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From the Director: Sir John Boreham, K.C.B.

23 December 1983

Dear Prime Minister

Prime Minister

To see, together with Policy Unit note immediately below. Agree we just thank Sir John for sending you this interesting article?

I think you will be interested in the enclosed off-print of the latest in a series of annual articles analysing the effects of taxes and benefits on household incomes, published in November Economic Trends.

Based on an analysis of the Family Expenditure Survey 1982, this work shows how taxes and benefits reduce income inequality. Before taxes and benefits, the 20 per cent of households with the lowest incomes got only 1/2 per cent of total income; after taxes and benefits they got 7 per cent. The share of the top 20 per cent fell from 47 per cent to 39 per cent.

The special feature of this year's article is an assessment of the impact of the tax-benefit system on households classified by the employment status of their head. This additional analysis shows how taxes and benefits reduce the gap in income between households in which the head is working and those in which he (or she) is not working, for whatever reason. The range of average incomes is reduced from (£1,720-10,750) to (£4,890-8,140).

I would welcome any comments and suggestions you might have on that analysis. We can do special analyses on request, for example to examine the effects of particular taxes or benefits on household incomes.

Yours sincerely  
John Boreham

JOHN BOREHAM

The Rt Hon Margaret Thatcher, MP  
Prime Minister  
10 Downing Street  
LONDON  
SW1

Enc

May I have a copy of this for my files (and the new document)

3/1/84  
PB  
Spence

5 January 1984

Prime Minister

MR BARCLAY

91.

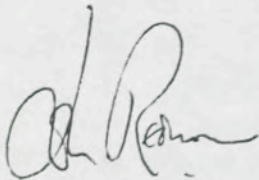
THE EFFECTS OF TAXES AND BENEFITS ON HOUSEHOLD INCOME

The survey shows just how complex the cash benefit and tax relief systems are. The help does not always go to those in need. The top 20 per cent of income-earners receive £540 a year in cash benefits from the state, particularly in the form of Child Benefit.

← Twelve per cent of the top one-fifth of earners in the country (grossing £18,000 per household in 1982) were public sector tenants benefiting from the housing subsidies that that implies. In addition, the top one-fifth of earners benefited most from the public education system, as on average they have more children. They are also likely to be larger beneficiaries of rail subsidies.

Most of the other findings of the survey of the impact of taxes and benefits are unremarkable. Tables illustrate that income tax is indeed a progressive tax, that unemployed households rely extensively on state benefits, and that the payment of cash benefits does more than anything else to narrow the income differentials.

The only clear message that I can see from the report is that the total system is complex and costly, and that it needs detailed analysis to find out who loses and who wins from it. A reply to John Boreham could thank him for the enclosure, but need not request any additional information or analysis.



JOHN REDWOOD

## **The effects of taxes and benefits on household income 1982**

# The effects of taxes and benefits on household income, 1982

## Summary of main results

During 1982 the Government raised and spent £128 billion. Directly or indirectly, most of the revenue is raised from UK households, and the expenditure benefits households. For any one household, payments and benefits will not necessarily be equal; the aim of this article is to examine how the balance varies by income level, and therefore how the distribution of income is altered by the tax-benefit system.

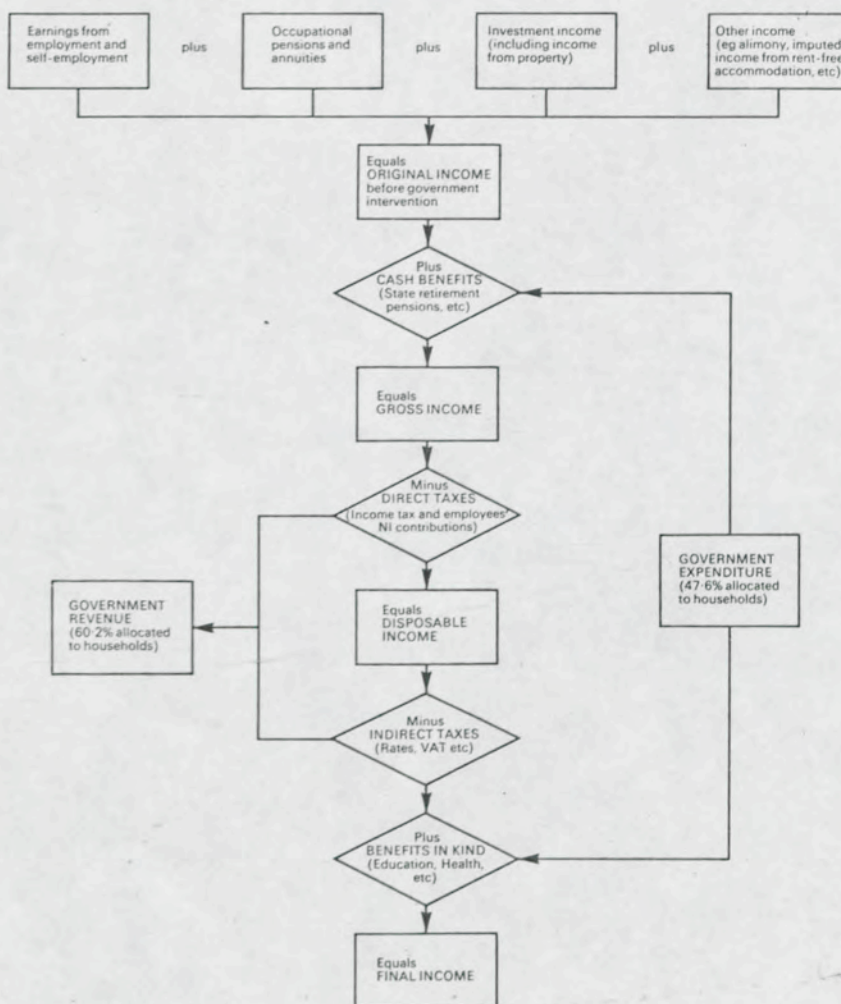
The main results of the analysis are:

- (i) The tax-benefit system as a whole has the effect of reducing income inequality. In 1982 its effect was to increase the share of total income of the bottom 20 per cent of households from  $\frac{1}{2}$  per cent to 7 per cent. The payment of cash benefits plays the largest part in reducing income dispersion.
- (ii) The income of a household depends to a large extent on its size and composition. Households are divided into ten groups according to their composition and

the effect of the tax-benefit system on each group is examined. This analysis shows that the greatest reductions in income inequality brought about through the tax-benefit system occur within the groups of retired households, lone parent households and households with three or more children.

- (iii) The special feature in this year's article is an analysis of the effect of the tax-benefit system on households classified by their employment status. The analysis shows how taxes and benefits reduce the gap in income between households in which the head is working and those where he (or she) is not working.
- (iv) Special attention is paid to households where the head is under retirement age but is not able to work or to seek work. This group contains many one-parent families, student households, and households headed by a disabled person. Many cash benefits are designed to help such people and it is shown that their position is substantially improved by the social security system.

CHART 1  
Stages of redistribution



### Introduction

Chart 1 illustrates the stages of redistribution examined in this article. Initially, households receive income from various sources: as a result of their employment (eg, wages and salaries, income from self-employment); from occupational pensions; from their investments; from other households (eg, gifts and alimony payments) and from private non-profit making institutions such as charities. Total income from these sources constitutes *original income*, that is, the income received by a household before Government intervention. The flow chart shows the various ways in which Government then raises revenue from households and distributes benefits to them both in cash and in kind. This article aims to quantify the effects of these actions on the distribution of income amongst households.

The main source of data is the Family Expenditure Survey (FES), 1982. This survey collects information from households on their composition and on the income, direct tax payments and expenditure of each household member. The improved response rate to the survey observed in 1981

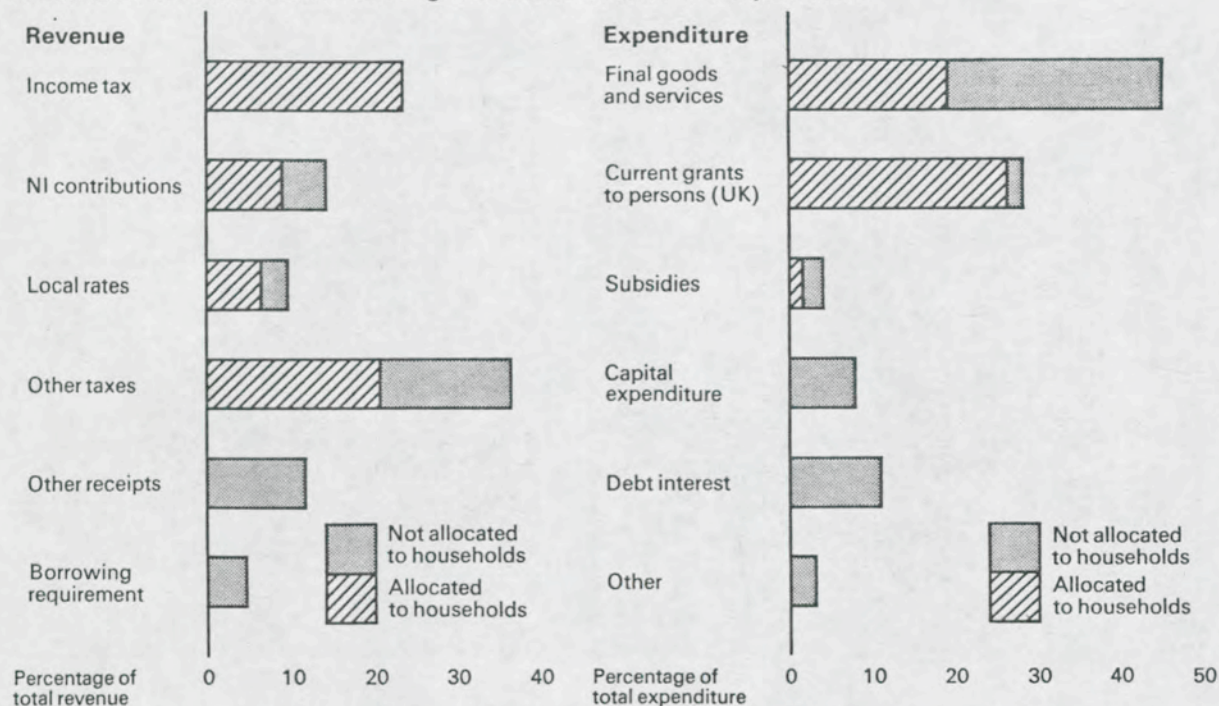
was maintained in 1982, when 7 428 households participated, a response rate of 71.8 per cent. FES data is supplemented by other sources, particularly in the imputation of benefits in kind.

It has been possible to allocate to individual households only 60 per cent of Government revenue and 48 per cent of expenditure (Charts 1 and 2). The remaining items of revenue and expenditure have not been allocated to households either because it would be inappropriate to do so (eg, the Government Borrowing Requirement) or because the data required to do so are not available (eg, expenditure on personal social services). Since the total amount of revenue allocated exceeds the total amount of benefits, less significance must be attached to the exact figures of 'gains' and 'losses' than to broad patterns of redistribution, particularly in the middle income ranges.

The methods used in preparing the estimates are explained in Appendix 1 and the detailed results are given in Appendix 3.

CHART 2

#### Allocated and unallocated items of government revenue and expenditure



## Summary of the effects of taxes and benefits, 1982

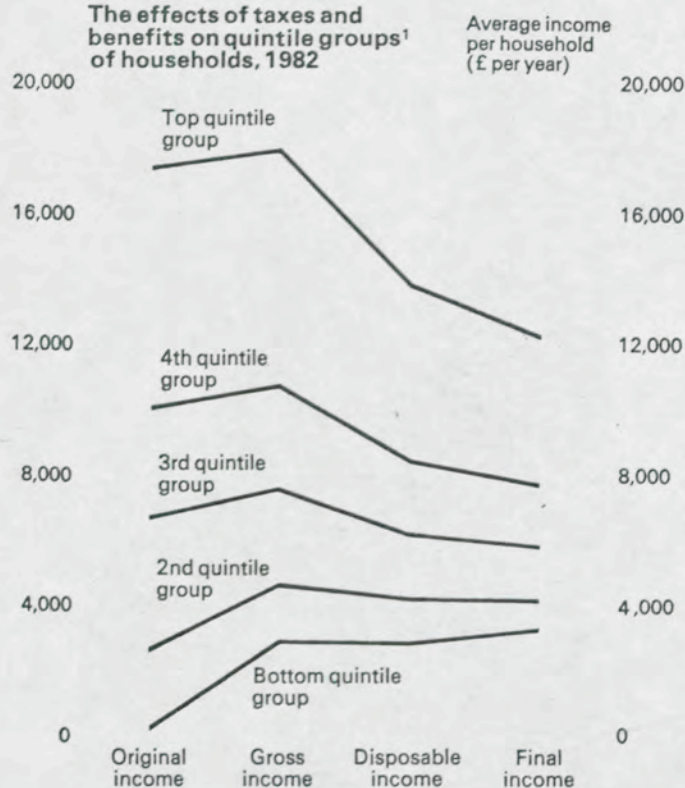
TABLE A

	Quintile groups of households ranked by original income					Average over all households
	Bottom	2nd	3rd	4th	Top	
<b>Average per household (£ per year)</b>						
Original income .. .. .	150	2 620	6 690	10 040	17 390	7 380
<i>plus</i> cash benefits .. .. .	2 690	1 970	890	680	540	1 350
Gross income .. .. .	2 830	4 580	7 580	10 720	17 920	8 730
<i>less</i> direct taxes .. .. .	10	430	1 430	2 280	4 100	1 650
Disposable income .. .. .	2 820	4 160	6 150	8 440	13 820	7 080
<i>less</i> indirect taxes .. .. .	740	1 220	1 710	2 190	3 050	1 780
<i>plus</i> benefits in kind .. .. .	1 140	1 200	1 360	1 420	1 490	1 320
Final income .. .. .	3 220	4 130	5 790	7 670	12 260	6 620
Percent that are public sector tenants ..	57	38	33	20	12	32
<b>Average per household (number)</b>						
Children (ie, under 16) .. .. .	0.4	0.5	0.9	0.9	0.7	0.7
Adults .. .. .	1.4	1.7	2.0	2.2	2.7	2.0
Retired people .. .. .	0.9	0.7	0.2	0.1	0.1	0.4
Economically active people <sup>1</sup> .. .. .	0.1	0.7	1.4	1.7	2.2	1.2

<sup>1</sup> See Appendix 1, para 11 for definition of economically active.

CHART 3

The effects of taxes and benefits on quintile groups<sup>1</sup> of households, 1982



<sup>1</sup> Households are ranked throughout by their original incomes

## PART I

## RESULTS FOR ALL HOUSEHOLDS

## Original income

Distribution of household original income is highly unequal (Table A and Chart 3). The 20 per cent of households with lowest original income (the lowest 'quintile group') had an average original income of only £150 per annum in 1982, compared with an average original income of about £17 400 per annum in the highest quintile group.

The size of the original income of a household depends to a large extent on how many economically active people it contains (Chart 4). This chart shows clearly that the average original income in each decile group is closely related to the number of economically active household members. It also shows that this relationship remains true after the effects of the tax-benefit system have been taken into account, though the relationship is slightly less pronounced. Only one in seventeen households in the lowest quintile group contain one or more economically active persons. Over two-thirds of the households in this group are retired (Table B) – defined as households where at least half the total gross income comes from retired people – and the majority of these have virtually no original income. The remainder include households either containing no earners (such as single full-time students and lone parent households) or whose only earners are unable to work for all or part of the year. Only 2 per cent of households in this lowest quintile group contain one or more people who were in employment for the whole year.

The composition of each quintile group of households ranked by original income,<sup>1</sup> 1982

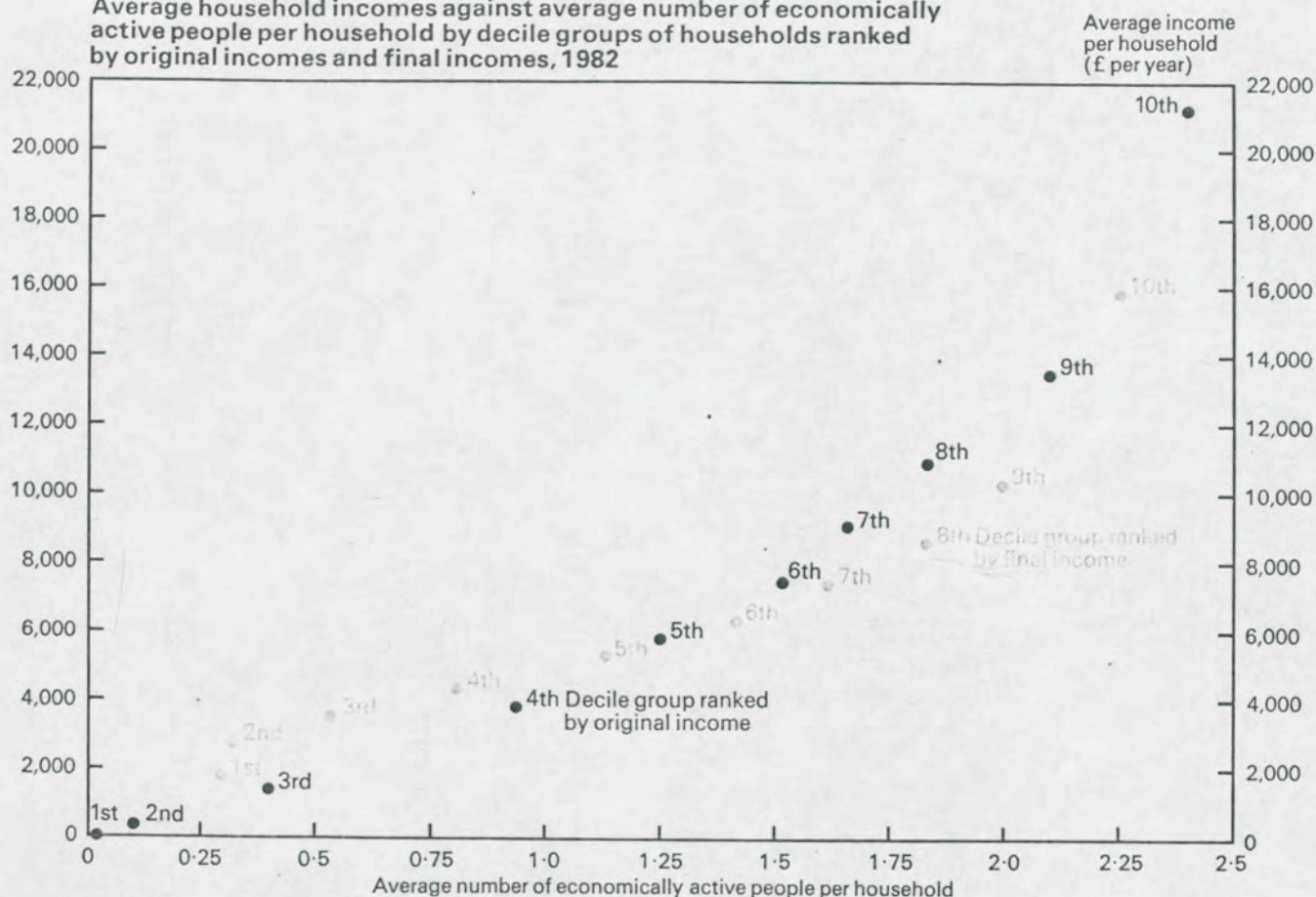
TABLE B

	Quintile group					Total
	Bottom	2nd	3rd	4th	Top	
<b>Percentages</b>						
Household type						
1-2 adults retired	68	38	5	1	—	23
1 adult (other)	9	16	14	7	2	9
2 adults (other)	5	15	24	28	28	20
2 adults with children	8	16	41	39	24	26
3 or more adults	3	9	15	24	45	19
1 adult with children	7	5	1	1	—	3
Total	100	100	100	100	100	100

<sup>1</sup> Appendix 3, Table 7 gives fuller details.

CHART 4

Average household incomes against average number of economically active people per household by decile groups of households ranked by original incomes and final incomes, 1982



### Average value of cash benefits<sup>1</sup> for each quintile group of households ranked by original income, 1982

TABLE C

	Quintile group					Total
	Bottom	2nd	3rd	4th	Top	
<b>£ per household</b>						
Age-related	1 340	1 110	280	160	110	600
Income-related	990	480	200	140	130	390
Child-related	100	150	280	290	230	210
Other <sup>2</sup>	250	230	130	90	60	150
<b>Total</b>	<b>2 690</b>	<b>1 970</b>	<b>890</b>	<b>680</b>	<b>540</b>	<b>1 350</b>
Cash benefits as a percentage of gross income	95	43	12	6	3	15

<sup>1</sup> Appendix 3, Table 5 gives more details of cash benefits.

<sup>2</sup> Mainly related to sickness and disability.

### Direct taxes as a percentage of gross income for each quintile group of households ranked by original income, 1982

TABLE D

	Quintile group					Total
	Bottom	2nd	3rd	4th	Top	
Income tax	0.3	7.4	13.9	15.8	18.1	14.5
National Insurance contributions	—	2.0	5.0	5.4	4.8	4.4
<b>Total</b>	<b>0.4</b>	<b>9.3</b>	<b>18.9</b>	<b>21.2</b>	<b>22.9</b>	<b>18.9</b>

Chart 3 shows how the dispersion of incomes is reduced at each stage of redistribution, so that average final income ranges from £3 220 to £12 260, a ratio of about 1:4 compared with the ratio of original incomes of about 1:120. Each stage will now be examined in more detail.

#### Cash benefits

Most cash benefits are designed to help the *aged*, the *sick* and *disabled*, and people on *low incomes* (Table C); such individuals are concentrated in households located in the lowest original income ranges. The major exceptions are *child-related benefits* (mainly Child Benefit), which on average are much larger in the top half of the distribution than the bottom half because in the top half there are more children per household than at the lower end. Nevertheless, the overall effect of the payment of cash benefits is to make a significant reduction in income inequality.

#### Direct taxes

Direct taxes are assessed mainly on original income. Although certain cash benefits such as retirement pensions and (from July 1982) unemployment benefits are subject to income tax, the personal tax allowances are large enough to prevent households at the lower end of the income scale from paying much tax. The percentage of gross income paid in *income tax* rises from 0.3 per cent for the lowest quintile group to just over 18 per cent for the highest (Table D). The size of *employees' National Insurance contributions* paid by each household varies with the number of persons who are in employment and with household income, although the existence of an earnings ceiling and the freedom of some working wives to elect to pay reduced contributions means that the correlation between income and contributions is not as strong as that between income

## Indirect taxes<sup>1</sup> as a percentage of disposable income for each quintile group of households ranked by original income, 1982

TABLE E

	Quintile group					Total
	Bottom	2nd	3rd	4th	Top	
Domestic rates (net) <sup>2, 3</sup>	3.4-7.3	5.4-6.0	4.5-4.7	3.8-3.9	2.9	3.7-4.2
VAT	5.1	7.2	7.3	7.4	6.8	7.0
Duty on beer	0.7	1.0	1.2	1.1	0.9	1.0
Duty on wines and spirits	0.7	1.2	1.1	1.0	1.2	1.1
Duty on tobacco	3.5	3.5	3.1	2.3	1.5	2.4
Duty on hydrocarbon oils	0.6	1.4	1.8	1.8	1.6	1.6
Car tax and vehicle excise duty	0.4	0.9	1.0	1.0	0.9	0.9
Other taxes on final goods and services	1.6	1.6	1.5	1.4	1.1	1.3
Intermediate taxes	6.2	6.6	6.1	5.9	5.1	5.8
Total <sup>2</sup>	23.0-26.2	28.9-29.5	27.7-27.9	25.8-25.9	22.1	24.8-25.2

<sup>1</sup> Appendix 3, Table 6 gives more detailed figures on indirect taxes.

<sup>2</sup> Net of rate rebates, but including water, etc. charges.

<sup>3</sup> The ranges reflect the alternative treatment of rates - see box below.

and income tax. However, the payment of direct taxes further evens out the income distribution as Chart 3 illustrates.

### Indirect taxes

Unlike cash benefits and direct taxes, indirect taxes as a whole do not have the effect of reducing income inequality, as measured by final income. Their overall impact is very similar in both the lowest and the highest quintile groups (Table E). However, within the broad group of indirect taxes, individual taxes have divergent effects on income inequality.

Households in the bottom quintile group, particularly the retired, pay on average a smaller proportion of their disposable income in VAT than other households because low income households tend to spend a higher proportion of their income on goods which are zero-rated, such as food. They are also less likely to be car owners and will hence pay less car tax and vehicle excise duty. Taxes on housing, in the form of domestic rates (together with water charges etc, but net of rebates), form a comparatively high proportion of expenditure of the lower quintile group, though this proportion declines if rates payments covered by Supplementary Benefit are excluded (See Box). On the other hand, these households pay the largest proportion of disposable income on tobacco duty.

### Average value of benefits in kind<sup>1</sup> for each quintile group of households ranked by original income, 1982

TABLE F

	Quintile group					Average over all households
	Bottom	2nd	3rd	4th	Top	
<b>£ per household</b>						
Education	290	440	620	710	730	560
Welfare foods	30	30	20	20	20	30
Health	680	610	570	540	550	590
Housing subsidy	120	90	80	50	40	80
Other	10	30	60	90	150	70
<b>Total</b>	<b>1 140</b>	<b>1 200</b>	<b>1 360</b>	<b>1 420</b>	<b>1 490</b>	<b>1 320</b>
Benefits in kind as a percentage of final income	35	29	23	18	12	20

<sup>1</sup> Appendix 3, Table 6 gives more detailed figures on benefits in kind.

## INDIRECT TAXES

### Intermediate taxes

Some taxes, such as VAT and excise duties on petrol or spirits, have a *direct* effect on the final price of goods and services. However, the producers of these goods and services also incur taxes such as employers' National Insurance contributions and surcharge, non-domestic rates and duty on hydrocarbon oils, part of which they may pass on to households through increases in the price of their products. These are called intermediate taxes.

### Rates paid by Supplementary Benefit recipients

The FES records in full the rent and rates payments of households receiving Supplementary Benefit (SB), despite the fact that these costs are met in part or in full by the DHSS. In other words, although they themselves pay their rent and rates bills, at least part of the money to do so is provided by the DHSS specifically for this purpose. There is thus a dilemma in deciding how to treat the rates payments of SB recipients: whether (a) to show the full payment as part of their indirect tax payments, or (b) to show them paying only the amount not covered by SB on the argument that this represents their effective rates burden. In Tables E, N and T, ranges are given for rates payments: the higher point has been calculated on assumption (a), and the lower point on assumption (b). In all other tables the payment is shown in full. The Unified Housing Benefit scheme, which came into operation on 22 November 1982 for certain SB recipients, meant that such households were switched to a rebate system of housing benefit which had the effect of reducing their income with a matching reduction in their rent and rates payments. The effect of this change on 1982 FES data is considered to have been minimal and therefore no adjustments have been made. Treatment of the new scheme will be discussed in detail in next year's article.



For the remaining 80 per cent of households, total indirect tax payments as a proportion of disposable income decline as one ascends the income scale. Apart from spending patterns, one factor which affects the impact of indirect taxes is the proportion of disposable income which is saved. Thus, as Table E shows, the overall impact diminishes from about 29 per cent in the second quintile to 22 per cent in the top quintile, partly because higher income households save a larger proportion of their income than households with more modest incomes. The impact of most indirect taxes taken individually also declines for the top quintile group.

#### Benefits in kind

Government expenditure in providing certain goods and services to households either free at the time of use or at subsidised prices is converted by imputation into the equivalent of an income flow to individual households in order to arrive at final income. The two major items for which such imputations are made are *health* and *education* services, which together accounted for 20.4 per cent of total general government expenditure in 1982. Other items for which imputations are made are *welfare food* (mainly *school meals*), the *housing subsidy*, the *passenger rail travel subsidy*, and expenditure on the *option mortgage scheme* and on *life assurance premium relief*, together accounting for a further 2.5 per cent of general government expenditure. Details of the methodology used for making the imputations are given in Appendix 1 (paragraphs 29–36).

Education benefit to individual households is imputed by reference to the number of pupils and students in the household (students living away from home are excluded). Since households in the upper half of the income distribution have, on average, more children than those in the lower half (Table A) and children in high income households tend to spend longer in education, education benefit increases as income increases (Table F). On the other hand, although most welfare foods benefit children too, their impact is greatest in the lower income groups since children from low income households are more likely to take school meals and to have them provided free of charge.

Expenditure on health services has been allocated to individuals according to the average cost to the Exchequer of each type of service and to the estimated use made of each service by people of different age and sex. Benefits are then summed for the members of the household to yield figures on a household basis, so that not only the sex-age

### Percentage shares of total household income, 1982

TABLE G

	Percentage in each quintile group of households, re-ranked at each stage			
	Original income	Gross income	Disposable income	Final income
Quintile group				
Bottom ..	0.4	5.7	6.8	6.9
2nd ..	7	11	12	12
3rd ..	18	18	18	18
4th ..	27	25	24	24
Top ..	47	41	40	39
Total ..	100	100	100	100
Decile group				
Bottom ..	—	2.3	2.8	2.7
Top ..	29	25	24	24
Gini coefficient (per cent)	48.2	36.2	33.2	33.0

composition but also the size of the household determines the distribution of health service benefits. Age and sex are by no means the only possible determinants on which the allocation of health service expenditure might be based but age is certainly a very important factor. Data availability also limits the choice of variables. Since old people tend to use health services more than the young and since the services they use are generally more costly than other forms of care, households in the lowest quintile group, in which the elderly predominate, are allocated the highest imputed benefit (£680).

Broadly speaking, the housing subsidy is regarded as the extent to which local authority current expenditure exceeds income on the housing revenue account; in the calculations, tax relief on mortgage interest is regarded not as a housing subsidy but as an adjustment to direct taxes. The housing subsidy has been spread between public sector tenants. As the proportion of households who are public sector tenants is 57 per cent in the lowest quintile group compared with only 12 per cent in the highest group (Table A), the imputed housing subsidy is larger for low income households than for others.

The remaining three items, grouped as 'Other' in Table F, tend to benefit people of working age, most of whom are in the middle and upper ranges of the income distribution.

Table F shows that in absolute terms the average of all benefits in kind as a result of these government expenditures increases with household income, from £1 140 for the lowest quintile group to £1 490 for the highest. However, as a proportion of final income, benefits decrease from 35 per cent in the lowest quintile to 12 per cent in the highest quintile, indicating that this expenditure contributes to the reduction in income inequality.

#### Summary

Taken together taxes and benefits reduce income inequality. Cash benefits have the greatest impact and only indirect taxes actually increase inequality, though marginally. An alternative way to illustrate the extent of income redistribution is to examine how income shares are modified by the tax-benefit system (Table G). For example, households in the highest quintile group receive 47 per cent of all original income. After receiving cash benefits, this group's share falls to 41 per cent. At the other end of the scale, the share of the lowest quintile group rises from 0.4 per cent to 5.7 per cent. Further, but comparatively smaller, compressions of the income distribution occur at the stages of *disposable* and *final* income.

Though not without its drawbacks the Gini coefficient is the most widely used single summary measure of the inequality of the distribution of income (see paragraph 38 of Appendix 1). It takes values between 0 and 100 per cent – the higher values indicating greater inequality. While it is dangerous to draw detailed conclusions from isolated changes in the Gini coefficient, the reduction in the Gini values from 48.2 per cent to 36.2 per cent shown in Table G clearly confirm that cash benefits produce the largest reduction in income inequality.

#### REDISTRIBUTION WITHIN HOUSEHOLDS CLASSIFIED BY COMPOSITION

The income of a household depends on its composition as well as on the incomes of its individual members. Therefore the following section examines redistribution within groups of households of similar size and composition. Households are classified into ten groups according to their composition

## The ten household types, 1982

TABLE H

	1 adult retired	2 adults retired	1 adult non- retired	2 adults non- retired	3 or more adults	1 adult with children	2 adults 1 child	2 adults 2 children	2 adults 3 or more children	3 or more adults with children	All house- holds
Sample numbers .. .. .	939	746	701	1 497	843	209	626	897	375	595	7 428
Average per household											
Children .. .. .	—	—	—	—	—	1.7	1.0	2.0	3.4	1.6	0.7
Adults .. .. .	1.0	2.0	1.0	2.0	3.4	1.0	2.0	2.0	2.0	3.4	2.0
Economically active people <sup>1</sup> —full-time	—	—	0.7	1.2	1.9	0.2	1.1	1.0	1.0	1.8	0.9
Economically active people <sup>1</sup> —part-time	—	—	0.1	0.3	0.5	0.2	0.3	0.4	0.3	0.6	0.3
Retired people .. .. .	1.0	1.7	—	0.2	0.3	—	—	—	—	0.1	0.4
Average original income (£ per year) ..	790	1 700	5 080	9 430	12 220	2 190	9 060	9 120	8 240	12 420	7 380
Percentage that are public sector tenants	46	40	29	25	30	62	26	21	40	35	32

<sup>1</sup> See Appendix 1, para 11 for definition of economically active.

Percentage shares of income at each stage within each household type,<sup>1</sup> 1982

TABLE J

	Percentages in each quintile group of households, re-ranked at each stage									
	1 adult retired	2 adults retired	1 adult non- retired	2 adults non- retired	3 or more adults	1 adult with children	2 adults 1 child	2 adults 2 children	2 adults 3 or more children	3 or more adults with children
Original income										
Bottom fifth .. .. .	—	—	1	5	6	—	5	7	2	6
Next fifth .. .. .	1	3	9	13	14	—	14	15	13	13
Middle fifth .. .. .	5	9	19	19	19	8	18	19	19	18
Next fifth .. .. .	17	21	27	25	24	27	23	23	24	23
Top fifth .. .. .	77	67	45	38	36	64	39	36	43	40
Total .. .. .	100	100	100	100	100	100	100	100	100	100
Gross income										
Bottom fifth .. .. .	13	12	6	8	10	10	9	10	9	9
Next fifth .. .. .	16	15	12	14	15	14	14	15	14	14
Middle fifth .. .. .	17	17	18	18	19	17	18	19	18	18
Next fifth .. .. .	20	21	24	24	23	22	22	23	22	22
Top fifth .. .. .	34	36	40	35	33	36	37	34	37	37
Total .. .. .	100	100	100	100	100	100	100	100	100	100
Disposable income										
Bottom fifth .. .. .	14	13	8	9	11	11	10	11	11	10
Next fifth .. .. .	16	16	13	14	15	15	14	15	15	14
Middle fifth .. .. .	18	18	18	18	19	18	18	19	18	17
Next fifth .. .. .	20	21	23	23	23	22	22	22	22	21
Top fifth .. .. .	31	33	38	35	32	33	36	33	36	37
Total .. .. .	100	100	100	100	100	100	100	100	100	100
Final income										
Bottom fifth .. .. .	13	13	7	9	10	10	10	11	12	11
Next fifth .. .. .	17	16	13	14	15	15	14	16	16	15
Middle fifth .. .. .	19	19	17	18	18	18	18	19	18	18
Next fifth .. .. .	22	22	23	23	23	23	22	23	22	21
Top fifth .. .. .	30	31	39	36	34	33	36	32	33	36
Total .. .. .	100	100	100	100	100	100	100	100	100	100
Gini coefficients (per cent)										
Original income .. .. .	74	65	45	33	30	66	34	28	40	34
Gross income .. .. .	21	23	34	27	24	26	28	24	28	28
Disposable income .. .. .	17	19	30	25	21	23	26	22	25	27
Final income .. .. .	17	18	32	27	23	23	26	21	21	25

<sup>1</sup> Appendix 3, Table 4 gives more data for each household type.

## Average number of economically active<sup>1</sup> people per household by quintile group of original income within household type, 1982

TABLE K

	Household type <sup>2</sup>					
	1-2 adults retired	1 adult non-retired	2 adults non-retired	2 adults with children	3 or more adults	1 adult with children
<b>Average per household (number)</b>						
Bottom fifth .. .. .	—	0.2	0.9	0.9	1.3	—
Middle three-fifths .. .. .	—	0.9	1.6	1.5	2.5	0.5
Top fifth .. .. .	0.1	1.0	1.8	1.7	3.0	0.9

<sup>1</sup> See Appendix 1, para 11 for definition of economically active.

<sup>2</sup> In Tables K to N some of the ten household types have been combined. The quintile groups have not been recalculated; the figures shown are

simply weighted averages of the quintile groups of the constituent household types.

(Table H). Quantile analysis at each stage of the re-distribution process may then be carried out for each group separately. The ten groups chosen comprise two containing retired persons, three including adults only, and five including adults and children. Their exact definitions are given in Appendix 1 (paragraphs 6 to 10).

The highly skewed distribution of original income within the *retired* household groups is very striking (Table J), with the top quintile group receiving over two-thirds of the income. The main components of original income for retired households are occupational pensions and investment income which are concentrated in a small number of households, whilst the majority have very little cash income other than their state pension (a cash benefit).

Since income from employment is the largest component of original income for *non-retired* households, the spread of original income within these groups could be expected to be related to the variation in the number of earners per house-

hold. This is particularly true of single adult households, whether or not they have children: at the lower end of the income distribution within lone parent families and single adult households there are substantial numbers of economically inactive persons (Table K).

Table J indicates that income dispersion within each household group is reduced by government intervention through the tax-benefit system. The reductions are particularly marked for retired households, one-parent families, and households with two adults and three or more children. The individual components of the system vary in importance for different groups of households and the following paragraphs examine each redistributive stage separately.

### Cash benefits

*Age-related* benefits and *child-related* benefits are fairly evenly distributed within the retired household groups and household groups with children respectively (Table L).

## Cash benefits by quintile group of original income within each household type, 1982

TABLE L

	Household type <sup>1</sup>					
	1-2 adults retired	1 adult non-retired	2 adults non-retired	2 adults with children	3 or more adults	1 adult with children
<b>Average per household (£ per year)</b>						
<b>Age-related</b>						
Bottom fifth .. .. .	1 850	350	810	50	890	80
Middle three-fifths .. .. .	1 950	300	230	20	270	190
Top fifth .. .. .	1 860	20	80	10	140	—
<b>Child-related</b>						
Bottom fifth .. .. .	—	—	10	580	270	490
Middle three-fifths .. .. .	—	—	—	560	250	590
Top fifth .. .. .	—	—	—	550	240	540
<b>Income-related</b>						
Bottom fifth .. .. .	620	1 180	800	1 490	1 440	1 990
Middle three-fifths .. .. .	310	110	90	90	420	1 660
Top fifth .. .. .	30	30	10	10	190	160
<b>Other<sup>2</sup></b>						
Bottom fifth .. .. .	200	340	430	230	670	80
Middle three-fifths .. .. .	180	50	100	50	190	60
Top fifth .. .. .	90	40	40	30	80	20
<b>Total cash benefits as a percentage of gross income</b>						
Bottom fifth .. .. .	100	92	47	49	47	100
Middle three-fifths .. .. .	81	9	4	8	9	66
Top fifth .. .. .	32	1	1	3	3	9

<sup>1</sup> See footnote <sup>2</sup> to Table K.

<sup>2</sup> Mainly related to sickness and disability.

### Direct taxes as a percentage of gross income by quintile group of original income within each household type, 1982

TABLE M

	Household type <sup>1</sup>					
	1-2 adults retired	1 adult non-retired	2 adults non-retired	2 adults with children	3 or more adults	1 adult with children
(a) Income tax						
Bottom fifth .. .. .	—	0.7	5.7	4.7	5.9	—
Middle three-fifths .. .. .	2.1	16.6	16.3	14.3	14.8	1.6
Top fifth .. .. .	16.6	20.6	19.3	19.0	17.7	12.1
(b) National Insurance contributions						
Bottom fifth .. .. .	—	—	2.1	2.8	2.7	—
Middle three-fifths .. .. .	—	5.2	5.5	5.5	5.3	1.0
Top fifth .. .. .	—	5.5	4.8	4.2	4.6	4.6

<sup>1</sup> See footnote <sup>2</sup> to Table K.

### Indirect taxes as a percentage of disposable income by quintile group of original income within each household type, 1982

TABLE N

	Household type <sup>3</sup>					
	1-2 adults retired	1 adult non-retired	2 adults non-retired	2 adults with children	3 or more adults	1 adult with children
(a) Domestic rates (net) <sup>2</sup>						
Bottom fifth <sup>1</sup> .. .. .	2.9- 7.8	5.0- 8.8	4.5- 5.7	3.7- 5.6	2.6- 4.2	1.9- 9.7
Middle three-fifths <sup>1</sup> .. .. .	5.4- 7.1	5.8- 5.9	4.0- 4.1	4.4	3.0- 3.3	2.8- 7.0
Top fifth .. .. .	6.5	3.8	3.0	3.3	2.4	4.4
(b) VAT						
Bottom fifth .. .. .	4.3	7.3	8.0	7.1	8.1	5.8
Middle three-fifths .. .. .	5.2	7.5	7.2	7.5	8.0	5.1
Top fifth .. .. .	6.0	6.7	6.6	6.0	6.9	6.1
(c) Duty on beer						
Bottom fifth .. .. .	0.4	1.9	1.0	1.1	1.5	0.5
Middle three-fifths .. .. .	0.6	1.4	1.1	1.0	1.4	0.2
Top fifth .. .. .	0.4	1.0	0.7	0.5	1.2	0.6
(d) Duty on wines and spirits						
Bottom fifth .. .. .	0.5	1.0	1.4	0.5	1.2	0.4
Middle three-fifths .. .. .	1.0	1.3	1.2	0.9	1.1	0.3
Top fifth .. .. .	1.8	1.7	1.3	0.9	1.2	0.8
(e) Duty on tobacco						
Bottom fifth .. .. .	2.7	4.1	4.8	5.1	4.7	4.9
Middle three-fifths .. .. .	2.2	2.8	2.5	2.4	2.9	3.5
Top fifth .. .. .	1.2	1.4	1.0	1.0	1.6	1.7
(f) Duty on hydrocarbon oils						
Bottom fifth .. .. .	0.5	0.9	1.6	1.5	1.7	0.2
Middle three-fifths .. .. .	0.7	1.6	1.8	1.8	2.0	0.7
Top fifth .. .. .	1.3	1.5	1.4	1.5	1.6	1.7
(g) Car tax and vehicle excise duty						
Bottom fifth .. .. .	0.4	0.4	0.9	0.8	0.8	—
Middle three-fifths .. .. .	0.5	1.0	1.0	1.0	1.0	0.3
Top fifth .. .. .	1.0	1.0	0.8	0.8	0.9	0.8
(h) Other taxes on final goods and services						
Bottom fifth .. .. .	1.6	1.7	1.7	1.6	1.4	1.7
Middle three-fifths .. .. .	1.7	1.3	1.3	1.5	1.3	1.6
Top fifth .. .. .	1.5	1.1	1.0	1.1	1.0	1.6
(j) Intermediate taxes						
Bottom fifth .. .. .	5.8	8.0	6.9	6.8	6.9	6.8
Middle three-fifths .. .. .	5.9	6.1	5.6	6.3	6.0	6.4
Top fifth .. .. .	5.6	4.9	4.7	5.1	4.9	5.5
(k) Total						
Bottom fifth <sup>1</sup> .. .. .	19.8-23.9	31.3-34.1	31.2-32.1	28.8-30.2	29.3-30.5	23.8-29.9
Middle three-fifths <sup>1</sup> .. .. .	23.5-24.8	28.9-29.0	25.7-25.8	26.8	26.7-27.0	21.8-25.2
Top fifth .. .. .	25.3	23.1	20.6	20.2	21.7	23.2

<sup>1</sup> The ranges reflect the possible different treatment of rates — see box on page 86.

<sup>2</sup> Net of rate rebates but including water, etc. charges.

<sup>3</sup> See footnote <sup>2</sup> to Table K.

*Income-related* benefits are, of course, concentrated in the lowest quintile within each household group. *Other* benefits, most of which are related to sickness and disability, are also mainly concentrated in this quintile since their recipients are often economically inactive and therefore have little or no original income.

Thus, much the highest average cash benefit as a proportion of gross income goes to the lowest quintile within each household group. This means that cash benefits reduce income inequality within each group. The reduction is particularly large for retired households where cash benefits, mainly in the form of the state retirement pension, form virtually the whole of their gross income.

#### *Direct taxes*

Retired households and single-parent households pay very little direct tax, except those in the highest quintile (Table M). Within other household groups *income tax* as a percentage of gross income increases as income rises. However, *National Insurance contributions* form a smaller proportion of gross income at the upper end of the income scale than they do in the middle, because above a certain level of income contributions are at a fixed rate. The combined effect of these two direct taxes is to reduce income inequality within each household group, although they have considerably less impact than do cash benefits.

#### *Indirect taxes*

Table N shows that indirect taxes reduce income inequality only within the *retired* household group. This reduction is caused mainly by the pattern of their payments of VAT, since retired households spend a high proportion of their income on zero-rated goods such as food and heating. Apart from domestic rates, whose payment may be covered by Supplementary Benefit, only duty on tobacco has its greatest impact on low income households in this group.

In contrast, the overall effect of indirect taxes is to increase income dispersion within most of the *non-retired* household groups. As discussed in the all-households analysis, the percentage of disposable income paid in indirect taxes depends not only on the spending pattern of a household but also on the proportion of disposable income which is saved. The payment of most indirect taxes by non-retired household groups illustrates this general tendency. The highest quintile group pay less as a proportion of disposable income than those in the middle of the income distribution and, in many cases, less than the lowest quintile too. A notable exception is duty on wines and spirits, which rises with household incomes since consumption of these items is more common in higher income households. The fall in the incidence of tobacco duty in absolute terms is particularly marked (tobacco consumption tends to be negatively correlated with income).

#### *Benefits in kind*

Broadly speaking, benefits from expenditure on education and health are fairly evenly distributed within each household group, although for a variety of reasons low income households tend to receive larger benefits. The highest average benefits from welfare foods go to households with low incomes because of their higher than average use of school meals and the greater likelihood of them being provided free of charge. The average benefit from the housing subsidy is also substantially higher for low income households within each group, because a higher proportion of low income households are public sector tenants. The average value of the 'other' benefits (passenger rail travel

subsidy, option mortgage expenditure and life assurance premium relief) is much higher for high income than for low income households in each group. The overall effect of benefits in kind is to reduce income inequality within each household group (see Appendix 3, Table 4).

## PART II

### REDISTRIBUTION WITHIN HOUSEHOLDS CLASSIFIED BY THE EMPLOYMENT STATUS OF THE HEAD

As already shown, the income of a household both before and after redistribution is highly correlated with the number of economically active members it contains. This section of the article will examine in some detail a further aspect of the relationship between income and activity: the way in which taxes and benefits vary according to the employment status of the head of the household.

The FES data allow households to be classified by the employment status of their head, and this is used as the criterion for deriving the following six groups or categories chosen for this analysis:

Households headed by—

- A: a self-employed person or an employee who has been in paid work for at least nine months out of the twelve months preceding interview;
- B: an employee who has been away from work (either through sickness or unemployment)
  - (i) for between three and six months of the year preceding interview;
  - (ii) for between six and twelve months of the year preceding interview;
  - (iii) for more than 12 months prior to interview;
- C: a retired person or an unoccupied person over minimum NI pension age;
- D: an unoccupied person under minimum (National Insurance) pension age.

Table P shows the number of households responding to the FES in 1982 which fall into each of these categories and further details of the definitions are given in Appendix 2. For the sake of simplicity the following shorthand labels will be used from time to time in this section.

- A – in employment
- B – away from work
  - (i) short term
  - (ii) medium term
  - (iii) long term
- C – retired
- D – unoccupied

#### Summary of main results

The impact of the tax-benefit system is different on each of the employment status groups and each is examined separately below. The main results of the analysis are:

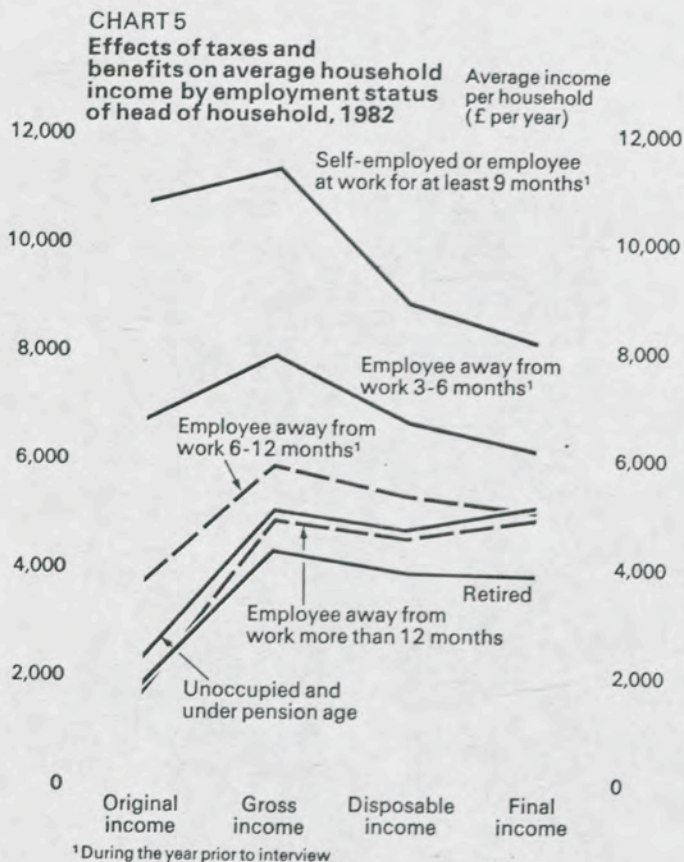
- (i) It is the households whose head is not in employment (Categories B–D) which naturally gain most through the tax-benefit system compared with those in employment (Category A). In terms of current cash flows, there is redistribution of income from those working to those not working, and hence a reduction in the disparity of income between the two categories (Table P and Chart 5).

## Summary of the effects of taxes and benefits by employment status category, 1982

TABLE P

	Employment status of head of household						Average over all households
	Self-employed or employee at work <sup>1</sup> for at least 9 months	Employee away from work <sup>1</sup> for			Retired or unoccupied and over pension age	Unoccupied and under pension age	
		3-6 months	6-12 months	More than 12 months			
Number of households in the sample ..	4 474	127	218	218	1 887	504	7 428
<b>Average per household (£ per year)</b>							
Original income .. .. .	10 750	6 640	3 750	1 720	1 850	2 360	7 380
<i>plus</i> cash benefits .. .. .	620	1 260	2 130	3 110	2 440	2 650	1 350
Gross income .. .. .	11 370	7 900	5 880	4 830	4 290	5 010	8 730
<i>less</i> direct taxes .. .. .	2 450	1 180	580	320	400	340	1 650
Disposable income .. .. .	8 920	6 710	5 300	4 520	3 890	4 680	7 080
<i>less</i> indirect taxes .. .. .	2 190	2 020	1 650	1 400	980	1 380	1 780
<i>plus</i> benefits in kind .. .. .	1 410	1 480	1 390	1 770	920	1 790	1 320
Final income .. .. .	8 140	6 170	5 030	4 890	3 830	5 090	6 620
Percent that are public sector tenants ..	23	42	52	62	42	55	32
Percent with female heads of household	10	16	12	8	47	48	22
<b>Average per household (number)</b>							
Children .. .. .	0.9	1.0	1.0	1.3	—	0.7	0.7
Adults .. .. .	2.2	2.1	2.2	2.1	1.6	1.8	2.0
People .. .. .	3.1	3.1	3.1	3.4	1.6	2.6	2.7
Retired people .. .. .	0.1	0.1	0.1	0.1	1.3	0.1	0.4
<b>Average age of head of household (years)</b>							
	42	41	41	42	72	44	50

<sup>1</sup> During the year prior to interview.



(ii) Of those households whose head is not in employment (Categories B-D), the ones gaining most through the tax-benefit system are those away from work long term, whose final income is nearly three times their original income. The final income of retired and unoccupied households is just over twice their original income.

(iii) Within the group of households whose head is in employment or self-employment (Category A), it appears that there is very little redistribution between high income and low income households.

#### Comparison between households classified by employment status

Table Q shows where households classified by employment status are situated in the distribution of *original income*. Those households in which the head is in employment for more than nine months of the year are situated in the upper part of the distribution, with nearly 90 per cent of them in the top three quintile groups. This is to be expected since the main component of original income is earnings from employment and self-employment. Those households where the head has not worked at all during the previous year, whether because he/she is, for example, retired, unemployed, sick or disabled, are concentrated in the bottom two quintile groups, with over half of households in each of these three categories falling in the lowest quintile group.

An examination of the distribution of each employment status group amongst all households ranked by *final income* shows that, although households in employment remain concentrated in the upper part of the distribution, most other categories are much more evenly spread throughout all quintile groups (Table R). The exception is the retired household group where 79 per cent of households remain in the bottom two quintiles.

## The composition of each employment status category by quintile groups of original income, 1982

TABLE Q

	Quintile groups of original income					Total
	Bottom	2nd	3rd	4th	Top	
<b>Percentages</b>						
<b>Employment status of head of household</b>						
Self-employed or employee at work <sup>1</sup> for at least 9 months	1	11	27	30	32	100
Employee away from work <sup>1</sup> for						
—3-6 months	2	42	31	15	10	100
—6-12 months	17	57	14	8	5	100
—more than 12 months	68	19	6	5	2	100
Retired or unoccupied and over pension age	54	34	8	3	2	100
Unoccupied and under pension age	52	30	10	6	3	100
All households	20	20	20	20	20	100

<sup>1</sup> During the year prior to interview.

Average original income ranges from £1 720 per annum where the head of household has not worked for twelve months or more, to £10 750 per annum where the head has not worked for three months or less, a ratio of 1:6; after all taxes and benefits this ratio is reduced to 1:2 (Table P). However, when the groups in Table R are ranked by their final income, those away from work long term move up the income scale and their place at the bottom is taken by households where the head is retired. As illustrated by Chart 5, these two groups start out with very similar original incomes but those away from work long term gain more per household from the tax-benefit system than the retired, mainly because of their receipts of child-related benefits both in cash and in kind. Two other groups switch positions in the income distribution as a result of taxes and benefits: the unoccupied and those away from work medium term, with the unoccupied starting out with about two-thirds the average original income of those away from work medium term but ending up with a slightly higher average final income.

### Category A: Head of Household Self-employed or an Employee In Paid Work For At Least Nine Months

In 60 per cent of households the head had been in paid employment or self-employment for at least nine months of the preceding year. Thus this group received the highest average original income (£10 750), 95 per cent of which was derived from wages and salaries or self-employment income.

Nearly a quarter of this income was earned by members of the household other than the main earner, indicating the importance of second incomes.

Cash benefits form a very small proportion of gross income (5 per cent) and the only payment of any size is of child benefit, which is, of course, related not to income but to the number of children in the household (Table S). Small receipts of other benefits reflect the presence in some households of dependants who may, for example, be retired, full-time students, or unemployed.

This group of households contribute more to government revenue than any other of the employment status groups. Their payments of direct taxes amount to 22 per cent of their gross income, and they are the only group who pay more in direct taxes than in indirect taxes (Table P). Those in employment spend more in absolute terms on VAT-rateable goods than other employment status groups and have higher payments of domestic rates (Appendix 2, Table 1). They pay more than other groups in duties on wines, spirits, and hydrocarbon oils, and, since they are more likely to be car owners, more in car tax and vehicle excise duty. Since most owner-occupiers are to be found in this group, payments of stamp duty on house purchase are also concentrated here. However, this group pays less than most others in duties on tobacco and beer. Nevertheless, although high in cash terms, payments of indirect taxes as a proportion of disposable income are lower than in most other groups because those in employment are

## The composition of each employment status category by quintile groups of final income, 1982

TABLE R

	Quintile groups of final income					Total
	Bottom	2nd	3rd	4th	Top	
<b>Percentages</b>						
<b>Employment status of head of household</b>						
Self-employed or employee at work <sup>1</sup> for at least 9 months	6	13	23	28	30	100
Employee away from work <sup>1</sup> for						
—3-6 months	17	22	24	24	13	100
—6-12 months	25	28	25	16	7	100
—more than 12 months	34	23	20	12	10	100
Retired or unoccupied and over pension age	46	33	13	5	3	100
Unoccupied and under pension age	34	25	19	10	12	100
All households	20	20	20	20	20	100

<sup>1</sup> During the year prior to interview.

## Average value of cash benefits for each employment status category, 1982

TABLE S

	Cash benefits					Cash benefits as a percentage of gross income (per cent)
	Age-related	Income-related	Child-related	Other <sup>1</sup>	Total	
<b>Average per household (£ per year)</b>						
Employment status of head of household						
Self-employed or employee at work <sup>2</sup> for at least 9 months	140	140	280	70	620	5
Employee away from work <sup>2</sup> for						
—3-6 months	100	730	290	130	1 260	16
—6-12 months	80	1 520	290	240	2 130	36
—more than 12 months	20	2 500	360	220	3 110	64
Retired or unoccupied and over pension age	1 960	330	10	140	2 440	57
Unoccupied and under pension age	230	1 280	240	900	2 650	53
Average over all households	600	390	210	150	1 350	15

<sup>1</sup> Mainly related to sickness and disability.

<sup>2</sup> During the year prior to interview.

more likely to save than the other employment status groups (Table T).

Although cash benefits are relatively insignificant to the income of this household group, benefits in kind are more important (Table U). In-kind benefits allocated to households in employment (£1 410 per annum) are similar in total to the amount allocated to other non-retired household groups, although as a percentage of final income they are much lower (17 per cent). Imputed income from education and health services accounts for nearly 90 per cent of the total.

Quantile analysis within this category of households produces some interesting results. The distribution of original income amongst quintile groups of households is scarcely different from the distribution of final income (Appendix 2, Table 2), and it thus appears that there is very little redistribution between high income and low income households whose head is in employment/self-employment. However, the fact that these results are on a *household* rather than an *individual* basis means that care must be taken in their interpretation. As already shown, a household's income is highly correlated with the number of

earners it contains and therefore there is a natural tendency for the upper quintile groups to have a higher share of both original and final income. A household with several earners will not only, in general, show a higher household original income but the personal tax allowances for the household will be higher than if an equivalent income had been earned by one household member only. The fact that there is little redistribution between high and low income households *on average* does not necessarily mean that there is no redistribution between high and low income households of a given size and composition.

#### Category B: Head of Household Away From Work for Three Months or More

The head of a household may be an employee who has been away from work for a period during the 12 months prior to interview either because of unemployment or because of sickness. Broadly speaking, such persons consider themselves members of the labour force but they have experienced a spell in which they have not been in paid employment. Information derived from the FES indicates that 8 per cent of heads of households in the 1982 sample experienced

### Indirect taxes as a percentage of disposable income for each employment status category, 1982

TABLE T

	Indirect taxes									
	Domestic rates (net) <sup>1, 2</sup>	VAT	Duty on beer	Duty on wine and spirits	Duty on tobacco	Duty on hydro-carbon oils	Car tax and vehicle excise duty	Other taxes on final goods and services	Inter-mediate taxes	Total <sup>1, 2</sup>
<b>Employment status of head of household</b>										
Self-employed or employee at work <sup>3</sup> for at least 9 months	3.7	7.1	1.0	1.1	2.1	1.7	0.9	1.3	5.6	24.5
Employee away from work <sup>3</sup> for										
—3-6 months	3.6-4.1	8.4	1.4	1.0	3.8	2.0	0.9	1.4	7.0	29.7-30.1
—6-12 months	3.4-4.7	7.9	1.7	1.1	4.9	1.8	1.1	1.6	6.4	30.2-31.2
—more than 12 months	2.0-5.5	7.3	1.4	1.0	5.9	1.2	0.7	1.5	6.6	28.4-31.0
Retired or unoccupied and over pension age	4.8-6.2	5.8	0.7	1.3	2.1	1.0	0.7	1.5	5.8	23.9-25.1
Unoccupied and under pension age	3.3-5.4	7.8	1.0	0.9	3.9	1.4	0.7	1.5	7.0	27.9-29.5
Average over all households	3.7-4.2	7.0	1.0	1.1	2.4	1.6	0.9	1.3	5.8	24.8-25.2

<sup>1</sup> Net of rate rebates, but including water, etc. charges.

<sup>2</sup> The ranges reflect the alternative treatment of rates - see box, page 86.

<sup>3</sup> During the year prior to interview.



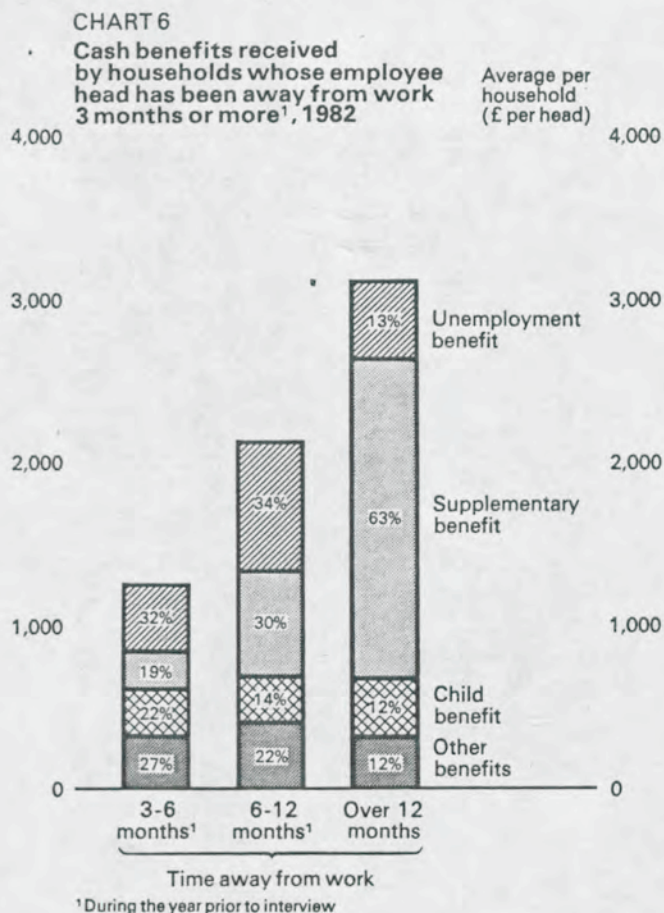
periods of absence totalling three months or more. These households have been further subdivided by the period their head spent away from work: 3-6 months (short term); 6-12 months (medium term); more than 12 months (long term). Most of the absence is due to unemployment rather than sickness.

Before examining the effects of the tax-benefit system on these three groups, some of their basic household characteristics are worth noting and in particular how these vary according to the period spent away from work. Though the average number of adults in the household remains almost the same for each of the three groups, those away from work long term tend to have more children (Table R). The proportion of public sector tenants is higher than average within all three groups and tends to rise as the period away from work increases. The average age of the head of household, around 41 years, hardly varies between the three groups and is also virtually identical to the average age of heads in employment. The age distribution of all four groups is also very similar, the only major difference being a rather higher proportion of young heads of households (20-25 year olds) away from work than in the households in employment. Subject to one qualification, it would thus appear from the FES that older economically active heads of households are on average not more likely to experience longer periods away from work than their younger counterparts. The qualification is that an older person who has been away from work for a long period may be more likely to consider himself unoccupied and so be classified as such (see section on the unoccupied below).

As might be expected, average original income drops sharply as the period away from work increases, ranging from £6 640 per annum where the head has been away from work short term to £1 720 for those away from work long term (Table P). Apart from the length of time away from work, another factor in this dispersion is that for those households where the head is married, the longer the period away from work of the head, the less likely his spouse is to be employed.

Chart 5 shows what an important effect the tax-benefit system has in reducing inequality in income between these three household groups (see broken lines on chart). The way in which dispersion is reduced between those away from work long term and those away medium term is particularly striking. Though the former group have, on average, only about half the original income of the latter, the two groups end up with a very similar average final income.

As the period of absence from work increases cash benefits play a more and more important part in household gross income, rising from an average of 16 per cent for those away from work short term to 64 per cent for those away from work long term. Those away from work long term receive the highest cash benefits of all the employment status groups, averaging £3 110 per annum in 1982 (Table S), the bulk of which is income-related. Chart 6 illustrates how the various cash benefits alter in importance in the income of these households as the period away from work increases. The structure of the benefit system is such that the longer households are away from work the more important Supplementary Benefit becomes, both in absolute and percentage terms, whilst receipts of Unemployment Benefit,



### Average value of benefits in kind for each employment status category, 1982

TABLE U

	Benefits in kind					Total	Benefits in kind as a percentage of final income (per cent)
	Education	Welfare foods	Health	Housing subsidy	Other		
<b>Average per household (£ per year)</b>							
<b>Employment status of head of household</b>							
Self-employed or employee at work <sup>1</sup> for at least 9 months .. .. .	700	20	530	60	100	1 410	17
Employee away from work <sup>1</sup> for							
—3-6 months .. .. .	730	60	530	80	80	1 480	24
—6-12 months .. .. .	670	60	500	120	40	1 390	28
—more than 12 months .. .. .	900	130	580	120	30	1 770	36
Retired or unoccupied and over pension age	20	—	790	90	10	920	24
Unoccupied and under pension age .. .. .	1 110	60	450	130	40	1 790	35
Average over all households .. .. .	560	30	590	80	70	1 320	20

<sup>1</sup> During the year prior to interview.

which is only payable for a year, decline. Child Benefit is highest in absolute terms for households where the head has been away from work long term since on average these households contain more children.

Direct taxes decline as a percentage of gross income as the period away from work lengthens.

Payment of indirect taxes forms a very similar percentage of disposable income for all three groups, about 30 per cent (Table T), a higher proportion than for the other three employment status groups. The contrast between those away from work short term (30 per cent) and those in employment (25 per cent) is particularly marked, although in absolute terms the difference is only slight. This implies that when a head of household is away from work for a relatively short period, household savings may immediately fall but the level of expenditure may be maintained as far as possible. As a proportion of disposable income the payment of indirect taxes remains about the same as the period away from work increases. However, looking at these taxes and duties individually it is interesting to note that tobacco duty rises sharply as a proportion of disposable income whilst most other indirect taxes fall.

Total benefits in kind are not correlated with the period away from work because the bulk of such benefits are not means-tested (Table U). However, the imputed allocations of welfare foods are on average much larger for those absent long term than for any other of the household groups not only because the numbers of children per household are above average but also because these households are more likely to be entitled to free school meals. Imputed income from the housing subsidy is also high reflecting mainly the substantial proportion of public sector tenants in these groups.

#### *Category C: Head of Household Retired or Unoccupied and Over Minimum NI Pension Age*

This group of households is very similar to, though not identical with, the 1-2 adult retired households groups discussed earlier in this article. The effects of the tax-benefit system are therefore much the same for both groups and so no detailed analysis will be presented in this section. Briefly, original income is low, comprising mainly occupational pensions, which are received by about half of these households, and investment income. Cash benefits, mainly the state retirement pension, form 57 per cent of average gross income. Compared to the other two groups where the head has not worked throughout the previous year (those away from work long term and the unoccupied) retired households pay, on average, a slightly higher proportion of their income in direct taxes. However, they pay, on average, less in indirect taxes than any of the other employment status groups, both in absolute terms and as a proportion of disposable income. Health services comprise 86 per cent of their imputed income from benefits in kind, which in total form 24 per cent of their final income.

#### *Category D: Head of Household Unoccupied and Under Minimum NI Pension Age*

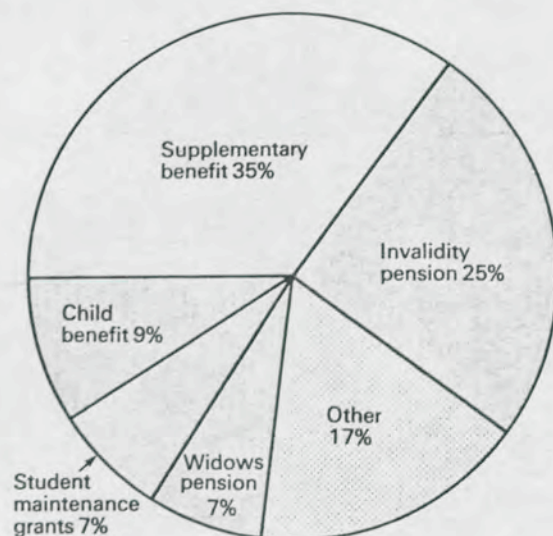
This group comprised 7 per cent of FES responding households in 1982. In these households the head is unable either to work or to seek work for a wide variety of reasons: for example, he/she may be disabled, a lone parent looking after young children or a full-time student. A high proportion (55 per cent) are public sector tenants. Nearly half the heads of these households are women, compared with the proportion for all non-retired households of 14 per cent.

Many of these women are heading one-parent families but a significant proportion are living alone. The age distribution of the heads of households in this group shows an interesting pattern, with concentrations in the under-25 age range (mainly students) and in the 55-65 age range: in fact 38 per cent of heads are between 55 and 65 years of age. Since most are also men, a possible explanation is that a man of this age who becomes unemployed may not consider it worthwhile to seek work and would thus describe himself as unoccupied and out of the labour force. This would tie in with the rather surprisingly young age distribution of those away from work long term (see above).

It is not surprising that original income within this household group is fairly low, averaging £2 360 per annum (Table R) - the main earner in a household may not necessarily be its head (Appendix 2, paragraph 2). *Other* income is larger than in other household groups averaging £415 per annum compared with an average over all households of £80 (Appendix 2, Table 1). Most of this *other* income comprises contributions from individuals outside the household, such as allowances from absent husbands or alimony.

Cash benefits constitute just over half the average gross income of this household group. The types of cash benefit received reflect the diverse composition of the group (Chart 7). Supplementary Benefit plays the major role since most households are on low incomes: it may be recalled that over half of households whose head is unoccupied appear in the lowest quintile group when all households are ranked by original income (Table Q). Other cash benefits are directly linked to the reason the head of household cannot work, for example, invalidity pensions and student maintenance grants. Since many households are lone-parent families or women living alone, child benefits and widows pensions are also important.

CHART 7  
Composition of cash benefits received by households whose head is unoccupied and under pension age, 1982



On average these households pay only 7 per cent of their gross income in direct taxes because most of the cash benefits they receive are non-taxable. Table T shows that their payment of indirect taxes as a proportion of disposable income is higher than the average over all households and that the proportions paid in VAT, duty on tobacco, and intermediate taxes are well above the average for these items. However, because of their expenditure pattern they pay less than average in duties on wines and spirits, and in car tax, vehicle excise duty and duty on hydrocarbon oils.

Households where the head is unoccupied are, on average, the recipients of the highest benefits in kind (Table U). Imputed receipts of education benefit are nearly twice the average for all households and constitute 62 per cent of all such benefits allocated to this household group. The explanation is not that the average number of children per household is higher in this group than in any of the other non-retired household groups – it is lower – but that there are a significant number of households comprising only students in higher education for whom the cost per head to the Exchequer is substantially greater than the cost per school pupil.

## APPENDIX 1

## 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 *National Income and Expenditure Blue Book* to apportioning taxes and benefits to individual households. We can obtain information about the types of household that receive cash benefits and pay direct taxes through surveys such as the Family Expenditure Survey (FES). From the replies respondents give to questions on their expenditure we can impute their payments of indirect taxes, and from information they supply about such factors as their ages and the 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, which are not covered in the FES and which are difficult to apportion to individual households. Indeed, most people would probably not think of these as leading to a reduction in their personal incomes. 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 in any event have sufficient information to make an allocation.

## Family Expenditure Survey

2. The estimates in this article are based mainly on data derived from the FES. The FES is a continuous survey of the expenditure of private households. People living in hotels, lodging houses, and in institutions such as old peoples' homes are excluded. Each adult keeps a full record of payments made during 14 consecutive days and answers questions about hire purchase and other payments. He also gives 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.

3. One of the main purposes of the FES is to yield information on household expenditure patterns to produce the weights used in compiling the index of retail prices. The survey is conducted by the Office of Population Censuses and Surveys on behalf of the Department of Employment who analyse and report on it. The *Family Expenditure Survey Report for 1982*, containing detailed data on household characteristics, income, and expenditure, will be published shortly. Details of the survey method are set out in *Family Expenditure Survey Handbook* by W F F Kemsley, R U Redpath and M Holmes. Both are published by Her Majesty's Stationery Office.

4. The number of households co-operating in the FES in 1982 was 7 428. The response rate was 71.8 per cent.

5. The available evidence suggests that older households, households where the head is self-employed, those without children and higher income households, are less likely to co-operate than others. In addition response in Greater London is noticeably lower than in other areas (see 'Family Expenditure Survey: a study of differential response based on a comparison of the 1971 sample with the census' by W F F Kemsley, *Statistical News* No. 31, November 1975 (HMSO)). It is not practicable at present

to correct for any consequential non-response bias: the results in the article are based on the responses of those households which actually co-operated in the survey. This means that some of the figures differ from those produced by other surveys (see also 'Differential response in the Family Expenditure Survey: the effect on estimates of redistribution of income' by R Harris in *Statistical News* No. 39, November 1977 (HMSO)).

## Unit of analysis

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

7. In classifying the households, adults have been taken as all people aged 16 and over. 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.

8. A *retired* household is defined as one in which the combined income of members who are at least 60, and who describe themselves as retired or unoccupied, amounts to at least half the total gross income of the household; or in which the head is over state pension age, and more than three quarters of the household's income consists of national insurance retirement and similar state pensions, or related supplementary benefit.

9. By no means all retired people are in retired households; about one in three households comprising three or more adults contain retired people, for example, and households comprising one retired and one non-retired adult are often classified as non-retired.

10. The sample households have been classified according to their compositions at the time of the interview; it is particularly important to bear this in mind for households comprising one adult with children - it is likely that many of these households changed their composition at some time during the year.

11. *Economically active* people comprise employees, the self-employed and others not in employment but who are seeking or intending, when able, to seek work. In 1982 there were changes in the FES in the definition relating to economic activity. The effect of these changes is to exclude all those out of employment for more than a year rather than five years. This exclusion applies regardless of the fact that they may still describe themselves as seeking work. Also excluded are those who have not been in paid employment since leaving full-time education unless they have worked within the previous year; certain of the part-time self-employed with very small incomes; and those whose only economic activity is working as mail-order agents or baby-sitters. Therefore figures on economic activity given in this article are not comparable with those given in previous articles in this series.

### Income: redistributive stages

#### 12. Stage one

Original income plus cash benefits = Gross income.

#### Stage two

Gross income minus direct taxes = Disposable income.

#### Stage three

Disposable income minus indirect taxes plus other benefits = Income after all taxes and benefits (final income).

13. The starting point of the analysis is *original income*. This is the annual income in cash and kind 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 and occupational pensions. Employment income is based on the last payment received before the interview or, where different, the amount usually received. Allowance is made for any periods of absence from work through sickness and unemployment in the preceding twelve months, and for bonuses. Income from self-employment is recorded in the FES for a past period. This is brought up to current levels using an index of income from self-employment derived from the National Accounts. Income from interest, dividends and rent is taken as the amount received in the 12 months before the interview. Income from occupational pensions is based on the last payment received.

14. Households living in rent-free dwellings are each assigned an imputed income based upon the rateable value of the dwelling. This is counted as employment income if the tenancy depends on the job.

15. The next stage of the analysis is to add on *cash benefits* to original income to obtain *gross income*. This is slightly different to the 'gross normal weekly income' used in the FES Report, mainly because it excludes the imputed rent of owner-occupiers. Cash benefits are:

#### Age-related

Retirement and old persons' pension, Widows' benefit, Christmas bonus for pensioners.

#### Child-related

Child benefit, Maternity allowance, Maternity grant.

#### Income-related

Unemployment benefit, Family Income Supplement, Supplementary benefit, Rent rebates and rent allowances, Student maintenance awards.

#### Other cash benefits

War pension, Invalidity pension, Non-contributory invalidity pension, Housewives non-contributory invalidity pension, Invalid care allowance, Attendance allowance, Sickness benefit, Industrial injury disablement benefit, Death grant, other benefits.

16. This division involves some arbitrary allocations (for example, most income-related benefits depend on the number of children in the household), and it differs from classifications used elsewhere. It is adopted in the article purely for the purpose of shedding further light on the redistributive effects of cash benefits.

17. 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 rent rebates

and allowances, is based on current rates. The National Accounts (and Table 1 of Appendix 3) include payments made by local authorities to the Department of Health and Social Security in respect of recipients of Supplementary Benefit as 'rent rebates and allowances'. Supplementary Benefit includes all supplementary allowances where they are separately distinguished by respondents.

18. *Direct taxes* are then deducted to give *disposable income*. Direct taxes are:

#### Income tax

Employees' and self-employed contributions to national insurance and national health services.

19. The 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 including tax relief on mortgage interest, but not on life assurance premiums, where administrative arrangements are different.

20. As original income includes some elements not actually received in cash, disposable income as defined here does not correspond exactly to money available for the household to spend. It does however give an indication of the resources which are available to the household, and which influence spending decisions.

21. The order in which the remaining allocated items are presented is to some extent arbitrary.

22. *Indirect taxes on final consumer goods and services* are:

Local authority rates on dwellings (after rebates)  
Duties on beer, wines, spirits, tobacco, oil, betting, etc.  
Value added tax (VAT)  
Customs (import) duties  
Car tax  
Motor vehicle duties  
Driving licences  
Television licences  
Stamp duties

23. These taxes are either levied directly on the consumer (for example domestic rates) or are assumed to be fully incident on the consumer. For example, the amount of VAT which is paid by the household is calculated from the household's total expenditure on goods and services subject to VAT.

24. The figures for *domestic rates* include, as well as local authority rates, charges made by water authorities for water, environmental and sewerage services, although these charges to households in England and Wales are no longer counted as general government receipts in the National Accounts. (In Scotland these payments go to the local authorities and are so counted.) As explained in the article, local authority rates are paid in full by most recipients of supplementary benefit, as the supplementary benefit payments they receive include an allowance for this item. Where ranges are shown (in Tables E, N and T) for the burden of rates (and total indirect taxes), the lower end has been calculated by excluding the rates payments of most SB households, and by subtracting corresponding sums from their gross incomes. For each household where the SB received is less than the total rent and rates bill, however, its gross income and rates payment have been reduced by only a proportion of the SB - the proportion that rates represents of rent and rates combined.

25. VAT and car tax affect the prices of secondhand cars and are therefore assumed to be incident on the purchasers and vendors of such cars. In allocating taxes, expenditures recorded in the FES on alcoholic drink, tobacco, ice cream, soft drinks and confectionery are weighted 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.

26. 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 the current dwelling (estimated from rateable values) and the probability of a household of that type moving in a given year (estimated from the General Household Survey).

27. *Indirect taxes on intermediate goods and services* are:

- Local authority rates on commercial and industrial property
- Motor vehicle duties
- Duties on hydrocarbon oils
- Customs (import) duties
- Stamp duties
- Employers' contributions to national insurance, the National Health Service, the industrial injuries fund and the redundancy payments scheme
- National insurance surcharge.

28. These are taxes that fall on goods and services purchased by industry. Only the elements attributable to the production of subsequent goods and services for final consumption by the UK personal sector are allocated in the article, being assumed to be fully shifted to the consumer. Their allocations between different categories of consumers' expenditure are based on the relation between intermediate production and final consumption using input-output techniques.

29. Finally, we add the effects of *benefits in kind* for which there is a reasonable basis for allocation to households, to obtain *final income*. Benefits in kind are:

- State education
- School meals, milk and other welfare foods
- National Health Service
- Housing subsidy
- Rail travel subsidy
- Option mortgage expenditure
- Life assurance premium relief

30. *Education benefit* is estimated by the Department of Education and Science as the cost per pupil or student in special schools, primary, secondary and direct grant schools, universities, and other further education establishments. The value of the benefit attributed to a household depends on the number of people in the household recorded in the FES as receiving each kind of education (students away from home are not counted).

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

32. Each individual in the FES is allocated a benefit from the *National Health Service* according to the estimated average use made of health services by people of the same age and sex, and according to the total cost of providing those services. The benefit from the maternity services is assigned separately to those households receiving maternity grant.

33. In this article public sector tenants are defined to include the tenants of local authorities, New Town Corporations, the Scottish Special Housing Association (SSHA) and the Northern Ireland Housing Executive (NIHE). The total *housing subsidy* includes the net excess of current expenditure over income on the housing revenue accounts of local authorities; and grants paid to the New Town Corporations, the SSHA, the NIHE and the Housing Corporation. 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 gross rateable value of his dwelling. The grant to the Housing Corporation has been similarly allocated to housing association tenants in the UK. Housing subsidy does not include mortgage interest tax relief, rent rebates and allowances or rate rebates (see paragraphs 19, 15 and 24 respectively).

34. The *rail travel subsidies* allocated are those to British Rail and to London Transport railways (the Underground). They are estimated by calculating the ratio of the cost of the subsidy to consumers' expenditure on rail fares. In allocating the British Rail subsidy the total subsidy paid is apportioned between freight and passenger services by the receipts of British Rail for their freight and passenger business, and then a further apportionment between the personal and the business and other sectors is made. This gives the amount of subsidy attributable to rail travel by the personal sector. In allocating the subsidy to London Transport railways the total subsidy to London Transport is apportioned between tube and bus services by the receipts of these sectors, with an allowance for the use of the Underground for business purposes.

35. *Option mortgages* are those where the building societies (or other bodies) charge a low rate of interest, being compensated for this by payments from central government. The interest payments do not then qualify for tax relief, the scheme being primarily for the benefit of non-taxpayers. The benefit to each household holding an option mortgage is assumed to be in proportion to its last interest payment.

36. Central government makes payments to *life assurance* funds enabling them to reduce their premiums to most policy-holders. The benefit to each household of this expenditure is assumed to be in proportion to its premium payments.

37. It must be emphasised that the analysis in this article provides only a very 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. For example, the lack of data forces us to assume that the incidence of direct taxes falls on the individual from whose income the tax is deducted. This implies that the benefit of tax relief for mortgage interest, for example, accrues directly to the tax payer rather than to some other party, for example, the vendor of the land. It also implies that the working population is not able to pass the cost of the direct tax back to employers through lower profits, or to consumers through higher prices. And, 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. 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.

#### Gini coefficient

38. The Gini coefficient is the most widely used summary measure of the degree of inequality in an income distribution. It can most easily be understood by considering a Lorenz curve of the income distribution, ie, a graph of the cumulative income share against the cumulative household share. The curve representing complete equality of income is thus a diagonal line, as in Diagram A, while complete inequality (with only one recipient of income) is represented by a curve comprising the horizontal axis and the right-hand vertical axis.

39. A more typical Lorenz curve is illustrated in Diagram B. 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. This is the shaded area in Diagram B. Thus a distribution of perfectly equal incomes has a Gini coefficient of zero; as inequality increases (and the Lorenz curve bellies out), so does the Gini coefficient until, with complete inequality, it reaches its maximum value of 1 (or 100 per cent).

#### Previous articles

40. This article is the latest in an annual series. Earlier articles covering the years 1957 to 1981 were published in the following issues of *Economic Trends*: November 1962, February 1964, August 1966, February 1968, 1969, 1970, 1971, 1972, November 1972 and 1973, December 1974, February 1976, December 1976, February 1978, January 1979, 1980, 1981 and 1982, December 1982. The January 1981 article contains a comprehensive account of the changes in treatment over the years. As far as is practicable with the resources available, the Central Statistical Office will provide on request analyses for 1982 on a basis comparable with those for earlier years. Enquiries should be addressed to D Westcott, Branch 8, Central Statistical Office, Great George Street, London SW1P 3AQ, Telephone 01-233 8300.

DIAGRAM A

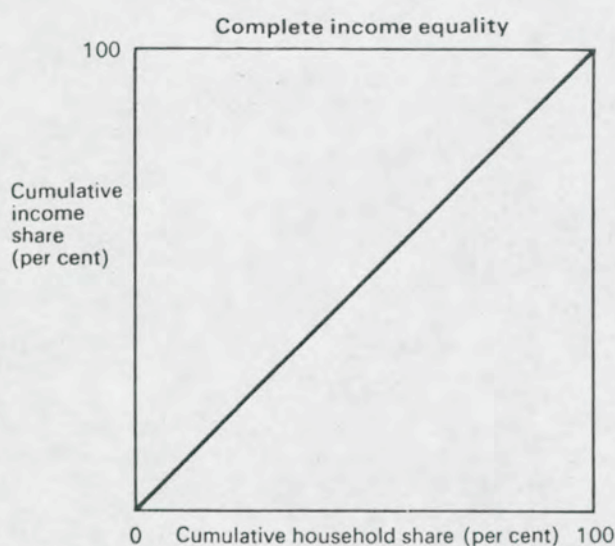
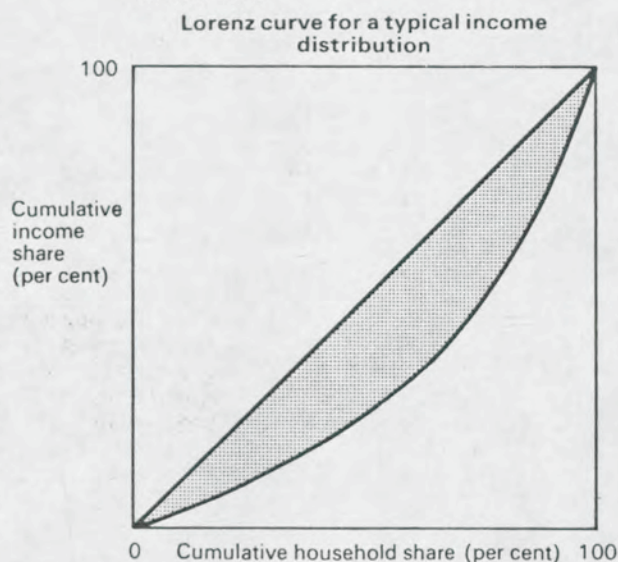


DIAGRAM B



## APPENDIX 2

## Effects of taxes and benefits on households classified by the employment status of the head:

## Notes, definitions and detailed tables.

1. Part II of this year's article examines the way in which taxes and benefits vary according to the *employment status* of the head of the household. The following six categories of households are defined for this analysis:

Households headed by:

Category A: a *self-employed* person, or an *employee* who has been in *paid work* for at least *nine months* out of the twelve months preceding interview;

Category B: an *employee* who has been *away from work* (either through sickness or unemployment)

- (i) for between *three and six months* of the year preceding interview;
- (ii) for between *six and twelve months* of the year preceding interview;
- (iii) for *more than twelve months* prior to interview;

Category C: a *retired* person or an *unoccupied* person over minimum NI pension age;

Category D: an *unoccupied* person under minimum NI pension age.

2. The *head of household* is broadly defined by the FES to be the owner of the accommodation or the person responsible for the rent. However, if this person proves to be the wife of another household member the latter is taken as the head, and so the head will generally be male.

3. An *employee* may be either:

(a) someone who at the time of interview has an arrangement with an employer to work for a wage or salary. He may be on holiday, on strike, or unable to work through illness or injury, as long as he has a job to return to. Also included are those who have an arrangement to work intermittently with the same employer, and casual or seasonal workers and students in full time education if they are working at the time of interview;

or (b) someone out of employment at the time of interview but who is looking for work or about to start work. This includes those out of employment because of sickness or injury who intend to seek work or are about to start work as soon as they are able. People may be classified as 'employees out of employment' for a period of up to 5 years, after which they are regarded as unoccupied.

4. An employee may have been *away from work* for part or the whole of the year preceding interview due to sickness, maternity leave or unemployment. The period for which he has been away from work is calculated as the total number of weeks for which he did not receive employment income during the 12 months preceding interview. Thus an employee who is in paid work at the time of interview will still be classified in Category B above if he has spent more than

three months of the year prior to interview out of paid employment. Some heads of households, whilst still regarded as employees for the purposes of this analysis because they describe themselves as seeking work, may have been out of paid employment for more than 12 months. This group – Category B (iii) – will of course contain no heads currently working or temporarily away from work through sickness or injury.

5. A *self-employed* head of household is someone who works on their own account rather than receive a wage or salary from an employer, and this includes those who are temporarily sick who would be working as a self-employed person if they were well. In the FES, a person is only defined as self-employed if this is their employment status at the time of interview. In practice, few heads who have experienced long periods of absence from work in the recent past will still be self-employed when interviewed. In many respects this category of households is very similar to those headed by employees who have worked for at least nine months of the year and so the two types have been combined as Category A.

6. The *retired* are those who have retired from their full-time occupation, are of the appropriate retirement age for that occupation and are not seeking further employment of any kind. In practice the definition depends on whether or not the respondent describes himself as retired.

7. The term *unoccupied* is used to describe those who have never been in paid employment or who have been away from work for five years or more, and are not seeking employment. This includes people of independent means; women engaged in unpaid domestic duties; students over the age of 16 in full-time education not employed at the time of interview; and people out of paid employment for more than five years even if they claim to be seeking work.

## Detailed tables

8. Table 1 shows in detail the taxes and benefits received by each employment status group.

9. Table 2 presents the results of carrying out quantile analysis within the group of households whose head has been in employment/self-employment for at least nine months of the preceding year. In part (a) of the table, households are ranked by their original income and the percentage shares of each quintile group at each stage of the redistributive process are shown. In part (b) households have been re-ranked and re-grouped into quintiles at each stage of the analysis. Thus (a) shows how each quintile group, based on original income, has fared as a result of the tax-benefit system whereas (b) shows how the distribution of income within this category of households as a whole has altered.

10. As discussed in the text of the article (page 94), great care must be taken in interpreting the results in Table 2 since *household* income before and after re-distribution is strongly related to the number of economically active persons in the household. This is illustrated in Table 2 (c) which shows how the average number of economically active household members increases as household income increases.



## Average incomes, taxes and benefits, 1982

By employment status category

TABLE 1

	£ per year						
	Employment status of head of household						
	Self-employed or employee at work <sup>2</sup> for at least 9 months	Employee away from work <sup>2</sup> for –			Retired or unoccupied and over pension age	Unoccupied and under pension age	Average over all house- holds
	3–6 months	6–12 months	more than 12 months				
Number of households in the sample ..	4 474	127	218	218	1 887	504	7 428
Original income							
Earnings of main earner .. .. .	7 842	4 421	2 367	937	593	1 163	5 125
Other earnings .. .. .	2 394	1 655	887	211	60	270	1 536
Occupational pensions, annuities .. .. .	78	342	214	287	741	258	273
Investment income .. .. .	363	149	182	261	429	258	361
Other income .. .. .	69	72	98	23	24	415	80
Total .. .. .	10 745	6 640	3 748	1 719	1 848	2 365	7 376
Cash benefits							
Age-related							
Retirement and old persons' pension .. .. .	107	54	52	23	1 937	42	562
Widows' pension .. .. .	30	42	28	—	13	183	35
Christmas bonus for pensioners .. .. .	1	—	1	1	13	3	4
Child-related							
Child benefit .. .. .	263	281	289	361	7	234	200
Maternity allowance .. .. .	13	10	2	1	—	4	8
Maternity grant .. .. .	1	2	1	2	—	1	1
Income-related							
Supplementary benefit .. .. .	48	241	630	1 955	245	925	234
Unemployment benefit/TOPS etc, awards .. .. .	53	411	807	482	16	95	87
Rent rebates and allowances .. .. .	15	48	69	38	69	75	36
Student maintenance grants .. .. .	19	24	3	28	2	185	26
Family income supplement .. .. .	7	8	8	—	1	2	5
Other							
Invalidity pension and allowance .. .. .	10	33	105	115	35	670	68
Sickness, Industrial injury benefit .. .. .	25	75	96	33	4	53	25
Attendance allowance .. .. .	8	—	4	29	21	25	13
Disablement and war disability pension .. .. .	6	4	—	—	18	22	10
Industrial injury disablement pension .. .. .	7	8	2	25	20	37	13
Mobility allowance .. .. .	5	—	4	21	5	53	9
Non-contributory invalidity pensions .. .. .	3	—	4	—	10	26	6
Miscellaneous cash benefits .. .. .	4	14	24	—	23	12	10
Total .. .. .	625	1 256	2 127	3 114	2 441	2 647	1 351
Gross income .. .. .	11 370	7 896	5 876	4 833	4 289	5 012	8 727
Direct taxes							
Income tax .. .. .	1 870	817	367	249	364	263	1 269
National insurance contributions .. .. .	583	366	211	68	38	73	380
Total .. .. .	2 453	1 183	577	317	402	336	1 649
Disposable income .. .. .	8 917	6 713	5 298	4 516	3 886	4 676	7 078
Indirect taxes							
Domestic rates (net of rebates) <sup>1</sup> .. .. .	331	274	251	250	241	252	297
Taxes on final goods and services							
VAT .. .. .	632	565	416	331	224	363	494
Duty on tobacco .. .. .	190	258	257	268	83	183	168
Duty on beer .. .. .	92	97	90	61	27	46	71
Duty on wines .. .. .	29	16	14	8	10	13	22
Duty on spirits .. .. .	67	52	43	37	38	32	55
Duty on hydrocarbon oils .. .. .	152	132	97	54	39	65	113
Car tax .. .. .	23	16	14	7	5	7	17
Vehicle excise duty .. .. .	60	44	44	24	23	24	46
Television licences .. .. .	35	30	30	24	28	26	32
Stamp duty on house purchase .. .. .	12	4	2	1	2	2	8
Customs' duties .. .. .	35	32	23	19	14	21	28
Other .. .. .	31	29	31	22	16	19	26
Intermediate taxes							
Commercial and industrial rates .. .. .	167	155	113	98	76	108	136
Employers' NI contributions .. .. .	217	201	145	125	96	140	176
Duty on hydrocarbon oils .. .. .	70	67	49	45	32	48	57
Vehicle excise duty .. .. .	22	20	15	14	9	15	18
Other .. .. .	25	23	17	15	12	16	21
Total indirect taxes .. .. .	2 188	2 018	1 654	1 401	976	1 379	1 783
Benefits in kind							
Education .. .. .	696	732	666	899	24	1 110	559
Welfare foods .. .. .	24	62	63	133	2	64	26
National Health Service .. .. .	535	527	501	582	786	450	593
Housing subsidy .. .. .	57	81	117	123	93	130	75
Rail travel subsidy .. .. .	36	19	8	12	6	21	25
Option mortgage scheme .. .. .	21	35	16	11	1	6	15
Life assurance premium relief .. .. .	40	22	16	11	7	12	28
Total .. .. .	1 409	1 478	1 387	1 771	918	1 792	1 322
Final income .. .. .	8 138	6 173	5 031	4 886	3 829	5 088	6 616

<sup>1</sup> Together with water, etc, charges.<sup>2</sup> During the year prior to interview.

Households whose head is self-employed or an employee at work<sup>1</sup> for at least 9 months, 1982

TABLE 2

(a)										Percentages of income for each quintile group of households ranked by original income			
Quintile group										Original income	Gross income	Disposable income	Final income
Bottom	..	..	..	..	..	..	..	..	..	8	9	10	11
2nd	..	..	..	..	..	..	..	..	..	14	14	14	15
3rd	..	..	..	..	..	..	..	..	..	18	18	18	18
4th	..	..	..	..	..	..	..	..	..	23	23	23	22
Top	..	..	..	..	..	..	..	..	..	37	36	35	34
Total	..	..	..	..	..	..	..	..	..	100	100	100	100

(b)										Percentages of income for each quintile group of households re-ranked at each stage			
Quintile group										Original income	Gross income	Disposable income	Final income
Bottom	..	..	..	..	..	..	..	..	..	8	9	9	9
2nd	..	..	..	..	..	..	..	..	..	14	14	14	14
3rd	..	..	..	..	..	..	..	..	..	18	18	18	18
4th	..	..	..	..	..	..	..	..	..	23	23	23	23
Top	..	..	..	..	..	..	..	..	..	37	36	36	36
Total	..	..	..	..	..	..	..	..	..	100	100	100	100
Gini coefficient (per cent)	..	..	..	..	..	..	..	..	..	29.2	27.0	26.2	27.5

(c)										Average number of economically active people per household in each quintile group of households re-ranked at each stage			
Quintile group										Original income	Gross income	Disposable income	Final income
Bottom	..	..	..	..	..	..	..	..	..	1.2	1.2	1.2	1.2
2nd	..	..	..	..	..	..	..	..	..	1.5	1.5	1.5	1.6
3rd	..	..	..	..	..	..	..	..	..	1.8	1.8	1.8	1.7
4th	..	..	..	..	..	..	..	..	..	2.0	2.0	2.0	2.0
Top	..	..	..	..	..	..	..	..	..	2.4	2.4	2.4	2.3
Overall average	..	..	..	..	..	..	..	..	..	1.8	1.8	1.8	1.8

<sup>1</sup> During the year prior to interview.

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## General government expenditure in 1982

TABLE 1

	£ million	Percentage of total expenditure
<b>Allocated expenditure</b>		
<b>Allocated cash benefits<sup>1</sup></b>		
<b>Social security benefits</b>		
<b>National Insurance (contributory)</b>		
Retirement .. .. .	13 400	10.5
Widows and guardians .. .. .	740	0.6
Unemployment .. .. .	1 580	1.2
Sickness .. .. .	580	0.5
Invalidity .. .. .	1 640	1.3
Maternity .. .. .	160	0.1
Disablement .. .. .	350	0.3
Other .. .. .	220	0.2
<b>Non-contributory</b>		
Child benefit .. .. .	3 580	2.8
Supplementary benefit .. .. .	6 320	4.9
War pension .. .. .	480	0.4
Other .. .. .	1 200	0.9
Student maintenance grants .. .. .	600	0.6
Rent rebates and rent allowances .. .. .	750	0.6
<b>Allocated benefits in kind<sup>1</sup></b>		
Health services .. .. .	13 120	10.2
Education .. .. .	13 000	10.2
School meals, milk, welfare foods .. .. .	530	0.4
Option mortgage scheme .. .. .	310	0.2
Housing subsidy .. .. .	1 750	1.4
Rail travel subsidy .. .. .	590	0.5
	60 900	47.6
<b>Unallocated expenditure</b>		
<b>Other current expenditure on social, environmental and protective services</b>		
<b>Social services</b>		
Social security benefits administration .. .. .	1 400	1.1
Personal social services .. .. .	2 700	2.1
Other .. .. .	40	—
<b>Environmental services</b>		
Housing .. .. .	210	0.2
Water, sewerage, land drainage and public health .. .. .	1 250	1.0
Parks, etc .. .. .	740	0.6
Miscellaneous local authority services .. .. .	900	0.7
Libraries, museums, and arts .. .. .	620	0.5
<b>Protective services</b>		
Police .. .. .	2 790	2.2
Parliament, courts and prisons .. .. .	1 450	1.1
Fire services .. .. .	570	0.4
	12 660	9.9
<b>Capital expenditure on social, environmental and protective services</b>		
<b>Social services</b> .. .. .	1 630	1.3
<b>Environmental services</b>		
Housing .. .. .	2 470	1.9
Other .. .. .	1 280	1.0
<b>Protective services</b> .. .. .	270	0.2
	5,640	4.4
<b>Other current expenditure</b>		
Defence and external relations .. .. .	16 320	12.7
Roads, transport and communications .. .. .	2 950	2.3
Industry, trade, agriculture, research and employment .. .. .	6 160	4.8
Other .. .. .	2 360	1.8
	27 780	21.7
<b>Other capital expenditure</b> .. .. .	4 590	3.6
<b>Debt interest</b> .. .. .	14 260	11.1
<b>Non-trading capital consumption</b> .. .. .	2 210	1.7
<b>Total expenditure</b> .. .. .	128 040	100.0

<sup>1</sup> Including benefits to people not living in private households.Source: *National Income and Expenditure, 1983 edition, Table 9.4*

## Financing of general government expenditure in 1982

TABLE 2

	£ million	Percentage of total financing
<b>Allocated financing</b>		
<b>Allocated taxes<sup>1</sup></b>		
<b>Direct taxes</b>		
Income tax .. .. .	30 270	23.6
Employers' and self-employed NI contributions .. .. .	8 590	6.7
<b>Indirect taxes</b>		
Domestic rates (net of rebates) .. .. .	5 650	4.4
<b>Taxes on final goods and services</b>		
VAT .. .. .	11 540	9.0
Duty on beer .. .. .	1 460	1.1
Duty on wines and spirits .. .. .	1 690	1.3
Duty on tobacco .. .. .	3 520	2.8
Duty on hydrocarbon oils .. .. .	2 530	2.0
Car tax, vehicle excise duty and driving licences .. .. .	1 290	1.0
Other .. .. .	1 430	1.1
<b>Taxes on intermediate goods and services</b>		
Employers' NI contributions <sup>2</sup> .. .. .	3 030	2.4
Commercial and industrial rates .. .. .	2 960	2.3
Duty on hydrocarbon oils .. .. .	1 320	1.0
National insurance surcharge .. .. .	900	0.7
Motor vehicle duty and driving licences .. .. .	430	0.3
Other .. .. .	450	0.4
	<b>77 060</b>	<b>60.2</b>
<b>Unallocated financing</b>		
<b>Unallocated taxes</b>		
<b>Direct taxes</b>		
Employers' NI contributions not allocated .. .. .	6 450	5.0
<b>Indirect taxes</b>		
Commercial and industrial rates not allocated .. .. .	3 580	2.8
<b>Taxes on final goods and services not allocated</b>		
VAT .. .. .	2 710	2.1
Duty on hydrocarbon oils .. .. .	1 240	1.0
National insurance surcharge .. .. .	1 890	1.5
Other .. .. .	2 490	1.9
<b>Other taxes</b>		
Corporation tax .. .. .	4 990	3.9
Petroleum revenue tax <sup>3</sup> .. .. .	5 040	3.9
Taxes on capital .. .. .	1 640	1.3
Other receipts <sup>4</sup> .. .. .	14 780	11.5
Government borrowing requirement .. .. .	6 180	4.8
<b>Total financing</b> .. .. .	<b>128 040</b>	<b>100.0</b>

<sup>1</sup> Including taxes paid by people not living in private households.<sup>2</sup> Not allocated as a tax on consumers' expenditure in the National Accounts.<sup>3</sup> Including supplementary petroleum duty.<sup>4</sup> Receipts of rent, royalties and licence fees on oil and gas production, interest, dividends, trading income and miscellaneous transactions (net).Source: *National Income and Expenditure, 1983 edition*, Table 9.1.

## Average incomes, taxes and benefits, 1982

By decile groups of households ranked by original and disposable incomes

TABLE 3

	£ per year											Average over all decile groups
	Decile group											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
<b>(i) Ranked by original income</b>												
<b>All households</b>												
Decile points (£)		38	660	2 457	4 949	6 717	8 302	9 974	12 124	15 227		
Number of households in the sample	743	743	742	743	743	743	743	742	743	743	743	7 428
Original income	4	288	1 416	3 819	5 874	7 511	9 122	10 950	13 511	21 260	7 376	
Direct benefits in cash												
Age-related	1 084	1 605	1 485	740	348	216	183	134	139	85	602	
Child-related	158	48	96	197	245	307	293	280	235	234	209	
Income-related	1 362	619	523	430	225	169	167	117	160	102	388	
Other	281	214	273	189	148	115	83	106	67	50	153	
Gross income	2 890	2 774	3 793	5 375	6 840	8 317	9 849	11 587	14 111	21 730	8 727	
Direct taxes												
Direct taxes	—	19	172	683	1 245	1 616	2 031	2 523	3 070	5 130	1 649	
Disposable income	2 890	2 755	3 622	4 692	5 595	6 702	7 818	9 064	11 041	16 600	7 078	
Domestic rates (net of rebates) <sup>1</sup>												
Domestic rates (net of rebates) <sup>1</sup>	219	192	239	264	280	301	322	342	355	455	297	
Taxes on final goods and services												
Taxes on final goods and services	366	351	588	810	972	1 121	1 276	1 433	1 661	2 215	1 079	
Intermediate taxes												
Intermediate taxes	176	171	241	308	347	407	466	534	607	813	407	
Benefits in kind												
Education	397	190	304	572	593	651	672	752	718	742	559	
National health service	652	705	666	562	577	573	559	530	553	553	593	
Welfare foods	52	17	28	34	25	25	22	21	21	18	26	
Housing subsidy	152	92	87	84	90	66	64	43	49	26	75	
Other allocated benefits	12	10	20	43	45	75	78	98	103	197	68	
Final income	3 394	3 054	3 659	4 605	5 325	6 261	7 149	8 199	9 862	14 653	6 616	
<b>(ii) Ranked by disposable income</b>												
<b>All households</b>												
Decile points (£)		2 443	3 279	4 186	5 211	6 236	7 292	8 484	10 013	12 355		
Number of households in the sample	743	743	742	743	743	743	742	743	743	743	743	7 428
Original income	353	825	1 872	3 819	5 610	7 313	8 997	10 764	13 356	20 843	7 376	
Direct benefits in cash												
Age-related	1 163	1 294	1 181	752	455	340	240	212	194	188	602	
Child-related	26	62	119	205	277	295	303	286	255	266	209	
Income-related	470	683	679	508	374	290	216	225	220	211	388	
Other	46	146	214	201	214	170	153	153	127	103	153	
Gross income	2 059	3 009	4 065	5 485	6 930	8 407	9 909	11 640	14 152	21 610	8 727	
Direct taxes												
Direct taxes	102	168	352	802	1 203	1 646	2 014	2 433	3 088	4 680	1 649	
Disposable income	1 957	2 841	3 713	4 682	5 727	6 762	7 895	9 207	11 064	16 930	7 078	
Domestic rates (net of rebates) <sup>1</sup>												
Domestic rates (net of rebates) <sup>1</sup>	179	219	244	260	285	302	323	345	360	452	297	
Taxes on final goods and services												
Taxes on final goods and services	271	388	592	761	982	1 142	1 305	1 457	1 697	2 197	1 079	
Intermediate taxes												
Intermediate taxes	142	184	238	285	358	420	472	539	624	809	407	
Benefits in kind												
Education	149	173	276	489	640	704	716	795	794	855	559	
National health service	540	609	639	612	591	589	583	570	575	621	593	
Welfare foods	6	19	31	36	41	33	30	20	23	24	26	
Housing subsidy	79	107	115	103	89	70	59	52	53	25	75	
Other allocated benefits	11	14	25	33	61	70	76	93	104	192	68	
Final income	2 150	2 972	3 725	4 650	5 525	6 364	7 259	8 397	9 931	15 188	6 616	

<sup>1</sup> Together with water, etc, charges.

## Average incomes, taxes and benefits, 1982

By quintile groups of original income within household type

TABLE 4

	£ per year					Average over all quintile groups
	Quintile group					
	1st	2nd	3rd	4th	5th	
<b>(i) 1 adult retired</b>						
Quintile points (£)			83	400	1 071	
Number of households in the sample		376 <sup>2</sup>	187	188	188	939
Original income		15	214	658	3 023	786
Direct benefits in cash						
Age-related		1 514	1 581	1 527	1 520	1 531
Child-related		—	—	—	—	—
Income-related		682	307	155	31	372
Other		103	38	93	60	80
Gross income		2 315	2 140	2 433	4 633	2 768
Direct taxes		1	18	64	761	169
Disposable income		2 314	2 122	2 369	3 872	2 599
Domestic rates (net of rebates) <sup>1</sup>		206	171	191	294	214
Taxes on final goods and services		171	201	252	472	253
Intermediate taxes		122	124	141	218	145
Benefits in kind						
Education		—	—	—	—	—
National health service		671	671	554	540	621
Welfare foods		—	—	—	—	—
Housing subsidy		137	83	84	51	98
Other allocated benefits		3	4	9	8	6
Final income		2 627	2 383	2 432	3 488	2 712
<b>(ii) 2 adults retired</b>						
Quintile points (£)		68	478	1 174	2 686	
Number of households in the sample	149	148	151	149	149	746
Original income	12	235	792	1 774	5 705	1 703
Direct benefits in cash						
Age-related	2 329	2 469	2 435	2 449	2 285	2 394
Child-related	—	—	—	—	—	—
Income-related	564	350	198	112	22	249
Other	390	273	301	295	134	279
Gross income	3 295	3 327	3 726	4 630	8 146	4 624
Direct taxes	3	15	63	249	1 364	338
Disposable income	3 293	3 312	3 663	4 382	6 782	4 286
Domestic rates (net of rebates) <sup>1</sup>	219	201	207	284	391	260
Taxes on final goods and services	407	411	580	620	933	590
Intermediate taxes	194	198	236	255	384	253
Benefits in kind						
Education	—	15	—	—	29	9
National health service	951	957	935	925	831	920
Welfare foods	—	—	—	—	—	—
Housing subsidy	139	88	91	93	29	88
Other allocated benefits	13	9	8	11	22	13
Final income	3 575	3 571	3 674	4 251	5 985	4 211

<sup>1</sup> Together with water, etc, charges.<sup>2</sup> More than a fifth of these households had no original income, so the bottom group is undefined.

## Average incomes, taxes and benefits, 1982

By quintile groups of original income within household type

TABLE 4 (continued)

	£ per year					Average over all quintile groups
	Quintile group					
	1st	2nd	3rd	4th	5th	
<b>(iii) 1 adult non-retired</b>						
Quintile points (£)		901	3 629	5 746	8 126	
Number of households in the sample	140	140	141	140	140	701
Original income	171	2 297	4 733	6 842	11 382	5 084
Direct benefits in cash						
Age-related	354	602	218	73	17	253
Child-related	2	—	—	—	3	1
Income-related	1 179	230	86	2	32	305
Other	339	74	39	28	36	103
Gross income	2 044	3 203	5 076	6 945	11 469	5 746
Direct taxes	14	409	1 114	1 793	2 995	1 265
Disposable income	2 030	2 794	3 962	5 152	8 474	4 482
Domestic rates (net of rebates) <sup>1</sup>	178	193	245	266	326	242
Taxes on final goods and services	352	489	677	848	1 215	716
Intermediate taxes	162	194	239	299	418	263
Benefits in kind						
Education	456	221	—	—	31	141
National health service	194	210	175	156	151	177
Welfare foods	1	—	—	—	—	—
Housing subsidy	101	61	78	68	29	68
Other allocated benefits	18	21	33	48	103	45
Final income	2 107	2 429	3 087	4 010	6 829	3 692
<b>(iv) 2 adults non-retired</b>						
Quintile points (£)		4 867	7 775	10 269	13 472	
Number of households in the sample	299	300	299	300	299	1 497
Original income	2 322	6 337	8 918	11 802	17 799	9 435
Direct benefits in cash						
Age-related	806	382	226	90	82	317
Child-related	7	3	2	3	4	4
Income-related	797	156	59	53	12	215
Other	428	152	87	58	35	152
Gross income	4 360	7 030	9 292	12 005	17 932	10 123
Direct taxes	341	1 351	2 020	2 809	4 328	2 170
Disposable income	4 019	5 679	7 272	9 196	13 603	7 953
Domestic rates (net of rebates) <sup>1</sup>	229	283	300	322	409	309
Taxes on final goods and services	783	1 005	1 178	1 386	1 743	1 219
Intermediate taxes	279	325	410	506	646	433
Benefits in kind						
Education	241	81	8	27	—	71
National health service	496	446	385	335	336	400
Welfare foods	1	—	—	—	—	—
Housing subsidy	101	68	69	41	19	59
Other allocated benefits	34	51	71	105	173	87
Final income	3 599	4 713	5 917	7 490	11 333	6 610

<sup>1</sup> Together with water, etc, charges.



## Average incomes, taxes and benefits, 1982

By quintile groups of original income within household type

TABLE 4 (continued)

	£ per year					Average over all quintile groups
	Quintile group					
	1st	2nd	3rd	4th	5th	
<b>(v) 3 or more adults with no children</b>						
Quintile points (£)		6,777	10 056	13 396	16 968	
Number of households in the sample	169	168	169	168	169	843
Original income	3 735	8 462	11 805	14 944	22 166	12 224
Direct benefits in cash						
Age-related	1 334	543	369	107	181	507
Child-related	36	64	43	63	53	52
Income-related	1 080	553	335	304	205	496
Other	745	337	272	88	49	298
Gross income	6 931	9 959	12 824	15 506	22 653	13 576
Direct taxes	665	1 762	2 714	3 464	5 542	2 830
Disposable income	6 266	8 197	10 110	12 042	17 111	10 747
Domestic rates (net of rebates) <sup>1</sup>	259	311	318	358	461	341
Taxes on final goods and services	1 237	1 498	1 901	2 042	2 716	1 879
Intermediate taxes	421	495	610	688	953	633
Benefits in kind						
Education	781	530	391	700	592	599
National health service	908	621	641	570	623	673
Welfare foods	4	5	2	2	3	3
Housing subsidy	74	88	101	53	37	71
Other allocated benefits	39	58	81	111	251	108
Final income	6 154	7 195	8 498	10 390	14 487	9 346
<b>(vi) 1 adult with children</b>						
Quintile points (£)		205		1 839	4 247	
Number of households in the sample		84 <sup>2</sup>	41	42	42	209
Original income		15	867	2 998	7 017	2 189
Direct benefits in cash						
Age-related		140	210	145	—	127
Child-related		548	557	614	542	562
Income-related		2 274	1 645	787	155	1 426
Other		115	10	19	16	55
Gross income		3 091	3 288	4 564	7 730	4 358
Direct taxes		—	11	279	1 297	319
Disposable income		3 091	3 277	4 285	6 433	4 039
Domestic rates (net of rebates) <sup>1</sup>		278	271	213	284	265
Taxes on final goods and services		387	406	479	855	503
Intermediate taxes		208	219	255	351	248
Benefits in kind						
Education		1 077	1 253	1 323	1 211	1 188
National health service		464	418	422	318	417
Welfare foods		149	210	173	84	153
Housing subsidy		238	113	188	88	173
Other allocated benefits		14	35	36	47	29
Final income		4 162	4 411	5 478	6 691	4 984

<sup>1</sup> Together with water, etc, charges.<sup>2</sup> More than a fifth of these households had no original income, so the bottom group is undefined.

## Average incomes, taxes and benefits, 1982

By quintile groups of original income within household type

TABLE 4 (continued)

	£ per year					Average over all quintile groups
	Quintile group					
	1st	2nd	3rd	4th	5th	
<b>(vii) 2 adults, 1 child</b>						
Quintile points (£)		5 012	7 082	9 347	12 167	
Number of households in the sample ..	125	125	126	125	125	626
Original income .. .. .	2 480	6 215	8 183	10 597	17 842	9 062
Direct benefits in cash						
Age-related .. .. .	65	80	34	24	16	44
Child-related .. .. .	327	369	358	322	323	340
Income-related .. .. .	1 385	198	89	55	18	349
Other .. .. .	186	64	70	31	55	81
Gross income .. .. .	4 443	6 926	8 735	11 028	18 255	9 876
Direct taxes .. .. .	351	1 270	1 745	2 294	4 309	1 994
Disposable income .. .. .	4 092	5 656	6 990	8 734	13 946	7 882
Domestic rates (net of rebates) <sup>1</sup> ..	243	272	312	344	423	319
Taxes on final goods and services ..	762	1 030	1 179	1 472	1 662	1 221
Intermediate taxes .. .. .	292	366	430	575	652	463
Benefits in kind						
Education .. .. .	568	365	385	495	486	460
National health service .. .. .	595	707	680	612	567	632
Welfare foods .. .. .	43	17	14	13	18	21
Housing subsidy .. .. .	112	76	52	21	10	54
Other allocated benefits .. .. .	62	66	93	136	146	101
Final income .. .. .	4 176	5 221	6 294	7 619	12 437	7 148
<b>(viii) 2 adults, 2 children</b>						
Quintile points (£)		5 827	7 754	9 631	11 981	
Number of households in the sample ..	179	180	179	180	179	897
Original income .. .. .	3 164	6 864	8 656	10 646	16 251	9 115
Direct benefits in cash						
Age-related .. .. .	54	—	—	—	—	11
Child-related .. .. .	563	579	575	567	557	568
Income-related .. .. .	1 069	45	49	14	1	235
Other .. .. .	160	51	26	35	15	57
Gross income .. .. .	5 010	7 539	9 306	11 262	16 824	9 987
Direct taxes .. .. .	492	1 478	1 802	2 384	3 849	2 001
Disposable income .. .. .	4 518	6 061	7 504	8 877	12 976	7 986
Domestic rates (net of rebates) <sup>1</sup> ..	254	304	327	371	442	340
Taxes on final goods and services ..	816	1 004	1 151	1 296	1 579	1 169
Intermediate taxes .. .. .	299	392	464	522	681	472
Benefits in kind						
Education .. .. .	1 082	951	984	1 227	1 147	1 078
National health service .. .. .	698	700	672	598	598	653
Welfare foods .. .. .	101	37	41	50	44	55
Housing subsidy .. .. .	112	67	31	35	13	52
Other allocated benefits .. .. .	51	76	75	99	150	90
Final income .. .. .	5 193	6 192	7 367	8 698	12 225	7 934

<sup>1</sup> Together with water, etc, charges.

## Average incomes, taxes and benefits, 1982

By quintile groups of original income within household type

TABLE 4 (continued)

	£ per year					Average over all quintile groups
	Quintile group					
	1st	2nd	3rd	4th	5th	
<b>(ix) 2 adults, 3 or more children</b>						
Quintile points (£)		3 570	6 711	8 702	11 115	
Number of households in the sample	75	75	75	75	75	375
Original income	791	5 255	7 718	9 816	17 598	8 236
Direct benefits in cash						
Age-related	17	—	—	—	—	3
Child-related	1 021	926	896	884	916	929
Income-related	2 691	396	122	86	28	665
Other	448	201	52	33	44	156
Gross income	4 968	6 779	8 789	10 820	18 586	9 988
Direct taxes	51	1 088	1 602	2 218	4 296	1 851
Disposable income	4 917	5 691	7 186	8 602	14 290	8 137
Domestic rates (net of rebates) <sup>1</sup>	241	277	302	368	481	334
Taxes on final goods and services	797	951	1 290	1 214	1 556	1 162
Intermediate taxes	333	375	490	525	782	501
Benefits in kind						
Education	2 417	2 154	2 147	1 965	2 153	2 167
National health service	864	965	865	833	760	857
Welfare foods	340	163	115	62	89	154
Housing subsidy	155	182	64	97	27	105
Other allocated benefits	38	68	89	76	173	89
Final income	7 359	7 620	8 385	9 528	14 674	9 513
<b>(x) 3 or more adults, with children</b>						
Quintile points (£)		6 721	9 756	12 547	16 027	
Number of households in the sample	119	119	119	119	119	595
Original income	3 539	8 365	11 085	14 172	24 951	12 422
Direct benefits in cash						
Age-related	250	153	155	234	73	173
Child-related	605	530	522	498	507	532
Income-related	1 958	630	429	280	179	695
Other	576	151	150	78	116	214
Gross income	6 928	9 828	12 342	15 261	25 826	14 037
Direct taxes	497	1 633	2 351	3 219	5 018	2 544
Disposable income	6 431	8 195	9 991	12 042	20 808	11 494
Domestic rates (net of rebates) <sup>1</sup>	276	322	334	363	442	347
Taxes on final goods and services	1 219	1 558	1 554	2 095	2 600	1 805
Intermediate taxes	452	561	594	715	871	638
Benefits in kind						
Education	2 201	1 846	1 931	1 685	1 750	1 882
National health service	815	722	752	779	756	765
Welfare foods	153	48	50	45	44	68
Housing subsidy	116	100	76	78	43	83
Other allocated benefits	51	55	97	82	169	91
Final income	7 820	8 526	10 415	11 538	19 658	11 591

<sup>1</sup> Together with water, etc, charges.

## Average incomes, taxes and benefits, 1982

By decile groups of households ranked by original income

TABLE 5

	£ per year										Average over all decile groups	
	Decile groups											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
Decile points (£)		38	660	2 457	4 949	6 717	8 302	9 974	12 124	15 227		
Number of households in the sample	743	743	742	743	743	743	743	743	742	743	743	7 428
<b>Original income</b>												
Earnings of main earner	—	38	459	2 624	4 727	6 111	7 135	7 968	8 973	13 217	5 125	
Other earnings	—	1	17	159	384	877	1 451	2 319	3 811	6 338	1 536	
Occupational pensions, annuities	—	126	552	536	432	232	177	233	199	248	273	
Investment income	3	103	294	343	264	224	280	363	412	1 321	361	
Other income	—	19	95	157	67	67	79	68	116	136	80	
Total	4	288	1 416	3 819	5 874	7 511	9 122	10 950	13 511	21 260	7 376	
<b>Cash benefits</b>												
<b>Age-related</b>												
Retirement and old persons' pension	1 036	1 543	1 415	663	306	184	164	114	117	81	562	
Widows' pension	41	51	60	72	39	31	18	18	21	4	35	
Christmas bonus for pensioners	8	11	10	5	3	1	1	1	1	1	4	
<b>Child-related</b>												
Child benefit	157	47	94	189	227	287	279	268	225	228	200	
Maternity allowance	1	—	1	7	16	19	13	11	9	5	8	
Maternity grant	1	—	—	1	2	2	2	1	1	1	1	
<b>Income-related</b>												
Supplementary benefit	1 187	393	263	172	84	56	68	34	55	26	234	
Unemployment benefit/TOPS, etc, awards	76	79	135	142	94	87	79	66	66	48	87	
Rent rebates and allowances	60	107	82	58	29	12	5	4	3	—	36	
Student maintenance grants	40	40	33	28	14	13	15	13	36	27	26	
Family income supplement	—	—	10	30	4	1	2	—	—	—	5	
<b>Other</b>												
Invalidity pension and allowance	157	117	145	97	50	51	22	26	9	1	68	
Sickness, industrial injury benefit	9	17	18	35	40	29	26	22	26	26	25	
Attendance allowance	27	23	23	5	14	4	5	15	9	6	13	
Disablement and war disability pension	9	6	32	11	3	9	5	9	10	3	10	
Industrial injury disablement pension	30	21	24	7	13	3	4	15	3	7	13	
Mobility allowance	14	9	9	6	15	7	7	8	8	3	9	
Non-contributory invalidity pensions	8	10	15	5	7	2	8	2	1	4	6	
Miscellaneous cash benefits	28	11	9	23	5	8	7	9	—	1	10	
Total	2 886	2 486	2 377	1 556	967	807	726	637	600	471	1 351	
Gross income	2 890	2 774	3 793	5 375	6 840	8 317	9 849	11 587	14 111	21 730	8 727	
<b>Direct taxes</b>												
Income tax	—	18	152	524	927	1 180	1 497	1 890	2 328	4 169	1 269	
National Insurance contributions	—	1	20	159	318	436	534	632	742	961	380	
Total	—	19	172	683	1 245	1 616	2 031	2 523	3 070	5 130	1 649	
Disposable income	2 890	2 755	3 622	4 692	5 595	6 702	7 818	9 064	11 041	16 600	7 078	
<b>Indirect taxes</b>												
Domestic rates (net of rebates) <sup>1</sup>	219	192	239	264	280	301	322	342	355	455	297	
<b>Taxes on final goods and services</b>												
VAT	146	145	255	345	402	498	573	681	797	1 095	494	
Duty on tobacco	121	79	125	163	194	188	200	183	201	222	168	
Duty on beer	18	19	32	47	71	80	90	99	111	146	71	
Duty on wines	3	5	8	17	14	19	24	29	35	67	22	
Duty on spirits	10	20	36	42	51	56	57	66	80	136	55	
Duty on hydrocarbon oils	15	19	40	79	102	118	147	162	200	245	113	
Car tax	1	2	4	9	11	15	19	25	31	48	17	
Vehicle excise duty	8	12	24	37	43	49	58	67	73	91	46	
Television licences	19	26	30	30	33	34	35	37	37	38	32	
Stamp duty on house purchase	—	1	2	3	4	6	9	13	14	29	8	
Customs' duties	11	10	16	20	23	28	31	39	43	58	28	
Other	12	13	17	19	26	30	33	33	38	39	26	
<b>Intermediate taxes</b>												
Commercial and industrial rates	59	58	81	103	116	136	155	178	203	268	136	
Employers' NI contributions	74	72	103	132	149	175	202	232	264	353	176	
Duty on hydrocarbon oils	27	25	34	44	49	57	65	74	83	115	57	
Vehicle excise duty	8	7	10	13	15	18	20	23	26	37	18	
Other	9	9	12	16	18	21	24	27	31	40	21	
Total indirect taxes	761	715	1 067	1 382	1 599	1 830	2 064	2 309	2 623	3 484	1 783	
<b>Benefits in kind</b>												
Education	397	190	304	572	593	651	672	752	718	742	559	
Welfare foods	52	17	28	34	25	25	22	21	21	18	26	
National health service	652	705	666	562	577	573	559	530	553	553	593	
Housing subsidy	152	92	87	84	90	66	64	43	49	26	75	
Rail travel subsidy	5	4	8	12	10	22	21	33	41	96	25	
Option mortgage scheme	2	1	5	15	13	27	23	28	18	19	15	
Life assurance premium relief	4	5	7	16	22	25	33	37	45	82	28	
Total	1 265	1 014	1 105	1 295	1 329	1 389	1 395	1 444	1 444	1 537	1 322	
Final income	3 394	3 054	3 659	4 605	5 325	6 261	7 149	8 199	9 862	14 653	6 616	

<sup>1</sup> Together with water, etc, charges.

## Average incomes, taxes and benefits, 1982

By decile groups of households ranked by gross income

TABLE 6

	£ per year											Average over all decile groups
	Decile group											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
Decile points (£)	2 494	3 432	4 681	6 162	7 673	9 121	10 683	12 695	15 862			
Number of households in the sample	743	743	742	743	743	743	743	742	743	743	743	7 428
Original income	264	564	1 587	3 682	5 789	7 372	9 026	10 865	13 455	21 152	21 152	7 376
<b>Cash benefits</b>												
Age-related	1 188	1 397	1 224	722	412	297	235	206	167	170	170	602
Child-related	23	68	135	229	267	295	292	286	240	257	257	209
Income-related	496	746	805	525	305	258	227	173	171	171	171	388
Other	56	172	244	277	160	166	126	124	125	77	77	153
Total	1 763	2 383	2 408	1 752	1 145	1 016	879	789	703	676	676	1 351
Gross income	2 027	2 946	3 995	5 434	6 934	8 387	9 905	11 653	14 158	21 828	21 828	8 727
<b>Direct taxes</b>												
Income tax	18	63	180	519	922	1 168	1 479	1 877	2 326	4 133	4 133	1 269
National insurance contributions	2	9	52	172	324	418	523	622	738	944	944	380
Total	20	72	232	691	1 246	1 585	2 002	2 500	3 064	5 078	5 078	1 649
Disposable income	2 006	2 875	3 763	4 743	5 688	6 802	7 903	9 153	11 095	16 751	16 751	7 078
<b>Indirect taxes</b>												
Domestic rates (net of rebates) <sup>1</sup>	181	214	246	261	286	299	325	342	362	452	452	297
Taxes on final goods and services												
VAT	110	159	239	345	398	500	599	685	810	1 090	1 090	494
Duty on tobacco	58	94	135	182	179	195	204	193	204	231	231	168
Duty on beer	16	19	32	49	63	81	92	98	112	151	151	71
Duty on wines	4	5	8	14	15	20	25	29	36	66	66	22
Duty on spirits	14	17	31	42	44	63	59	70	75	139	139	55
Duty on hydrocarbon oils	11	24	42	75	97	128	146	156	200	249	249	113
Car tax	1	3	4	8	9	17	20	25	31	46	46	17
Vehicle excise duty	6	15	24	34	43	51	60	62	75	90	90	46
Television licences	20	25	28	31	33	34	35	37	38	38	38	32
Stamp duty on house purchase	1	1	2	2	5	6	9	13	15	29	29	8
Customs' duties	7	11	16	20	23	28	32	39	44	58	58	28
Other	9	14	17	20	26	30	32	35	38	40	40	26
<b>Intermediate taxes</b>												
Commercial and industrial rates	47	62	80	102	117	139	158	180	206	269	269	136
Employers' NI contributions	58	78	101	130	150	179	205	234	267	354	354	176
Duty on hydrocarbon oils	20	27	34	43	50	59	66	75	84	115	115	57
Vehicle excise duty	6	8	10	13	15	18	21	23	26	37	37	18
Other	7	10	12	16	18	21	24	27	31	40	40	21
Total indirect taxes	576	785	1 061	1 386	1 574	1 869	2 111	2 323	2 654	3 495	3 495	1 783
<b>Benefits in kind</b>												
Education	140	190	323	615	590	713	697	768	723	831	831	559
Welfare foods	6	20	43	40	34	33	21	24	19	23	23	26
National health service	548	658	657	594	590	586	573	563	555	606	606	593
Housing subsidy	82	110	110	110	84	68	58	51	51	28	28	75
Rail travel subsidy	5	5	6	11	16	20	24	27	45	94	94	25
Option mortgage scheme	2	4	6	11	16	28	25	23	19	17	17	15
Life assurance premium relief	3	6	10	15	22	26	32	36	45	81	81	28
Total	785	993	1 155	1 396	1 353	1 474	1 431	1 492	1 458	1 680	1 680	1 322
Final income	2 216	3 082	3 857	4 753	5 468	6 407	7 223	8 322	9 899	14 936	14 936	6 616

<sup>1</sup> Together with water, etc, charges.

## Distribution of households co-operating in the Family Expenditure Survey, 1982

By decile groups of households ranked by original, gross, disposable and final incomes

TABLE 7

	1 adult retired	2 adults retired	1 adult non- retired	2 adults non- retired	3 or more adults	1 adult with children	2 adults 1 child	2 adults 2 children	2 adults 3 or more children	3 or more adults with children	All house holds	
Decile groups of original income												
Bottom .. .. .	303	129	84	36	6	75	30	27	38	15	743	
2nd .. .. .	367	217	44	38	16	25	7	10	9	10	743	
3rd .. .. .	184	242	93	80	26	37	17	30	18	15	742	
4th .. .. .	55	88	140	150	65	43	65	65	37	35	743	
5th .. .. .	19	33	129	185	53	11	104	117	49	43	743	
6th .. .. .	6	16	75	174	79	5	102	172	59	55	743	
7th .. .. .	2	5	66	209	83	8	86	151	61	72	743	
8th .. .. .	2	10	44	206	105	3	87	151	44	90	742	
9th .. .. .	—	4	16	228	176	2	74	95	30	118	743	
Top .. .. .	1	2	10	191	234	—	54	79	30	142	743	
Total .. .. .	939	746	701	1 497	843	209	626	897	375	595	7 428	
Decile groups of gross income												
Bottom .. .. .	537	11	142	16	1	27	6	2	1	—	743	
2nd .. .. .	268	228	72	68	3	55	17	21	7	4	743	
3rd .. .. .	70	278	100	95	16	59	47	46	25	6	742	
4th .. .. .	30	115	129	158	43	39	63	79	54	33	743	
5th .. .. .	17	45	95	191	50	13	108	132	54	38	743	
6th .. .. .	10	33	52	195	83	4	96	150	59	61	743	
7th .. .. .	4	12	57	186	103	6	85	155	57	78	743	
8th .. .. .	2	10	33	213	115	3	83	136	54	93	742	
9th .. .. .	—	9	13	207	193	3	67	98	32	121	743	
Top .. .. .	1	5	8	168	236	—	54	78	32	161	743	
Total .. .. .	939	746	701	1 497	843	209	626	897	375	595	7 428	
Decile groups of disposable income												
Bottom .. .. .	523	6	153	19	2	26	7	5	2	—	743	
2nd .. .. .	294	186	107	59	5	51	16	15	6	4	743	
3rd .. .. .	62	277	118	104	7	56	50	43	20	5	742	
4th .. .. .	28	138	115	177	29	38	74	83	42	19	743	
5th .. .. .	19	59	73	196	54	19	96	129	64	34	743	
6th .. .. .	7	39	61	193	75	8	93	151	61	55	743	
7th .. .. .	4	15	33	195	111	5	83	162	57	77	742	
8th .. .. .	2	10	19	204	133	3	82	138	56	96	743	
9th .. .. .	—	12	13	194	186	2	70	94	29	143	743	
Top .. .. .	—	4	9	156	241	1	55	77	38	162	743	
Total .. .. .	939	746	701	1 497	843	209	626	897	375	595	7 428	
Decile groups of final income												
Bottom .. .. .	382	37	208	70	9	11	15	8	2	1	743	
2nd .. .. .	346	124	134	85	9	22	16	5	1	1	743	
3rd .. .. .	144	216	108	128	19	41	52	28	3	3	742	
4th .. .. .	36	195	87	205	27	44	70	54	13	12	743	
5th .. .. .	19	101	78	206	68	29	104	109	17	12	743	
6th .. .. .	8	32	46	209	97	26	99	148	34	44	743	
7th .. .. .	4	16	13	183	118	21	89	173	64	62	743	
8th .. .. .	—	11	13	173	145	7	65	148	87	93	742	
9th .. .. .	—	12	7	134	154	4	58	128	90	156	743	
Top .. .. .	—	2	7	104	197	4	58	96	64	211	743	
Total .. .. .	939	746	701	1 497	843	209	626	897	375	595	7 428	