented unfurnished	5	8	7	7	4	4	5	3	5	7	5
Rented furnished	13	6	7	5	7	6	5	7	5	5	7
Rent free	2	0	1	2	2	2	1	1	1	1	1
Owner occupied	37	36	58	68	75	78	84	86	87	86	70
With mortgage	21	23	42	50	55	61	67	67	68	65	52
Rental purchase	1	-	0	1	0	1	0	-	0	-	0
Owned outright	15	13	16	17	20	16	16	19	19	21	17
Age of chief economic supporter											
Under 25	13	7	6	4	5	5	3	3	2	2	5
Over 24 and under 35	21	23	19	18	18	20	22	20	23	25	21
Over 34 and under 45	26	30	29	33	29	28	29	23	29	30	29
Over 44 and under 55	19	17	23	25	23	25	24	31	27	26	24
Over 54 and under 65	19	19	17	13	18	19	15	19	17	15	17
Over 64 and under 75	1	2	5	4	4	2	4	3	2	2	3
Over 74	1	2	1	3	2	1	1	1	0	-	1
Employment status of chief economic supporter											
Self-employed	9	9	9	9	7	9	8	10	11	17	10
Full-time employee	9	27	48	66	68	77	79	77	82	77	61
Part-time employee	14	17	15	14	11	8	8	9	5	4	11
Unemployed	11	6	3	1	1	1	0	0	1	1	3
Unoccupied and under minimum NI age	55	37	22	7	7	3	3	1	1	1	14
Retired/unoccupied over minimum NI age	1	3	3	3	4	2	3	2	1	0	2
Other	0	0	-	-	-	0	-	-	-	-	0

Table 17A (Appendix 1)

Household characteristics of quintile groups of NON-RETIRED households, 2003–04

	Quintile groups of non-retired households ranked by equivalised disposable income					All households
	Bottom	2nd	3rd	4th	Top	
Average per household (number)						
People	2.8	2.9	2.8	2.6	2.3	2.7
Adults	1.8	2.0	2.0	2.1	1.9	1.9
Men	0.8	0.9	1.0	1.1	1.0	1.0
Women	0.9	1.0	1.0	1.0	0.9	1.0
Children	1.0	0.9	0.7	0.5	0.4	0.7
Economically active people	0.9	1.5	1.8	1.9	1.8	1.6
Retired people	0.1	0.1	0.1	0.1	0.1	0.1
People in full-time education	1.01	0.88	0.67	0.51	0.36	0.69
In state primary schools	0.48	0.43	0.34	0.25	0.17	0.33
In state secondary schools	0.30	0.29	0.23	0.15	0.09	0.21
In further and higher education	0.21	0.14	0.07	0.07	0.05	0.11
In other educational establishments	0.03	0.02	0.03	0.03	0.05	0.03
Composition (percentages)						
Household type						
Non-retired						
1 adult	23	18	16	16	25	20
1 adult men	14	10	8	10	16	12
1 adult women	9	8	9	7	8	8
2 adults	20	22	27	37	42	29
3 or more adults	7	9	13	15	9	11
1 adult with children	19	10	6	2	1	8
2 adults with 1 child	8	10	11	10	9	10
2 adults with 2 children	10	16	15	12	9	12
2 adults with 3 or more children	8	6	4	3	2	5
3 or more adults with children	6	9	7	5	3	6
Household tenure						
Rented	64	37	24	15	13	30
Local authority rented	31	15	7	2	1	11
Housing association or RSL	16	8	5	2	0	6
Other rented unfurnished	6	7	4	4	6	5
Rented furnished	10	6	7	6	5	7
Rent free	1	2	2	1	1	1
Owner occupied	36	63	76	85	87	70
With mortgage	22	46	58	67	67	52
Rental purchase	0	0	1	0	0	0
Owned outright	14	17	18	18	20	17
Age of chief economic supporter						
Under 25	10	5	5	3	2	5
Over 24 and under 35	22	18	19	21	24	21
Over 34 and under 45	28	31	29	26	29	29
Over 44 and under 55	18	24	24	27	26	24
Over 54 and under 65	19	15	18	17	16	17
Over 64 and under 75	1	4	3	4	2	3
Over 74	2	2	2	1	0	1
Employment status of chief economic supporter						
Self-employed	9	9	8	9	14	10
Full-time employee	18	57	73	78	79	61
Part-time employee	16	15	9	8	4	11
Unemployed	8	2	1	0	1	3
Unoccupied and under minimum NI age	46	14	5	2	1	14
Retired/unoccupied over minimum NI age	2	3	3	2	0	2
Other	0	-	0	-	-	0

Table 18 (Appendix 1)

Average incomes, taxes and benefits by decile groups of RETIRED households, 2003–04

	Decile groups of retired households ranked by equivalised disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (£ per year)											
Decile points (equivalised £)	8 777	10 210	11 607	12 899	14 002	15 600	17 667	20 684	24 849		
Number of households in the population ('000s)	646	647	646	646	647	645	647	649	645	648	6 466
Original income											
Wages and salaries	49	102	78	51	284	539	547	934	926	1 694	520
Imputed income from benefits in kind	-	-	-	-	-	-	19	-	-	38	6
Self-employment income	26	-	28	21	38	-	33	37	-	252	43
Occupational pensions, annuities	741	1 158	1 910	2 290	2 346	4 100	5 292	8 030	9 349	19 918	5 513
Investment income	339	297	533	443	437	642	1 031	1 035	1 745	7 161	1 366
Other income	19	29	82	27	84	21	55	101	70	166	65
Total	1 174	1 586	2 630	2 831	3 189	5 302	6 977	10 138	12 089	29 229	7 515
Direct benefits in cash											
Contributory											
Retirement pension	4 394	5 613	6 148	5 988	5 480	5 767	6 217	5 850	6 103	5 543	5 710
Job seeker's allowance (Contribution based)	-	-	13	14	-	-	31	-	-	10	7
Incapacity benefit	38	6	150	27	156	150	65	7	165	67	83
Widows' benefits	19	16	-	-	38	-	34	128	35	27	30
Statutory Maternity Pay/Allowance	-	-	-	-	-	-	-	-	-	-	-
Non-contributory											
Income support ¹	203	253	238	319	408	319	285	424	255	41	275
Child benefit	10	-	18	1	-	7	1	9	9	3	6
Housing benefit	77	97	282	728	1 004	802	830	467	658	81	503
Job seeker's allowance (Income based)	26	30	13	16	-	-	15	-	-	-	10
Invalid care allowance	-	13	51	21	59	3	11	84	55	-	30
Attendance allowance	16	76	79	214	154	220	180	279	280	72	157
Disability living allowance	83	96	180	198	299	495	496	600	649	217	331
War pensions/War widows' pensions	-	41	32	2	-	74	36	73	225	242	73
Severe disablement allowance	2	-	-	14	30	78	41	69	14	27	27
Industrial injury disablement benefit	10	-	14	15	13	43	90	19	29	9	24
Student support	-	-	-	-	-	3	-	42	-	0	4
Government training schemes	-	-	-	0	-	-	-	-	-	-	0
Tax credits ²	11	-	18	-	-	9	3	6	-	-	5
Other non-contributory benefits	280	339	296	319	285	246	336	227	234	275	284
Total cash benefits	5 168	6 581	7 532	7 875	7 927	8 212	8 671	8 284	8 711	6 614	7 557
Gross income	6 342	8 167	10 162	10 706	11 116	13 514	15 647	18 421	20 800	35 843	15 072
Direct taxes and Employees' NIC											
Income tax	77	111	229	316	294	598	886	1 375	2 009	5 332	1 123
less: Tax credits ³	2	3	3	2	6	4	2	3	7	11	4
Employees' NI contributions	21	5	4	0	7	22	33	51	59	194	40
Council tax and Northern Ireland rates ⁴	796	789	836	778	732	803	879	891	933	1 188	862
less: Council tax benefit/Rates rebates	179	216	199	218	258	187	169	132	138	17	171
Total	712	687	867	873	770	1 231	1 628	2 181	2 856	6 687	1 849
Disposable income	5 631	7 480	9 295	9 833	10 346	12 283	14 019	16 240	17 945	29 156	13 223
Equivalised disposable income	7 125	9 479	10 923	12 241	13 408	14 764	16 647	19 112	22 416	35 893	16 201
Indirect taxes											
Taxes on final goods and services											
VAT	733	636	874	770	788	1 091	1 133	1 411	1 287	2 255	1 098
Duty on tobacco	120	110	233	193	150	206	153	182	132	51	153
Duty on beer and cider	25	32	44	43	58	41	53	56	54	55	46
Duty on wines & spirits	66	49	80	92	94	90	117	141	97	180	101
Duty on hydrocarbon oils	159	131	153	137	155	174	182	253	257	402	200
Vehicle excise duty	58	61	68	62	60	79	92	107	107	177	87
Television licences	54	38	52	57	52	62	56	67	62	69	57
Stamp duty on house purchase	42	29	28	27	34	39	57	52	72	189	57
Customs duties	12	10	14	12	13	16	18	19	18	29	16
Betting taxes	16	20	24	28	28	34	32	28	34	25	27
Insurance premium tax	21	18	28	19	19	25	27	36	41	82	31
Air passenger duty	4	2	63	7	7	9	9	17	14	62	20
Camelot National Lottery Fund	37	39	48	49	45	43	47	46	35	25	41
Other	0	0	2	1	9	6	16	2	1	15	5
Intermediate taxes											
Commercial and industrial rates	110	97	132	117	123	150	172	185	174	273	153
Employers' NI contributions	183	162	220	195	206	249	287	308	290	455	256
Duty on hydrocarbon oils	74	65	89	79	83	101	116	124	117	184	103
Vehicle excise duty	15	14	18	16	17	21	24	26	24	38	21
Other	99	87	119	105	111	134	154	166	156	245	138
Total indirect taxes	1 830	1 601	2 291	2 008	2 051	2 570	2 745	3 228	2 973	4 812	2 611
Post-tax income	3 801	5 880	7 004	7 825	8 295	9 713	11 274	13 012	14 971	24 344	10 612
Benefits in kind											
Education	58	-	66	4	35	24	4	78	46	53	37
National health service	4 176	4 926	4 639	4 297	4 233	4 075	4 767	4 210	4 002	3 820	4 315
Housing subsidy	38	38	45	67	82	80	72	47	49	3	52
Rail travel subsidy	20	5	1	0	6	6	8	17	30	24	12
Bus travel subsidy	72	80	91	78	81	76	88	74	75	64	78
School meals and welfare milk	1	-	4	-	-	2	0	-	-	-	1
Total	4 365	5 049	4 846	4 446	4 437	4 263	4 939	4 426	4 202	3 964	4 494
Final income	8 166	10 929	11 850	12 270	12 732	13 976	16 213	17 438	19 173	28 308	15 105

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 18A (Appendix 1)

Average incomes, taxes and benefits by quintile groups of RETIRED households, 2003–04

	Quintile groups of retired households ranked by equivalised disposable income					All house- holds
	Bottom	2nd	3rd	4th	Top	
Average per household (£ per year)						
Quintile points (equivalised £)	10 210	12 899	15 600	20 684		
Number of households in the population ('000s)	1 293	1 291	1 292	1 296	1 294	6 466
Original income						
Wages and salaries	76	64	412	740	1 310	520
Imputed income from benefits in kind	-	-	-	10	19	6
Self-employment income	13	24	19	35	126	43
Occupational pensions, annuities	950	2 100	3 223	6 661	14 634	5 513
Investment income	318	488	540	1 033	4 453	1 366
Other income	24	54	53	78	118	65
Total	1 380	2 731	4 246	8 557	20 659	7 515
Direct benefits in cash						
Contributory						
Retirement pension	5 003	6 068	5 624	6 033	5 823	5 710
Job seeker's allowance (Contribution based)	-	13	-	16	5	7
Incapacity benefit	22	88	153	36	116	83
Widows' benefits	18	-	19	81	31	30
Statutory Maternity Pay/Allowance	-	-	-	-	-	-
Non-contributory						
Income support ¹	228	279	363	355	148	275
Child benefit	5	9	3	5	6	6
Housing benefit	87	505	903	648	369	503
Job seeker's allowance (Income based)	28	14	-	8	-	10
Invalid care allowance	6	36	31	47	28	30
Attendance allowance	46	146	187	229	176	157
Disability living allowance	90	189	397	548	433	331
War pensions/War widows' pensions	21	17	37	54	233	73
Severe disablement allowance	1	7	54	55	20	27
Industrial injury disablement benefit	5	15	28	54	19	24
Student support	-	-	1	21	0	4
Government training schemes	-	0	-	-	-	0
Tax credits ²	6	9	4	4	-	5
Other non-contributory benefits	309	307	265	281	255	284
Total cash benefits	5 874	7 703	8 069	8 477	7 663	7 557
Gross income	7 255	10 434	12 315	17 034	28 322	15 072
Direct taxes and Employees' NIC						
Income tax	94	273	446	1 130	3 671	1 123
less: Tax credits ³	3	3	5	3	9	4
Employees' NI contributions	13	2	14	42	127	40
Council tax and Northern Ireland rates ⁴	793	807	767	885	1 060	862
less: Council tax benefit/Rates rebates	197	209	222	150	78	171
Total	699	870	1 000	1 905	4 771	1 849
Disposable income	6 555	9 564	11 315	15 130	23 550	13 223
Equivalised disposable income	8 302	11 582	14 086	17 880	29 154	16 201
Indirect taxes						
Taxes on final goods and services						
VAT	685	822	940	1 272	1 771	1 098
Duty on tobacco	115	213	178	168	92	153
Duty on beer and cider	29	44	50	54	54	46
Duty on wines & spirits	58	86	92	129	138	101
Duty on hydrocarbon oils	145	145	164	218	330	200
Vehicle excise duty	60	65	70	100	142	87
Television licences	46	54	57	61	66	57
Stamp duty on house purchase	36	28	36	54	130	57
Customs duties	11	13	14	19	24	16
Betting taxes	18	26	31	30	29	27
Insurance premium tax	19	24	22	31	61	31
Air passenger duty	3	35	8	13	38	20
Camelot National Lottery Fund	38	48	44	47	30	41
Other	0	1	7	9	8	5
Intermediate taxes						
Commercial and industrial rates	103	124	136	178	223	153
Employers' NI contributions	173	208	228	297	373	256
Duty on hydrocarbon oils	70	84	92	120	151	103
Vehicle excise duty	14	17	19	25	31	21
Other	93	112	123	160	201	138
Total indirect taxes	1 715	2 150	2 310	2 987	3 893	2 611
Post-tax income	4 840	7 414	9 004	12 143	19 658	10 612
Benefits in kind						
Education	29	35	29	41	49	37
National health service	4 551	4 468	4 154	4 488	3 911	4 315
Housing subsidy	38	56	81	59	26	52
Rail travel subsidy	13	1	6	13	27	12
Bus travel subsidy	76	84	78	81	69	78
School meals and welfare milk	1	2	1	0	-	1
Total	4 707	4 646	4 350	4 682	4 083	4 494
Final income	9 547	12 060	13 354	16 825	23 740	15 105

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 19 (Appendix 1)

Household characteristics of decile groups of RETIRED households, 2003–04

	Decile groups of retired households ranked by equivalised disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (number)											
People	1.5	1.4	1.6	1.5	1.4	1.6	1.6	1.6	1.5	1.5	1.5
Adults	1.4	1.4	1.6	1.5	1.4	1.6	1.6	1.6	1.5	1.5	1.5
Men	0.6	0.5	0.7	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.6
Women	0.9	0.9	0.9	0.9	0.8	0.9	0.9	1.0	0.8	0.8	0.9
Children	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Economically active people	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Retired people	1.3	1.4	1.5	1.4	1.3	1.4	1.5	1.4	1.4	1.4	1.4
People in full-time education	0.02	-	0.02	0.00	0.01	0.01	0.00	0.02	0.01	0.00	0.01
Composition (percentages)											
Household type											
Retired											
1 adult	59	57	43	55	63	51	47	47	57	48	53
1 adult men	12	8	10	15	16	18	16	11	19	22	15
1 adult women	47	49	34	39	47	33	32	36	38	26	38
2 or more adults	41	43	57	45	37	49	53	53	43	52	47
Household tenure											
Rented											
Local authority rented	11	9	17	23	30	23	20	9	11	-	15
Housing association or RSL	5	11	7	11	12	11	11	10	8	2	9
Other rented unfurnished	1	2	1	5	3	4	3	1	3	1	2
Rented furnished	1	-	-	1	1	-	2	1	2	-	1
Rent free	1	1	4	1	3	1	3	2	1	1	2
Owner occupied											
With mortgage	6	6	3	5	4	10	3	5	6	7	6
Rental purchase	-	-	0	-	-	-	-	-	-	-	0
Owned outright	76	71	69	54	47	52	58	71	69	88	65
Age of chief economic supporter											
Under 25	-	-	-	-	-	-	-	-	-	-	-
Over 24 and under 35	1	-	1	-	-	-	-	-	-	-	0
Over 34 and under 45	1	-	-	-	-	-	-	-	1	1	0
Over 44 and under 55	1	-	-	1	1	-	0	2	-	1	1
Over 54 and under 65	14	9	7	13	9	14	7	16	11	19	12
Over 64 and under 75	35	29	43	41	40	47	50	46	48	48	43
Over 74	49	62	49	45	51	39	42	37	40	31	45
Employment status of chief economic supporter											
Self-employed	-	-	-	-	-	-	-	-	-	1	0
Full-time employee	-	-	-	-	-	-	-	1	-	1	0
Part-time employee	-	1	-	-	-	-	1	-	-	-	0
Unemployed	-	-	-	-	-	-	-	-	-	-	-
Unoccupied and under minimum NI age	11	3	5	7	5	8	4	11	7	15	8
Retired/unoccupied over minimum NI age	89	96	95	93	95	92	95	88	93	83	92

Table 19A (Appendix 1)

Household characteristics of quintile groups of RETIRED households, 2003–04

	Quintile groups of retired households ranked by equivalised disposable income					All house- holds
	Bottom	2nd	3rd	4th	Top	
Average per household (number)						
People	1.5	1.5	1.5	1.6	1.5	1.5
Adults	1.4	1.5	1.5	1.6	1.5	1.5
Men	0.5	0.6	0.6	0.7	0.7	0.6
Women	0.9	0.9	0.8	0.9	0.8	0.9
Children	0.0	0.0	0.0	0.0	0.0	0.0
Economically active people	0.0	0.0	0.1	0.1	0.1	0.1
Retired people	1.4	1.5	1.4	1.5	1.4	1.4
People in full-time education	0.01	0.01	0.01	0.01	0.01	0.01
Composition (percentages)						
Household type						
Retired						
1 adult	58	49	57	47	53	53
1 adult men	10	12	17	13	20	15
1 adult women	48	36	40	34	32	38
2 or more adults	42	51	43	53	47	47
Household tenure						
Rented	21	34	44	31	14	29
Local authority rented	10	20	27	15	6	15
Housing association or RSL	8	9	11	11	5	9
Other rented unfurnished	2	3	3	2	2	2
Rented furnished	0	0	0	1	1	1
Rent free	1	3	2	3	1	2
Owner occupied	79	66	56	69	86	71
With mortgage	6	4	7	4	7	6
Rental purchase	-	0	-	-	-	0
Owned outright	73	62	49	64	79	65
Age of chief economic supporter						
Under 25	-	-	-	-	-	-
Over 24 and under 35	0	0	-	-	-	0
Over 34 and under 45	0	-	-	-	1	0
Over 44 and under 55	0	1	0	1	0	1
Over 54 and under 65	11	10	11	11	15	12
Over 64 and under 75	32	42	44	48	48	43
Over 74	56	47	45	40	36	45
Employment status of chief economic supporter						
Self-employed	-	-	-	-	0	0
Full-time employee	-	-	-	0	0	0
Part-time employee	0	-	-	0	-	0
Unemployed	-	-	-	-	-	-
Unoccupied and under minimum NI age	7	6	7	8	11	8
Retired/unoccupied over minimum NI age	93	94	93	92	88	92

Table 20 (Appendix 1)

Average incomes, taxes and benefits by decile groups of NON-RETIRED households without children, 2003–04

	Decile groups of non-retired households without children 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>	10 363	13 690	17 183	20 062	22 934	26 012	30 186	35 240	45 708		
Number of households in the population ('000s)	1 089	1 087	1 092	1 088	1 089	1 092	1 089	1 089	1 089	1 092	10 896
Original income											
Wages and salaries	2 242	6 206	11 437	17 683	21 730	27 113	31 647	35 902	40 421	66 680	26 106
Imputed income from benefits in kind	8	27	15	129	172	247	350	519	858	1 872	420
Self-employment income	667	1 093	1 384	1 369	1 703	1 656	2 457	2 836	3 664	15 082	3 191
Occupational pensions, annuities	289	507	1 017	1 321	1 209	1 458	1 581	2 068	1 993	1 969	1 341
Investment income	256	108	389	317	373	451	592	635	1 341	3 145	761
Other income	128	112	239	141	100	137	121	150	546	234	191
Total	3 592	8 054	14 481	20 960	25 288	31 062	36 749	42 111	48 825	88 981	32 010
Direct benefits in cash											
Contributory											
Retirement pension	312	573	1 092	1 048	729	809	753	785	362	203	667
Job seeker's allowance (Contribution based)	100	24	38	10	9	8	-	1	2	6	20
Incapacity benefit	806	994	545	336	243	323	180	34	39	14	351
Widows' benefits	54	52	98	32	-	32	13	27	5	3	32
Statutory Maternity Pay/Allowance	-	-	1	-	-	-	1	-	-	40	4
Non-contributory											
Income support ¹	397	907	424	256	158	65	30	18	-	13	227
Child benefit	7	8	3	4	7	10	13	3	-	-	5
Housing benefit	813	1 092	478	168	158	52	37	10	-	30	284
Job seeker's allowance (Income based)	197	108	41	13	6	30	1	-	-	-	39
Invalid care allowance	53	141	78	41	20	20	10	11	-	-	38
Attendance allowance	9	-	19	22	31	-	-	30	-	-	11
Disability living allowance	252	628	565	379	211	256	141	48	34	23	254
War pensions/War widows' pensions	-	-	-	5	15	5	-	46	-	-	7
Severe disablement allowance	105	98	73	81	39	16	1	16	-	10	44
Industrial injury disablement benefit	29	52	31	29	31	28	43	28	6	-	28
Student support	45	21	43	38	1	40	-	13	222	-	42
Government training schemes	16	3	13	15	4	0	-	8	-	-	6
Tax credits ²	27	37	28	22	7	56	13	2	25	-	22
Other non-contributory benefits	76	100	69	89	68	50	42	47	19	49	61
Total cash benefits	3 297	4 840	3 638	2 590	1 737	1 798	1 277	1 126	714	391	2 141
Gross income	6 889	12 893	18 120	23 550	27 025	32 860	38 026	43 237	49 538	89 372	34 151
Direct taxes and Employees' NIC											
Income tax	430	808	1 770	2 591	3 395	4 574	5 488	6 486	8 226	18 065	5 183
Less: Tax credits ³	3	12	13	21	15	32	17	11	5	5	14
Employees' NI contributions	147	352	730	1 196	1 518	1 994	2 368	2 740	3 062	3 711	1 782
Council tax and Northern Ireland rates ⁴	667	692	776	787	796	857	917	960	981	1 105	854
Less: Council tax benefit/Rates rebates	260	253	133	55	31	20	5	7	3	10	78
Total	981	1 587	3 129	4 499	5 662	7 373	8 750	10 168	12 261	22 865	7 728
Disposable income	5 908	11 306	14 991	19 051	21 362	25 487	29 276	33 069	37 277	66 507	26 423
<i>Equivalised disposable income</i>	6 362	12 006	15 406	18 582	21 372	24 462	28 093	32 373	39 905	71 529	27 009
Indirect taxes											
Taxes on final goods and services											
VAT	987	1 181	1 437	1 672	1 806	2 079	2 194	2 482	2 619	3 590	2 005
Duty on tobacco	309	480	333	378	407	428	291	351	258	287	352
Duty on beer and cider	108	122	142	147	157	212	193	185	152	176	159
Duty on wines & spirits	92	119	125	168	174	196	213	242	257	301	189
Duty on hydrocarbon oils	244	261	365	458	529	562	599	605	651	728	500
Vehicle excise duty	70	67	107	124	136	152	180	174	167	189	137
Television licences	99	99	103	105	106	121	110	112	113	111	108
Stamp duty on house purchase	45	28	66	57	77	93	117	154	215	423	128
Customs duties	17	18	21	23	26	27	30	32	34	44	27
Betting taxes	23	29	34	48	48	43	41	37	28	28	36
Insurance premium tax	23	22	31	41	41	51	61	57	65	83	48
Air passenger duty	22	3	6	15	11	24	30	33	34	49	23
Camelot National Lottery Fund	35	47	54	76	59	72	86	73	46	38	59
Other	7	1	20	9	33	16	16	36	14	16	17
Intermediate taxes											
Commercial and industrial rates	159	172	194	215	243	253	281	304	319	413	255
Employers' NI contributions	265	287	325	358	405	423	469	508	533	689	426
Duty on hydrocarbon oils	107	116	131	145	164	171	189	205	215	278	172
Vehicle excise duty	22	24	27	30	34	35	39	42	44	58	36
Other	143	154	175	193	218	228	253	274	287	371	230
Total indirect taxes	2 775	3 230	3 695	4 263	4 673	5 185	5 392	5 908	6 051	7 872	4 904
Post-tax income	3 133	8 076	11 295	14 788	16 689	20 302	23 884	27 161	31 227	58 635	21 519
Benefits in kind											
Education	1 827	461	420	263	245	185	172	290	266	-	413
National health service	1 556	1 871	1 921	2 031	1 847	1 875	1 853	1 812	1 460	1 469	1 769
Housing subsidy	84	96	54	39	38	16	12	3	5	1	35
Rail travel subsidy	34	33	51	24	60	65	37	74	100	122	60
Bus travel subsidy	29	36	44	38	45	39	49	53	44	43	42
School meals and welfare milk	-	-	-	-	-	-	-	-	-	-	-
Total	3 531	2 497	2 491	2 395	2 234	2 180	2 123	2 232	1 875	1 635	2 319
Final income	6 664	10 573	13 786	17 183	18 924	22 482	26 007	29 393	33 101	60 271	23 838

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 21 (Appendix 1)

Average incomes, taxes and benefits by decile groups of NON-RETIRED households WITH CHILDREN, 2003–04

	Decile groups of non-retired households with children ranked by equivalised disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (£ per year)											
Decile points (equivalised £)	9 286	11 693	13 974	15 800	18 022	20 326	23 097	26 807	34 383		
Number of households in the population ('000s)	730	727	734	730	730	733	731	726	732	736	7 308
Original income											
Wages and salaries	2 407	6 419	13 070	17 936	23 579	27 651	30 843	37 635	45 275	72 620	27 743
Imputed income from benefits in kind	15	-	48	80	144	249	307	853	1 080	2 071	485
Self-employment income	664	1 424	1 160	2 171	1 796	2 297	3 854	3 430	6 426	20 536	4 376
Occupational pensions, annuities	110	181	174	307	176	233	486	319	321	712	302
Investment income	77	66	56	124	164	205	256	459	797	3 751	596
Other income	285	183	162	250	469	473	537	364	262	332	332
Total	3 557	8 273	14 670	20 869	26 327	31 109	36 284	43 060	54 160	100 022	33 833
Direct benefits in cash											
Contributory											
Retirement pension	7	64	78	222	23	27	94	67	28	-	61
Job seeker's allowance (Contribution based)	75	80	2	4	6	3	2	-	9	-	18
Incapacity benefit	522	409	291	185	105	149	150	16	31	12	187
Widows' benefits	47	18	50	86	24	58	36	-	59	-	38
Statutory Maternity Pay/Allowance	2	11	3	1	-	25	34	64	52	95	29
Non-contributory											
Income support ¹	2 306	2 538	1 267	653	228	244	194	70	-	77	758
Child benefit	1 298	1 386	1 355	1 263	1 242	1 245	1 115	1 143	1 086	1 117	1 225
Housing benefit	1 404	1 510	980	505	292	355	103	92	96	149	549
Job seeker's allowance (Income based)	278	168	56	1	6	36	-	-	-	-	54
Invalid care allowance	54	51	142	130	70	5	41	21	27	21	56
Attendance allowance	-	-	-	-	8	-	22	-	-	-	3
Disability living allowance	212	225	316	328	189	215	227	84	61	101	196
War pensions/War widows' pensions	-	-	17	-	-	-	-	-	-	-	2
Severe disablement allowance	51	14	30	47	-	28	8	-	-	-	18
Industrial injury disablement benefit	9	11	4	42	19	7	14	-	11	-	12
Student support	28	44	32	106	137	47	2	1	60	110	57
Government training schemes	34	18	29	5	35	4	1	3	40	-	17
Tax credits ²	563	1 020	1 361	1 047	834	647	340	99	206	66	618
Other non-contributory benefits	163	59	70	62	41	43	26	24	22	11	52
Total cash benefits	7 057	7 627	6 081	4 687	3 261	3 136	2 409	1 685	1 786	1 760	3 949
Gross income	10 614	15 900	20 751	25 556	29 588	34 245	38 693	44 745	55 946	101 782	37 782
Direct taxes and Employees' NIC											
Income tax	360	864	1 728	2 440	3 272	4 253	5 376	6 617	9 507	20 834	5 525
less: Tax credits ³	51	315	680	719	688	622	559	458	393	121	461
Employees' NI contributions	138	415	841	1 192	1 589	1 944	2 234	2 652	3 067	3 458	1 753
Council tax and Northern Ireland rates ⁴	739	754	800	824	867	882	949	1 002	1 098	1 314	923
less: Council tax benefit/Rates rebates	400	308	175	94	38	36	23	16	13	13	111
Total	787	1 410	2 514	3 644	5 002	6 421	7 977	9 798	13 265	25 471	7 629
Disposable income	9 827	14 489	18 238	21 912	24 587	27 824	30 717	34 947	42 681	76 311	30 153
Equivalised disposable income	7 129	10 434	12 842	14 887	16 918	19 158	21 653	24 590	30 060	55 372	21 304
Indirect taxes											
Taxes on final goods and services											
VAT	1 268	1 484	1 796	2 098	2 346	2 673	2 617	3 029	3 406	4 574	2 529
Duty on tobacco	492	446	525	318	422	324	311	379	225	143	359
Duty on beer and cider	33	85	103	129	152	149	140	156	157	138	124
Duty on wines & spirits	63	69	132	131	160	182	170	149	186	225	147
Duty on hydrocarbon oils	241	340	427	544	622	676	656	747	807	891	595
Vehicle excise duty	64	77	115	143	160	167	175	193	215	235	154
Television licences	114	113	116	112	114	112	111	123	116	113	115
Stamp duty on house purchase	46	37	62	94	82	123	119	198	226	503	149
Customs duties	21	23	26	29	31	35	35	37	44	58	34
Betting taxes	20	21	23	27	93	41	25	118	27	27	42
Insurance premium tax	24	25	40	44	47	58	62	65	72	97	53
Air passenger duty	3	9	5	13	21	20	22	39	48	58	24
Camelot National Lottery Fund	31	38	51	51	60	63	59	59	54	34	50
Other	15	43	18	29	76	9	18	92	20	16	34
Intermediate taxes											
Commercial and industrial rates	198	216	247	271	291	332	330	355	415	554	321
Employers' NI contributions	330	360	411	452	486	554	550	593	692	924	535
Duty on hydrocarbon oils	133	145	166	183	196	224	222	239	280	373	216
Vehicle excise duty	28	30	34	38	41	46	46	49	58	77	45
Other	178	194	222	244	262	299	296	319	373	498	288
Total indirect taxes	3 301	3 755	4 518	4 948	5 662	6 089	5 963	6 942	7 423	9 538	5 814
Post-tax income	6 526	10 735	13 720	16 964	18 924	21 736	24 753	28 005	35 258	66 773	24 339
Benefits in kind											
Education	6 104	6 001	5 366	5 667	5 643	5 233	4 586	4 699	4 305	3 729	5 133
National health service	3 075	3 070	3 356	3 117	2 918	3 089	3 197	3 180	3 068	3 576	3 165
Housing subsidy	132	143	92	61	37	30	35	13	7	1	55
Rail travel subsidy	16	11	18	18	26	29	58	39	89	117	42
Bus travel subsidy	64	47	41	54	50	44	70	26	58	39	49
School meals and welfare milk	258	211	140	79	42	28	33	21	13	6	83
Total	9 649	9 484	9 014	8 996	8 715	8 454	7 979	7 978	7 540	7 468	8 528
Final income	16 175	20 219	22 734	25 960	27 639	30 189	32 732	35 983	42 798	74 241	32 867

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 22 (Appendix 1)

Distribution of households¹ by household type, 2003–04

	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	103	418	522	373	219	183	402
2nd	100	435	535	544	203	114	316
3rd	175	472	648	476	163	110	272
4th	146	318	464	423	150	129	279
5th	104	256	360	402	150	119	270
6th	78	187	265	284	154	165	319
7th	90	202	293	201	180	143	323
8th	55	71	126	170	200	170	370
9th	56	39	95	122	287	126	413
Top	36	61	96	67	392	224	616
All households in population ('000s)	944	2 459	3 403	3 063	2 097	1 483	3 580

	Non-Retired households							All house- holds	
	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		
Decile groups of households ranked by equivalised disposable income									
Number of households ('000s)									
Bottom	311	108	302	137	132	96	82	2 464	
2nd	271	103	270	104	131	112	83	2 469	
3rd	277	135	178	93	179	120	86	2 465	
4th	319	112	173	146	269	117	166	2 468	
5th	418	176	137	199	282	82	140	2 465	
6th	502	276	112	199	307	73	131	2 469	
7th	603	261	97	216	291	68	115	2 468	
8th	733	318	61	235	261	63	130	2 466	
9th	937	284	35	226	237	41	74	2 467	
Top	984	186	19	210	162	62	66	2 468	
All households in population ('000s)	5 356	1 959	1 385	1 765	2 252	834	1 073	24 670	

1. See Appendix 2 for definition of retired households, adults and children.

Table 23 (Appendix 1)

Summary of the effects of taxes and benefits, by household type¹, 2003–04

	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	6 804	3 688	4 552	10 807	19 328	16 127	18 002
<i>plus</i> Cash benefits	6 129	6 568	6 446	8 792	1 758	2 036	1 873
Gross income	12 933	10 256	10 998	19 599	21 085	18 163	19 875
<i>less</i> Direct taxes and employees' NIC	1 652	993	1 175	2 598	4 976	4 153	4 635
Disposable income	11 282	9 263	9 823	17 001	16 110	14 010	15 240
<i>Equivalised disposable income</i>	<i>18 464</i>	<i>15 177</i>	<i>16 089</i>	<i>16 326</i>	<i>26 409</i>	<i>22 968</i>	<i>24 983</i>
<i>less</i> Indirect taxes	2 002	1 486	1 629	3 702	3 283	2 873	3 113
Post-tax income	9 279	7 777	8 194	13 299	12 826	11 137	12 126
<i>plus</i> Benefits in kind	3 357	3 859	3 719	5 354	994	1 172	1 068
Final income	12 637	11 636	11 913	18 653	13 820	12 309	13 194

	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	37 200	43 424	9 173	37 462	38 469	40 188	45 023	26 130
<i>plus</i> Cash benefits	2 058	2 856	7 088	2 240	2 718	4 917	4 540	4 096
Gross income	39 258	46 281	16 261	39 702	41 187	45 105	49 563	30 226
<i>less</i> Direct taxes and employees' NIC	9 142	9 512	1 529	8 584	8 964	9 419	9 737	6 158
Disposable income	30 116	36 769	14 733	31 118	32 223	35 687	39 826	24 069
<i>Equivalised disposable income</i>	<i>29 426</i>	<i>24 101</i>	<i>15 076</i>	<i>25 588</i>	<i>22 121</i>	<i>20 851</i>	<i>20 932</i>	<i>22 486</i>
<i>less</i> Indirect taxes	5 387	6 858	3 047	5 701	6 324	6 806	7 729	4 573
Post-tax income	24 729	29 911	11 685	25 416	25 899	28 880	32 097	19 496
<i>plus</i> Benefits in kind	2 282	4 708	7 740	5 387	8 853	13 709	10 001	4 728
Final income	27 011	34 619	19 425	30 803	34 753	42 589	42 098	24 224

¹ See Appendix 2 for definitions of retired households, adults and children.

Table 24 (Appendix 1)

Average incomes, taxes and benefits by decile groups of all households (ranked by UNADJUSTED disposable income), 2003–04

	Decile groups of all households ranked by unadjusted disposable income										All households
	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	
Average per household (£ per year)											
Decile points (£)	7 422	9 890	12 690	15 794	19 493	23 329	27 860	33 882	44 404		
Number of households in the population ('000s)	2 466	2 465	2 470	2 467	2 466	2 466	2 467	2 465	2 469	2 468	24 670
Original income											
Wages and salaries	621	1 381	3 626	6 330	10 819	17 371	23 190	30 041	39 504	65 973	19 885
Imputed income from benefits in kind	4	5	19	29	58	127	168	460	738	1 698	330
Self-employment income	279	274	301	597	1 055	1 658	2 239	2 614	3 606	14 546	2 717
Occupational pensions, annuities	453	1 134	1 775	2 635	2 806	2 280	2 670	2 568	2 186	2 762	2 127
Investment income	266	246	314	540	685	603	726	951	1 182	3 192	871
Other income	86	95	118	161	212	194	256	267	223	385	200
Total	1 709	3 135	6 153	10 293	15 636	22 233	29 249	36 901	47 438	88 557	26 130
Direct benefits in cash											
Contributory											
Retirement pension	2 266	3 089	3 062	2 858	2 203	1 523	1 182	885	629	393	1 809
Job seeker's allowance (Contribution based)	38	13	11	19	30	12	15	7	9	5	16
Incapacity benefit	290	332	345	324	246	218	270	111	135	53	232
Widows' benefits	39	40	62	41	42	22	30	37	7	9	33
Statutory Maternity Pay/Allowance	-	1	3	0	0	6	12	10	22	50	10
Non-contributory											
Income support ¹	395	796	928	680	489	269	121	128	121	39	397
Child benefit	79	151	250	235	413	477	480	530	516	535	367
Housing benefit	612	1 097	865	654	408	194	193	52	61	60	420
Job seeker's allowance (Income based)	94	45	57	54	45	17	8	15	26	0	36
Invalid care allowance	11	17	31	70	88	73	38	36	32	14	41
Attendance allowance	32	69	124	93	30	61	16	19	11	13	47
Disability living allowance	54	245	336	531	440	293	255	129	193	93	257
War pensions/War widows' pensions	1	17	8	40	66	69	2	8	3	12	23
Severe disablement allowance	30	15	56	68	54	42	20	10	11	12	32
Industrial injury disablement benefit	3	16	26	31	48	14	39	21	20	3	22
Student support	2	16	40	20	19	22	27	42	47	131	37
Government training schemes	2	7	1	8	15	5	7	8	6	16	8
Tax credits ²	16	93	179	237	506	407	215	132	135	20	194
Other non-contributory benefits	165	226	192	156	132	73	80	57	46	40	117
Total cash benefits	4 130	6 284	6 578	6 119	5 276	3 798	3 011	2 237	2 031	1 498	4 096
Gross income	5 839	9 418	12 730	16 412	20 911	26 031	32 260	39 138	49 469	90 054	30 226
Direct taxes and Employees' NIC											
Income tax	199	338	696	1 316	2 024	2 972	4 299	5 544	7 506	17 310	4 220
less: Tax credits ³	3	5	25	83	220	316	238	258	215	74	144
Employees' NI contributions	49	75	225	423	736	1 212	1 696	2 153	2 824	3 772	1 317
Council tax and Northern Ireland rates ⁴	675	677	738	800	862	865	924	969	1 035	1 220	876
less: Council tax benefit/Rates rebates	249	275	221	162	95	53	32	18	9	10	112
Total	671	810	1 412	2 294	3 307	4 681	6 650	8 390	11 140	22 219	6 158
Disposable income	5 167	8 608	11 318	14 117	17 604	21 351	25 610	30 748	38 328	67 835	24 069
Indirect taxes											
Taxes on final goods and services											
VAT	705	771	983	1 278	1 631	1 964	2 220	2 590	2 858	4 223	1 922
Duty on tobacco	176	246	257	297	325	332	363	345	405	274	302
Duty on beer and cider	47	51	60	91	101	133	142	166	199	203	119
Duty on wines & spirits	62	64	87	108	135	169	166	193	262	286	153
Duty on hydrocarbon oils	138	150	200	293	416	468	539	635	748	911	450
Vehicle excise duty	49	48	71	92	122	138	156	178	198	236	129
Television licences	70	74	83	89	100	107	111	109	111	111	96
Stamp duty on house purchase	41	22	33	52	81	92	121	139	171	402	115
Customs duties	12	13	16	19	23	26	29	33	38	53	26
Betting taxes	15	22	26	30	32	48	37	38	72	32	35
Insurance premium tax	18	15	24	32	38	43	57	59	69	95	45
Air passenger duty	10	3	22	10	13	13	22	36	27	65	22
Camelot National Lottery Fund	25	33	44	50	60	49	65	67	73	49	52
Other	4	8	3	3	20	20	33	18	47	32	19
Intermediate taxes											
Commercial and industrial rates	115	122	154	180	218	244	274	316	357	499	248
Employers' NI contributions	193	203	256	301	363	408	458	527	596	832	414
Duty on hydrocarbon oils	78	82	104	122	147	165	185	213	241	336	167
Vehicle excise duty	16	17	21	25	30	34	38	44	50	69	35
Other	104	110	138	162	196	220	247	284	321	448	223
Total indirect taxes	1 879	2 055	2 583	3 235	4 051	4 673	5 264	5 989	6 843	9 156	4 573
Post-tax income	3 288	6 553	8 735	10 882	13 553	16 678	20 346	24 759	31 486	58 680	19 496
Benefits in kind											
Education	782	750	1 097	1 192	1 792	2 136	2 021	2 415	2 578	2 364	1 713
National health service	2 632	3 073	3 252	2 902	2 907	2 792	2 725	2 789	2 645	2 780	2 850
Housing subsidy	74	93	85	62	49	33	22	18	12	4	45
Rail travel subsidy	14	13	21	22	24	30	44	49	76	129	42
Bus travel subsidy	44	61	58	49	59	43	53	51	56	63	54
School meals and welfare milk	10	27	58	40	34	27	15	18	13	5	25
Total	3 556	4 017	4 570	4 268	4 865	5 062	4 880	5 341	5 380	5 345	4 728
Final income	6 844	10 570	13 306	15 150	18 418	21 740	25 226	30 099	36 865	64 025	24 224

¹ Including pension credit.² Child tax credit and working tax credit payments which are treated as benefits (see Appendix 2, paragraph 22).³ Child tax credit and working tax credit payments which are treated as negative income tax. Also includes tax relief at source on life assurance premiums.⁴ Council tax and Northern Ireland rates after deducting discounts.

Table 25 (Appendix 1)

Cross-tabulation of households ranked by disposable income, unadjusted and equivalised, 2003–04

(i) Quintile groups		Quintile groups of equivalised disposable income					All house- holds
		Bottom	2nd	3rd	4th	Top	
Number of households in the population ('000s)							
Quintile groups of unadjusted disposable income							
Bottom	3 175	1 702	53	-	-	4 930	
2nd	1 330	1 617	1 229	761	-	4 937	
3rd	402	1 175	1 986	868	502	4 932	
4th	26	409	1 400	2 019	1 079	4 933	
Top	-	31	265	1 286	3 354	4 937	
All households	4 933	4 933	4 934	4 934	4 935	24 670	

(ii) Decile groups		Decile groups of equivalised disposable income									All house- holds
		Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	
Number of households in the population ('000s)											
Decile groups of unadjusted disposable income											
Bottom	1 445	851	169	-	-	-	-	-	-	-	2 466
2nd	598	281	787	746	53	-	-	-	-	-	2 465
3rd	239	782	352	65	576	457	-	-	-	-	2 470
4th	107	202	551	649	60	137	619	142	-	-	2 467
5th	54	230	319	296	815	221	29	357	145	-	2 466
6th	20	98	204	355	258	692	449	34	357	-	2 466
7th	1	22	47	216	409	365	521	566	16	305	2 467
8th	-	4	31	115	200	427	411	520	536	222	2 465
9th	-	-	4	27	94	140	383	588	830	403	2 469
Top	-	-	-	-	-	31	56	259	582	1 539	2 468
All households	2 464	2 469	2 465	2 468	2 465	2 469	2 468	2 466	2 467	2 468	24 670

Table 26 (Appendix 1)

Percentage shares of equivalised total original, gross, disposable and post-tax incomes by quintile groups for ALL households¹, 1981 to 2003–04²

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Original income												
Bottom	3	3	3	3	2	3	2	2	2	2	2	2
2nd	9	8	8	7	7	7	7	7	7	7	7	6
3rd	17	17	17	17	17	16	16	16	16	15	16	15
4th	26	26	26	26	27	26	25	26	26	25	26	26
Top	46	46	47	47	47	49	50	50	49	51	50	50
All households	100	100	100	100	100	100	100	100	100	100	100	100
Gross income												
Bottom	8	9	9	9	8	8	7	7	7	7	7	7
2nd	12	12	12	12	12	11	11	11	11	10	10	11
3rd	17	17	17	17	17	16	16	16	16	16	16	16
4th	23	23	23	23	24	23	23	23	23	23	23	23
Top	39	39	39	39	40	41	43	43	42	44	44	43
All households	100	100	100	100	100	100	100	100	100	100	100	100
Disposable income												
Bottom	9	9	9	10	9	9	8	8	8	7	7	7
2nd	13	13	13	13	13	12	12	11	12	11	11	11
3rd	17	17	17	17	17	17	16	16	17	16	16	16
4th	23	23	23	23	23	23	23	23	23	23	23	23
Top	38	37	38	37	38	40	41	42	41	43	42	42
All households	100	100	100	100	100	100	100	100	100	100	100	100
Post-tax income												
Bottom	9	9	9	9	9	8	8	7	7	6	7	7
2nd	13	13	13	13	13	12	12	11	11	10	11	11
3rd	17	17	17	17	17	16	16	16	16	15	16	16
4th	22	22	22	22	23	22	22	22	23	23	23	23
Top	39	39	39	38	39	41	43	44	43	45	44	44
All households	100	100	100	100	100	100	100	100	100	100	100	100

	1993	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04
Original income												
Bottom	2	2	2	3	2	2	3	2	2	3	3	3
2nd	6	6	6	7	7	7	7	7	7	7	7	7
3rd	15	14	15	15	15	15	15	15	15	14	15	15
4th	25	25	25	25	25	25	25	25	25	24	25	24
Top	52	52	51	50	51	51	52	52	50	52	50	51
All households	100	100	100	100	100	100	100	100	100	100	100	100
Gross income												
Bottom	7	7	7	7	7	7	7	7	6	6	7	7
2nd	11	11	11	11	11	11	11	11	11	11	11	11
3rd	16	16	16	16	16	16	16	16	16	15	16	16
4th	23	23	23	23	23	23	23	23	23	22	23	22
Top	44	44	43	43	44	44	44	44	44	45	43	44
All households	100	100	100	100	100	100	100	100	100	100	100	100
Disposable income												
Bottom	8	8	8	8	8	8	7	7	7	7	8	8
2nd	12	12	12	12	12	12	12	12	12	12	12	12
3rd	16	16	16	17	16	16	16	16	16	16	17	17
4th	23	23	23	23	23	23	23	23	23	22	23	22
Top	42	42	41	40	42	42	42	42	42	43	41	42
All households	100	100	100	100	100	100	100	100	100	100	100	100
Post-tax income												
Bottom	7	7	7	7	7	7	6	6	6	6	6	7
2nd	11	11	11	12	11	11	11	11	11	11	12	12
3rd	16	16	16	16	16	16	16	16	16	15	16	16
4th	22	22	22	23	22	22	22	22	22	22	23	22
Top	44	44	43	43	44	44	45	45	44	46	43	44
All households	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 1996–97 values are based on estimates for the sample grossed up to population totals.

Table 27 (Appendix 1)

Gini coefficients for the distribution of income at each stage of the tax-benefit system and P90/P10 and P75/P25¹ ratios for disposable income for all households, 1981 to 2003–04²

	Gini coefficients (per cent)				Ratios for disposable income	
	Equivalised income				P90/P10	P75/P25
	Original	Gross	Disposable	Post-tax		
1981	46	31	28	31	3.4	2.0
1982	47	31	28	31	3.3	2.0
1983	48	32	28	31	3.3	1.9
1984	49	31	28	30	3.3	2.0
1985	49	32	29	32	3.5	2.1
1986	50	34	31	35	3.7	2.1
1987	51	36	33	36	4.1	2.2
1988	51	37	35	38	4.4	2.4
1989	50	36	34	37	4.5	2.4
1990	52	38	36	40	4.9	2.5
1991	51	37	35	39	4.8	2.5
1992	52	37	34	38	4.6	2.4
1993	53	38	35	38	4.5	2.3
1993/94	54	37	34	38	4.5	2.3
1994/95	53	37	33	37	4.5	2.3
1995/96	52	36	33	37	4.2	2.2
1996/97	53	37	34	38	4.4	2.3
1997/98	53	37	34	38	4.5	2.3
1998/99	53	38	35	39	4.5	2.3
1999/00	53	38	35	40	4.6	2.4
2000/01	51	38	35	39	4.5	2.3
2001/02	53	39	36	40	4.5	2.3
2002/03	51	37	33	37	4.3	2.2
2003/04	52	37	34	38	4.1	2.1

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 to population totals.

APPENDIX 2

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 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 Expenditure and Food Survey (EFS). 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.

Expenditure and Food Survey (EFS)

2. The estimates in this analysis are based mainly on data derived from the EFS, which replaced the Family Expenditure Survey (FES) from 2001–02. The EFS 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 EFS 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 ONS and by the Northern Ireland Statistics and Research Agency. *Family Spending 2003–04*, published on the National Statistics website in June 2005, shows detailed results on expenditure and income from the 2003–04 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 EFS in 2003–04 was 7,000 (about one in every 3,500 households). The response rate was 58 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 analysis 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. The weights have not yet been revised to take account of results from the 2001 Census.

6. The EFS 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 (for example, investment income over the previous 12 months). EFS income does not include proceeds from the sale of assets (for example, 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 used is the household, and not the family, individual or benefit unit. A household is defined in terms of the harmonised definition as used in the Census and nearly all other government household surveys since 1981. This is one person, or a group of persons, who have the accommodation as their only or main residence and (for

a group) share the living accommodation, that is a living or sitting room, or share meals together or have common housekeeping. Up until 1999–2000, the definition was based on the pre-1981 Census definition and required members to share eating and budgeting arrangements as well as shared living accommodation. The definition of a household comprised people who lived at the same address and who shared common catering for at least one meal a day. The effect of the change was fairly small, but not negligible. 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** (that is, 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 where a spouse is absent from the household at the time of interview. The absent spouse may well be working away from home (for example, 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 Council tax and Northern Ireland rates (see paragraph 24 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, that is, 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 charges. The Inland Revenue website 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 EFS. 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 EFS.

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 EFS 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 EFS 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 Council tax and Northern Ireland rates), invalid care allowance, attendance allowance, disability living allowance, war pensions, severe disablement allowance, industrial injury disablement benefits, child tax credit and working tax credit, old persons pension, Christmas bonus for pensioners, government training scheme allowances, educational support (largely student maintenance awards) and winter fuel payments.

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

22. Child tax credit (CTC) and working tax credit (WTC) are more complicated. They are classified as negative income tax, but only to the extent that income tax less tax credits, remains greater than or equal to zero for each family. So for households paying relatively little or no income tax, tax credit payments are regarded either partially or wholly, as cash benefits. As discussed in the article, estimates of tax credit

payments for 2003–04 are thought to under-estimate the true level of payments due to under-reporting in the EFS.

23. 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.

24. Income tax, Council tax and Northern Ireland rates, 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 EFS.

25. Income tax is shown after the deduction of those tax credit payments which are regarded as negative income tax.

26. The figures for Council tax and Northern Ireland rates include Council tax (for households in Great Britain), and domestic rates (for households in Northern Ireland). Council tax is shown after discounts to reduce or remove the personal element of the tax (for example, the discount of 25 per cent for single person households). All Council tax and Northern Ireland rates are shown after the deduction of council tax benefit and rate rebates. This is 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.

27. Up until 2000–01 the figures for Council tax and Northern Ireland rates included charges made by water authorities for water, environmental and sewerage services. From 2001–02 these were treated as charges for a service rather than a tax, so the current figures for local taxes are not strictly comparable with those up to 2000–01.

28. 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 2003–04, there were two types of tax relief obtained in this way: tax credits paid through employers, and life assurance premium relief. Where households are eligible for these reliefs, imputations are made and deducted from recorded income tax payments.

29. 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.

30. Taxes levied on final goods and services are assumed to be fully incident on the consumer, and can be imputed from a household's EFS 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.

31. 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 EFS 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 EFS.

32. 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 EFS) and the probability of a household of that type moving in a given year (estimated from the General Household Survey).

33. 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.

34. 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 analysis, 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, for example, 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.

35. For Tables 3 and 9 of the main analysis, we have constructed a measure of expenditure on goods and services from data from the EFS. 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.

36. 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 lump sum capital payments in line with the exclusion of capital gains and windfalls from income.

37. 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).

38. Education benefit is estimated from information provided by the Department for Education and Skills 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 EFS as receiving each kind of state education (students away from the household are excluded). No benefit is allocated for pupils attending private schools.

39. The value of school meals and other welfare foods is based on their costs to the public authorities.

40. 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. Each individual in the EFS 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.

41. In this analysis, public sector tenants are defined to include the tenants of local authorities, 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 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, rent rebates and allowances or local tax rebates.

42. 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 other services to households living outside the South East, in proportion to households' expenditure on rail fares as recorded in the EFS. 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.

43. In this analysis, 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.

44. We must emphasise that the analysis 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.

45. 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 a life assurance premium, for example, accrues directly to the taxpayer rather than to some other party, for instance, the seller of the policy. 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.

46. 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.

47. 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.

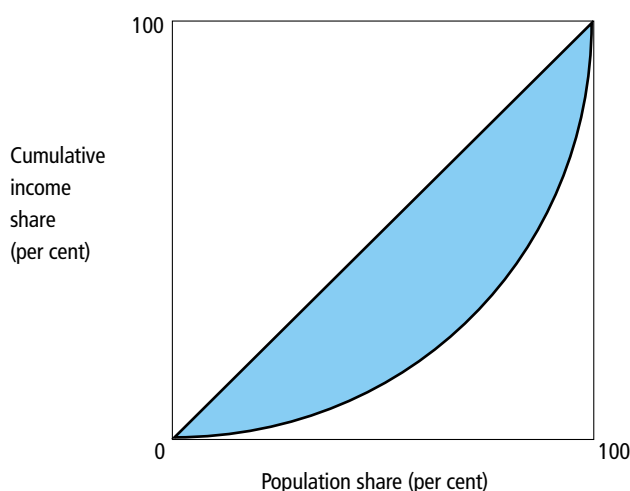
Equivalence scale

48. 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 were based on the assumption that it is possible to estimate equivalence scales from people's spending behaviour as recorded in the EFS 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 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.

49. The equivalence values are given below:

Type of household member	Equivalence value
Married head of household (that is, 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

Diagram 2

Lorenz curve for a typical income distribution

50. 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 ($=£20,000/1.86$).

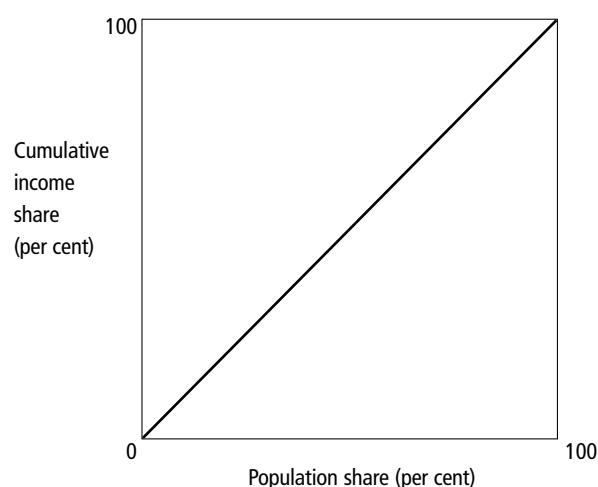
51. This quantity is used to produce the single ranking used in all the tables in this analysis (apart from the Gini coefficients which have to be ranked afresh for each different definition of income).

52. It is important to note that most monetary values shown in the analysis are ordinary (that is, un-equivalised) £ per year, not equivalised £ per year. Where equivalised values do appear (for example, the quintile points in Table 16A of Appendix 1), they are shown in *italics*.

Gini coefficient

53. 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 2) that is, 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 3). 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 one (or 100 per cent).

Diagram 3

Complete income equality

54. 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 analysis are based on distributions of equivalised income, for example the coefficient for original income is calculated after dividing the original income for all the households by their appropriate equivalence values.

55. 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 equalise 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 (for example, state education): the equivalence scales used in this analysis are based on actual household spending and do not, therefore, apply to such items as notional income.

Impact of population weighting

56. The survey results have been re-weighted and grossed so that the population totals reflect the whole household population, a process described as population weighting. Different weights 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 EFS. Population weighting 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 population-weighted data set are different from estimates based on the sample. Indeed, if they were not, there would be little point in the weighting. The effect of weighting on some of the major variables used in the analysis was given in the 1997–98 analysis. More detail about the effect of weighting can be obtained from ONS on request.

Sampling errors and reliability

57. As the EFS 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.

58. It is difficult to calculate these standard errors exactly because of the multi-stage design of the EFS sample and the population weighting, but we have made a good approximation by combining the simple random formula with the appropriate design factor from the EFS 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 and the population weighting to the standard error using the simple random sample formula.] The most appropriate design factor from the EFS 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 2003–04, and S^2 is the estimate of the population variance.

59. The standard error for normal weekly disposable income of all households is slightly more than 1 per cent of the mean but, for the less frequent household types, for example, one adult with children and three or more adults with children, it is likely to be higher.

60. 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.

61. The standard errors for the household types are larger than for the whole sample, mainly because the sample sizes concerned are smaller. For quintile 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.

62. The 'complex' standard errors for quintile and decile groups are quite a bit larger than the simple random sample estimates.

Previous analyses

63. This analysis is the latest in an annual series covering the years from 1957 onwards. From 1987 onwards, the analyses 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 analysis was published on the National Statistics website in May, and in the June 2004 edition of *Economic Trends*. A list of the previous articles was included in the article published in March 1997.

64. The results in all analyses are intended to be free standing: they were not designed for direct comparison with other years except where some limited comparisons were made in them. 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 analysis gives such a comparison for the years 1981 to 2003–04.