

United Kingdom 1995: Survey Information*

*The information presented here is based on the Robustness Assessment Report on Income Distribution Data for the United Kingdom. Margaret Frosztega, Social Security Department and on the "Family Expenditure Survey User Documentation 1995/96", by the Office for National Statistics.

For more information about the survey and its variables, please check the pages of the Data Archive: <http://www.data-archive.ac.uk/findingData/snDescription.asp?sn=3783>

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A. General Characteristics

Name

Family Expenditure Survey (FES)

Administrative unit responsible for the survey

Institution:	Department of Social Security,
Name:	Margaret Frosztega
Address:	The Adelphi, 1-11 John Adam Street, London, WC2N 6HT
Country:	UK
Tel:	0171 962 8232
Fax:	0171 712 2001
E-mail:	frosztet@asdlondon.dss-asd.gov.uk

The Family Expenditure Survey (FES) is a voluntary sample survey of private households. Prior to 1989 the Department of Employment had responsibility for the Family Expenditure Survey, with the data collection being carried out by the Office of Population Censuses and Surveys, Social Survey Division. In 1989 the Central Statistical Office took over the responsibility for the survey, with the Office of Population Censuses

and Surveys, Social Survey Division remaining responsible for the data collection. With the amalgamation of the Central Statistical Office and the Office of Population Censuses and Surveys in April 1996, the Office for National Statistics (ONS) became the responsible body, both as principal investigator and data collector.

Purpose

The original purpose was to collect expenditure data for weights for the (consumer) retail price index; and for national accounts estimates of consumers' expenditure. Income data are used to identify "Index households" for the retail price index.

To provide information on spending patterns for the Retail Prices Index, for analysis of expenditure and income distributions, characteristics of individuals at various positions in the distribution, tax benefit modelling, effects of taxes and benefits.

Main users are government analysts. Others include local authorities, employers, trade unions, and researchers.

History

The survey has been conducted each year since 1957. The survey is continuous; interviews are spread evenly over the year to ensure that seasonal expenditure changes are covered. From time to time, changes are made to the information sought. Some changes reflect new forms of expenditure or new sources of income, especially benefits. The survey data may therefore not provide a consistent time series, and care should be taken when making comparisons over time.

Time series are available since the first survey year. Publications from 1957 onwards and electronic data are available from the Office for National Statistics from 1988 onwards. At the Data Archive Essex University from 1961. The Household Below Average Income (HBAI) datasets are available for 1979, 1981 and from 1988 to 1996/7. Data are released as an anonymized micro-data set.

Changes over time

No major changes, except that in the annual report of the FES assistance to low-income households specifically for housing costs has been excluded from income. In 1983 an effective discontinuity in income data was created because assistance for renters was switched from a general benefit to a benefit specific to housing costs. In 1992. Before 1992, imputed income, that is the rent they would pay themselves for living in the property, was included as income and also as a housing cost. Mortgage payments were not counted as a housing cost. From 1992 imputed income has not been calculated and has not been counted as a housing cost. From 1992 interest payments on a mortgage have been counted as a housing cost, though repayments of the capital have not been included.

Comparability

Many definitions are harmonised with other surveys but the income concept is not harmonised with UN guidelines. It is intended to harmonise expenditure data on COICOP.

Income definitions as published in the report of the survey are not strictly harmonised with all sources. Some also differ from the definitions used in the analysis of income presented in the series Households Below Average Income.

Income data are also available from other social surveys where different questions and differing levels of detail may be used. The Family Resources Survey is the other major source of income information. This survey has a larger sample size, some differences in biases, and more extensive editing of benefit information. The two surveys collect income to the same level of detail, but some variation in derived definitions are used, such as in the definition of income from self-employment and the treatment of assistance with rent.

B. Population, Sampling size, sampling frame

Population: 58.6 million (1995) in United Kingdom

<i>Population covered by the survey</i> <i>Exclusion</i>	Size of group excluded (individuals)	<i>Likely effects on income analysis</i>
Geographical areas: Scottish Islands (and northern Highlands up to 1996)	<0.3% of population	Negligible*
Homeless people With no accommodation In "bed & breakfast" accommodation	< 10,000 < 50,000	Negligible* Small: high proportion are on low incomes and not in work, but group not large enough to have much impact on most analyses.
People in care or nursing homes; or in hospital for > 1 month	c. 500,000	Small <i>except</i> for results specific to those aged 80+; exclusions are likely to have wide range of incomes, though disproportionate share have low incomes before state assistance with homes' costs.

People in hostels/halls of residence(students, nurses etc.)	c. 100,000	Small overall. <i>But</i> may introduce significant biases into analyses of economic activity and incomes of young (age <25) adults.
Children's homes	c.10,000	Negligible*
Military, police, their families, civilians living in military installations	< 100,000? (including 2h)	Not known. Exclusions are likely to have wide range of equivalized incomes; unlikely to have many at extremes of income distribution. Overall effects may be small.
Foreign armed forces, diplomats etc.	?	Negligible* These households will be included in the FES if not on a base or other institutional household.
Prisoners	< 60,000	Small. Group are not in work and (mainly) on low incomes. But group not large enough to have much impact on most analyses.
Others (<i>E.g. defined by economic activity, age, income level, family size</i>)	No exclusions of private households due to age, income level, economic activity or family size. Roman Catholic priests in housing provided by parish.	Absent members of households may not always be captured. But effects likely to be negligible. Negligible

* Where the effects of exclusion are said to be "negligible," this is true *for all practical purposes, for analysis using this data source*. For example, the FES sample size would not permit analysis of the incomes of homeless people even if they were included in the sampling frame.

References: An illuminating analysis is "Out for the count: the incomes of the non-household population and the effect of their exclusion from national income profiles," Martin Evans, LSE Welfare State Programme WSP/111, 1995.

An assessment of the coverage of the PAF small user's file was linked to the Census Validation Survey in 1991 and showed that 96.6% of residential addresses were either covered by the frame or would be included under usual SSD sampling procedures. The study did not reveal any strong biases in the characteristics of households covered by the PAF. (See Foster (1994) "The coverage of the PAF as a sampling frame." Survey Methodology Bulletin, no. 34, ONS)

Changes during the last 10 years

Coverage

In 1996/7, the coverage has been extended to include households north of the Caledonian Canal (the northern part of mainland Scotland). The Scottish islands are still excluded. Likely effect: negligible

Size of excluded groups

No significant changes

Sample design

The FES sample for Great Britain is a multi-stage stratified clustered random sample (with clustering at the final stage) drawn from the small users file of the Postcode Address File - the Post Office's list of addresses. The sampling fraction is about 1 in 2100 eligible households. All Scottish offshore islands and the Isle of Scilly are excluded from the sample because of excessive travel costs. Postal sectors (ward size) are the primary sample unit. 672 postal sectors are randomly selected during the year after being arranged in strata defined by standard regions, area type, and two 1991 Census variables (proportion of owner-occupiers and proportion of renters). The Northern Ireland sample is drawn as a random sample of addresses from Rating and Valuation lists (these are local government property registers).

Sample size

Some 10,000 households are selected each year to be invited to take part in the FES. It is never possible to cover the entire sample selected. A small number cannot be contacted at all, and in other households one or more members decline to co-operate. In all, some 7,000 households in the UK, or about 70 per cent of those contacted, co-operate fully in the survey each year i.e. they complete both the diary and the questionnaire.

Details of response in Great Britain to the 1995-96 survey are shown in the following table:

Response in 1995-96

	No of households	% of effective sample
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i.	Sampled households	11,611	-
ii.	Ineligible households, hotels, institutions, empty demolished/derelect	1,461	-
iii.	Effective sample (i.e. i	10,150	100
iv.	less ii)	6,663	65.6
v.	Co-operating households	3,222	31.7
vi.	Refusals	265	2.6
	Households at which no contact could be obtained		

In the Northern Ireland Survey, the effective sample was 1,087 households. The number of co-operating households was 659, giving a response rate of 60.6 per cent. Out of the co-operating households, 134 were selected at random to form part of the UK FES giving a total UK sample of 6,797 households, so that the response rate is of 67%.

Effects on sampling error

Regional stratifier is largely for representation of regions; other stratifiers largely for increased precision. Design effects vary with the nature of the variables. For gross (normal) household income Deft is about 1.1. For different components of income Deft varies between 1.0 and about 1.2.

Weighting procedure

From 1997/8 a standard set of weights is added to the database using CALMAR with controls based on population age group by sex data for individuals (and on number of persons by standard region). The initial set of weights is derived from the Census non-response study. The population controls are by five-year age bands, except for young people where the bands are 10-15, 16-17 and 18-19, and for the 85 and over who are consolidated into one band. The control totals are the Government Actuary's Department's estimates for the mid-year population, adjusted to allow for the non-household population. The adjustment factors are calculated from the proportion living in private households for each age/sex band in the 1991 Census.

The initial weights largely determine which groups have large or small final weights. See 3.4.

The Household Below Average Income (HBAI) official low-income statistics published by the Department of Social Security have used grossing factors with weights relating to age, sex and family type. FES grossing factors for HBAI are: well above average for single childless men under 55; above average for single females over 75; and below average for families with children and single men over 65.

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Income data reference period

Information on earnings is asked for referring to the last pay period (week, 4-week, month, etc.). Information collected allows calculation of both 'current' and 'usual' earnings and an estimate of annual earnings. Similarly, information about pensions and benefits refers to receipts in most recent relevant period (e.g. week, 4week, month, etc.) before the interview. Investment income and self-employment income are typically measured over a 12-month retrospective period.

Interviews are spread evenly throughout the year (different types of household are not interviewed at particular times of the year). Income data are collected only once at the time of the interview for the whole income measurement period.

Income data are mainly current. Self-employment income is based on the most recent period for which figures are available; in some cases this may be several years prior to the interview.

Pay relates to the pay received from work done in the last 7 days. Where a person has just started a job and not yet been paid it relates to the pay they expect to receive. If a person has just left one job and started another in the last 7 days it relates to the current job. Otherwise, variables such as employment status are measured as at the date of interview.

Changes during the last 10 years

The way income from self-employment is collected was changed in 1996-97. (See also availability of labour market information).

Note: The FES is currently conducted on a financial year basis. Prior to 1994/5 the survey was conducted on a calendar year basis.

C. Data collection and acquisition

Fieldwork

The fieldwork is carried out by the Social Survey Division of the Office for National Statistics (ONS) in Great Britain and by the Northern Ireland Statistics and Research Agency of the Department of Finance and Personnel in Northern Ireland using almost identical questionnaires. Households at the selected addresses are visited and asked to co-operate in the survey. A detailed questionnaire covers household topics and income information. Interviews are now conducted using portable computers with the questions being asked using computer assisted personal interviewing (CAPI), rather than using paper questions. Information is collected about the household, about incomes, and about certain regular payments such as rent, gas, electricity and telephone accounts, licences and insurance, education, season tickets and hire-purchase during the interview. Each individual aged 16 or over in the household keeps a detailed record of expenditure every

day for two weeks. Children aged between 7 and 15 were asked on a voluntary basis to keep a diary of daily expenditure. The information provided is kept strictly confidential. If all persons aged 16 and over in the household co-operate each is subsequently paid £10 for the trouble involved in supplying the information. Children who keep a diary are given a £5 payment. A refusal by an under 16 to keep a diary does not invalidate the household from inclusion in the survey. A total of 2,224 children aged between 7 and 15 were asked to complete expenditure diaries, only 39 or about 2 per cent refused. Proxy data are not permitted.

D. Definition of the survey units

Unit of observation

Unit of observation is individual. Household information is aggregated from individual information.

Household

A household comprises one person living alone or a group of people living at the same address having meals prepared together and with common housekeeping. Resident domestic servants are included. The members of a household are not necessarily related by blood or marriage. As the survey covers only private households, people living in hostels, hotels, boarding houses or institutions are excluded. Households are not excluded if some or all members are not British subjects, but no attempt is made to obtain information from households containing members of the diplomatic service of another country or members of the United States armed forces. Nor are attempts made to obtain information from Roman Catholic priests living in accommodation provided by the parish church.

Retired households

Retired households are those where the head of the household is retired. All male heads of household are 65 years of age or more; all female heads of household are 60 years of age or more. For analysis purposes two categories are used in this report:

- a. "A retired household mainly dependent upon state pensions", also known as a pensioner household, is one in which at least three quarters of the total income of the household is derived from national insurance retirement and similar pensions, including housing and other benefits paid in supplement to or instead of such pensions. The term "national insurance retirement and similar pensions" includes national insurance disablement and war disability pensions, and income support in conjunction with these disability payments. In a small number of cases it also covers unemployment, sickness and industrial injury benefits paid to men and women over retirement age. A small proportion of persons in these households may be working a few hours a week.

- b. "Other retired households" are households which do not fulfil the income conditions of "pensioner" households because more than a quarter of the household's income derives from occupational retirement pensions and/or income from investments, annuities etc.

Head of household

The head of the household must be a member of that household. He/she is the person, or the husband of the person who:

- a. owns the household accommodation, or
- b. is legally responsible for the rent of the accommodation, or
- c. has the household accommodation as an emolument or perquisite, or
- d. has the household accommodation by virtue of some relationship to the owner who is not a member of the household.

When two members of different sex have equal claim, the male is taken as head of household. When two members of the same sex have equal claim, the elder is taken as head of household.

Members of household

In most cases the members of co-operating households are easily identified as the people who satisfy the conditions in the definition of a household, above, and are present during the record-keeping period. However, difficulties of definition arise where people are temporarily away from the household or else spend their time between two residences. The following rules apply in deciding whether or not such persons are members of the household:

married persons living and working away from home for any period are included as members provided they consider the sampled address to be their main residence; in general, other people (e.g. relatives, friends, boarders) who are either temporarily absent or who spend their time between the sampled address and another address, are included as members if they consider the sampled address to be their main residence. However, there are exceptions which override the subjective main residence rule:

- i. Children under 16 away at school are included as members;
- ii. Older persons receiving education away from home, including children aged 16 and 17, are excluded unless they are at home for all or most of the record-keeping period.

- iii. Visitors staying temporarily with the household and others who have been in the household for only a short time are treated as members provided they will be staying with the household for at least one month from the start of record-keeping.

Household composition

A consequence of these definitions is that household compositions quoted in this report include some households where certain members are temporarily absent. For example, "one adult and children" households will contain a few households where one parent is temporarily away from home.

Adult

Persons who have reached the age of 18 or who are married are classed as adults.

Children

Persons who are under 18 years of age and unmarried are classed as children.

However, in the definition of clothing, clothing for persons aged 16 years and over is classified as clothing for men and women; clothing for those aged five but under 16 as clothing for boys and girls; and clothing for those under five as babies.

Keep in mind

The analysis of young adults is affected by the poor data available for students. The incomplete coverage of students and their incomes adds to other problems at the bottom of the income distribution; these argue for putting more stress on results from the bottom quintile rather than decile.

Analysis of individuals' income is inhibited because some income items are not collected for all household members; some are paid to one individual but in respect of more than one (e.g. retirement pension paid to an individual in respect of a couple); and transfers within the household are not usually captured.

E. Availability of geographic information

Regions

These are the standard regions for statistical purposes as they exist following the reorganisation of local government in 1974-75 and are defined in detail in *Regional Trends No 30 1995*.

Types of administrative area

These are Greater London, former Metropolitan Counties in England with the Central Clydeside Conurbation in Scotland, and non-metropolitan districts with high and low population densities, i.e. 3.2 persons or more, and less than 3.2 persons, per acre respectively (7.9 persons per hectare). The types of administrative area are defined by the Office for National Statistics on the basis of the definitions of local authority areas and the Central Clydeside Conurbation used by the Registrars General for England and Wales, Scotland, and Northern Ireland. Since the 1989 survey, local authorities in England and Wales and in Scotland are those existing after the reorganisation of local government in 1974 and 1975. For Northern Ireland local authority areas as they existed after the reorganisation of local government in 1973 are used, classified by the population density factors applied generally in the United Kingdom. All Northern Ireland districts are treated as non-Metropolitan.

F. Availability of labour market information

Quality

Employment data is consistent with other available data on this matter. Data on the Employment 1996/7, ILO unemployed and Inactive patterns for individuals in the age groups 16-64/59 are broadly comparable. E.g. ILO unemployed for 16-64/59 is 6.3 per cent from LFS and 6.5 per cent from FES. The proportion of those in employment with second jobs is slightly higher in the FES (5.9 per cent compared with 4.4 per cent from the LFS), though the sample size is smaller and the numbers reported are fairly small.

Economically active

These are persons aged 16 or over who fall into the following categories:

- a. *Employees at work* - those who at the time of interview were working full-time or part-time as employees or were away from work on holiday. Part-time work is defined as normally working 30 hours a week or less (excluding meal breaks) including regularly worked overtime.
- b. *Employees temporarily away from work* - those who at the time of interview had a job but were absent because of illness or accident, temporary lay-off, strike etc.
- c. *Government training schemes* - those participating in government programmes and schemes who in the course of their participation receive training, such as Employment Training, including those who are also employees in employment.
- d. *Self-employed* - those who at the time of interview said they were self-employed.

- e. *Unemployed* - those who at time of interview were out of employment, and have sought work within the last four weeks and were available to start work, or were waiting to start a job already obtained.
- f. *Unpaid family workers* - those working unpaid for their own or a relative's business. For variables using coding 13 'Economic Position' (see Section 3, Part 5 of the User Documentation), unpaid family workers are included under economically inactive because insufficient information is available to assign them to an economic status group.

Economically inactive

- a. *Retired* - persons who have reached national insurance retirement age (60 and over for women, 65 and over for men) and are not working.
- b. *Unoccupied* - persons under national insurance retirement age who are not working, nor actively seeking work. This category includes certain self-employed persons such as mail order agents and baby-sitters who are not classified as economically active.

For variables using coding frame 13 'Economic Position' (see Section 3, Part 5 of the User Documentation), unpaid family workers are included under economically inactive, although they are economically active by definition. This is because insufficient information is available to assign them to an economic status group.

Occupation

The occupational classification used in the survey is the socio-economic groups defined in the *Classification of Occupations (1990)* prepared by the Office for National Statistics. Separate results are shown for the following groups: professional workers; employers and managerial workers; intermediate non-manual workers; junior non-manual workers; skilled manual workers; semi-skilled manual workers; unskilled manual workers; Armed Forces. As far as possible occupation is classified according to an individual's current or most recent job; if an individual has more than one job, the most remunerative is used as the basis for the classification.

Social Class

Social class is based on occupation and is a classification system that has grown out of the original Registrar-General's social class classification. These are defined in the *Classification of Occupations (1990)* prepared by the Office for National Statistics. The 5 categories are:

- I. Professional, etc. occupations
- II. Managerial and technical occupations
- III. Skilled occupations

- (N) non-manual
- (M) manual
- IV. Partly skilled occupations
- V. Unskilled occupations

For the FES, social class of a household refers to the social class based on the occupation of the head of household where the head is economically active. Where the head is not economically active, the household is allocated to a separate category of "retired and unoccupied".

Self employment

The quality of information from the self-employed has been a persistent cause of concern for surveys. For the 1996/7 survey the questions were redesigned. The revised questions recognise that some self-employed individuals do not have separate business accounts and are therefore treated more like employees.

For the FES data set and publication (and the series on redistribution of income):

If the self-employed person prepares annual accounts, this is the primary source of information. The period of the accounts may be for a period two or three years before the interview. The amount of profit is then uprated from this period to the survey period.

If the accounts show a loss the respondent is asked how much is drawn from the business for non-business expenses. Figures for both the loss and the drawings are recorded but in most income analyses the drawings figure would be used as the income figure.

If the respondent does not draw up accounts then he is asked for an estimate of his current income from his business.

Self-employment income is recorded gross of taxes.

The same definition applies prior to 1996/7: only the questions have changed.

For the HBAI analysis:

A similar definition applies except that losses used rather than drawings.

The ratio of income captured in the FES compared to the National Accounts is fairly stable from year to year for most components. However the ratio for self-employment and investment income shows considerable volatility between years. The full explanation for this volatility is not known but it is likely to be a result of timing problems for the FES data and perhaps with the sampling of outliers at the very top of the income distribution.

G. Income data

The standard concept of income in the survey is, as far as possible, that of gross weekly cash income current at the time of interview, i.e. before the deduction of income tax actually paid, national insurance contributions and other deductions at source.

Although information about most types of income is obtained on a current basis, some data, principally income from investment and from self-employment, are estimated over a twelve-month period.

The following are excluded from the assessment of income:

- a. money received by one member of the household from another (e.g. housekeeping money, dress allowance, children's pocket money) other than wages paid to resident domestic servants;
- b. withdrawals of savings, receipts from maturing insurance policies, proceeds from sale of financial and other assets (e.g. houses, cars, furniture, etc.), winnings from betting, lump-sum gratuities and windfalls such as legacies;
- c. the value of educational grants and scholarships not paid in cash;
- d. the value of income in kind, including the value of goods received free and the abatement in cost of goods received at reduced prices, and of bills paid by someone who is not a member of the household;
- e. loans and money received in repayment of loans.

Details are obtained of the income of each member of the household. The income of the household is taken to be the sum of the incomes of all its members. The information does not relate to a common or a fixed time period. Items recorded for periods greater than a week are converted to a weekly value.

Particular points relating to some components of income are as follows:

a. *Wages and salaries of employees*

The normal gross wages or salaries of employees are taken to be their earnings. These are calculated by adding to the normal "take home" pay amounts deducted at source, such as income tax payments, national insurance contributions and other deductions, e.g. payments into firm social clubs, superannuation schemes, works transport, benevolent funds etc. Employees are asked to give the earnings actually received including bonuses and commission the last time payment was made and, if different, the amount usually received. It is the amount usually received which is regarded as the normal take-home pay. Additions are made so as to include in normal earnings the value of occasional payments, such as bonuses or commissions received quarterly or annually. One of the principal objects in obtaining data on income is to enable expenditure to be classified in ranges of normal income. Average household expenditure is likely to be based on the long-term expectations of the various members of the household as to their incomes rather than be altered by short-term changes affecting individuals. Hence if an employee has been away from work without pay for 13 weeks or less he is

regarded as continuing to receive his normal earnings instead of social security benefits, such as unemployment or sickness benefit, that he may be receiving. Otherwise, his normal earnings are disregarded and his current short-term social security benefits taken instead. Wages and salaries include any earnings from subsidiary employment as an employee and the earnings of HM Forces.

b. *Income from self-employment*

Income from self-employment covers any personal income from employment other than as an employee; for example, as a sole trader, professional or other person working on his own account or in partnership, including subsidiary work on his own account by an employee. It is measured from estimates of income or trading profits, after deduction of business expenses but before deduction of tax, over the most recent twelve-month period for which figures can be given. Should a loss have been made, income would be taken as the amounts drawn from the business for own use. Persons working as mail order agents or baby-sitters, with no other employment, have been classified as unoccupied rather than as self-employed, and the earnings involved have been classified as earnings from "other sources" rather than self-employment income.

c. *Income from investment*

Income from investments or from property, other than that in which the household is residing, is the amount received during the twelve months immediately prior to the date of the initial interview. It includes receipts from sub-letting part of the dwelling (net of the expenses of the sub-letting). If income tax has been deducted at source the gross amount is estimated by applying a conversion factor during processing.

d. *Social security benefits*

Income from social security benefits does not include the short-term payments such as unemployment or sickness benefit received by an employee who has been away from work for 13 weeks or less, and who is therefore regarded as continuing to receive his normal earnings.

H. Quality of the dataset

Amount of data collected by proxy

Negligible; field instructions permit proxy information only when a member of the household will be absent from the household for more than 7 days from the household interview. Employers do not supply information on earned income. However when it is possible records (payslips, etc) are inspected. For other income data, records are checked as well wherever it is possible.

Income data from datasets compared to National Accounts information

Income component	Grossed estimate from micro-data as % of national accounts (1995/6)	Comments	Implications for income distribution estimates
Wages and salaries	94%	<p>a) FES does not cover HM Forces living in barracks or stationed overseas (1.5% of national accounts total)</p> <p>b) Comparison is based on FES normal wages and salaries, which are 2.7%, lower than current wages and salaries.</p>	Likely to be small. May be modest under-estimation of inequality if shortfall is heavily concentrated at top of income distribution.
Self-employment income	67%	<p>c) National accounts figure are adjusted upwards by 16% for under-reporting.</p> <p>d) Estimate varies from year to year (between 66 and 87 per cent over last 6 years).</p> <p>e) Known under-response rate for self-employed not corrected for in grossing. (Number reporting income from self-employment in FES is 80% of Inland Revenue figure).</p> <p>f) FES substitutes “drawings from business” for profit in cases where profit is 0, negative or not known.</p> <p>g) FES data usually refers to earlier period, (recorded in survey). Data for comparison purposes has been updated in line with average earnings.</p> <p>h) Reported income tax paid may not be contemporaneous with reported profit</p> <p>i) New questions introduced in 1996/7, which may improve quality of data.</p>	Significant bias in analyses of the self-employed. May affect analyses of income distribution: average income may be underestimated, affecting measures linked to the average. See section 6 also.

Occupational pensions	49%	National accounts includes lump sum payments arising from retirement, redundancy or life assurance policies reaching maturity. After adjustment for this, survey accounts for over 90 per cent.	Small if content to exclude lump sum payments from income. Pensioner inequality may be slightly underestimated
Investment income	52%	<p>a) National accounts estimate is derived as a residual from personal sector estimate by stripping out income of non-profit making bodies. Estimate subject to wide range of error but only about 8% of investment income of household sector.</p> <p>b) National accounts includes private trusts which are not likely to be included in FES (no official estimate of size).</p> <p>c) FES estimates low for high income individuals (around 50% compared with Inland Revenue) because of under-reporting and under-representation.</p> <p>d) FES data relates to earlier period (not recorded in survey), at best to 12 months preceding the interview.</p> <p>e) Estimate varies from year to year (between 49 and 63 per cent over last 6 years).</p>	Missing income likely to be mainly at top of income distribution. Downward bias in income levels at the very top of the income distribution. Average income will be underestimated, affecting measures linked to the average.
Transfers	82%	Varies by benefit - over 90 per cent for retirement <i>pension</i> and child benefit. Some shortfalls may reflect administrative counts inflated by fraud.	Depends on grossing regime; probably small if effects of uncorrected non-response biases are excluded
Other income		FES, National Accounts cover different items	Small; amounts to <2% of total gross income

Direct taxes	97%	Income tax - 96% Employees' National Insurance contributions - 101% Local taxes - 98%	Negligible
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Non-response

Non-response bias is studied through information from decennial Census of Population and Housing on drawn/eligible sample. Most recent study is for FES data in January-June 1991 (Census in April 1991). Main conclusions were that response was lower in Greater London and higher in non-metropolitan areas. Non-response tended to increase with age of the head of household up to age 65. Households with 3 or more adults, or where the head was born outside the UK or was classified to an ethnic minority group were also more likely than other households to be non-responding. A more recent study, using information collected by interviewers, tended to confirm most of this picture.

The results of the Census comparison study provide an initial set of weights for the weighting methods described earlier.

Separate analyses, using a geo-demographic coding system, have indicated similar results. The main problems appear to be lower response rates for older council flat accommodation in inner city areas; and for younger people in houses, which have been sub-divided into separate accommodation units or blocks of flats. Non-response by these groups appears to be mainly because of problems in contacting these households; refusal levels appear to be about normal. Response by higher income households seems to be at normal levels.

Possible effects of the non-response biases on income distribution based on comparisons with tax-or other administrative records.

Overall, FES estimations of the amount of tax paid has been between 97% and 108% of administration figures in recent years. It overestimates the number of taxpayers (by 5% in 1995-96). The distribution of taxpayers and tax paid in the FES is similar to the distribution from administrative sources except at the very top of the income range. The proportion of taxpayers paying in excess of £10,000 income tax in 1995-96 is similar, but the amount of tax paid is 25% lower in the FES.

The DSS HBAI series adjusts for volatility and typical under-capturing of very high incomes by calibrating data for very high incomes (approximately the top 1% of tax units) to data from tax files.

Comparisons with administrative records of benefit receipt can be difficult to interpret, because alternative explanations of differences include: inaccurate recording of benefit receipt in the FES (particularly where one benefit may be confused with another); administrative counts including those not in private households; or being affected by fraudulent receipt including multiple identity fraud. But it appears that low-income non-pensioners without children and low-income families in private rented accommodation, are under-represented in the FES (and grossing regimes which correct the overall

numbers by family type or by tenure leave them under-represented). But there is not strong evidence that the low-income population as a whole is under-represented.

Other comparisons

Non Response Questionnaires have been used to attempt to collect a limited amount of information on the characteristics of non-respondents. These largely have confirmed the findings of the Census non-response comparisons and the geo-demographic comparisons.

Groups for which non-response problems are suspected

The answer to this question is purely conjecture as we have very little information about those who do not respond, and usually only basic demographic information. We suspect that there are some groups from whom it is difficult to get complete or reliable information about earnings and income - those who are reluctant to declare their income for one reason or another. The same groups may be deterred from participating in a financial survey in the first place.

Income estimates most at risk for non-response bias

Response patterns - notably the under-representation of households with very high incomes - may lead to inequality being understated (unless corrective action is taken, as it is for some official statistics). Apparently low response rates among single youngsters suggest results for young single adults should be treated with caution. There may be other significant, but undetected, biases due to variations in response rates.

Employing a plausible grossing regime can have a significant impact on estimates of some features of the broad income distribution. For example, estimated mean gross weekly income can be increased by up to 5% when a grossing system controlling to age, sex and region is used. A grossing regime controlling to age, sex and singles/couples/with/without children can increase the 95th percentile of equivalized incomes by 3%-4%. However, in general the choice of one plausible grossing regime over another makes little difference to the broad picture; and only a modest difference to more detailed estimates, such as the proportions of a group, e.g. single parents, falling below a given income threshold.

Changes in response rates

There has been a steady fall in response rates in the last 10 years from a peak of 72 per cent in 1987 to 62 per cent in 1997-98. The response rate for 1998-99 is likely to be below 60 per cent. It is not known what the effect of this fall has been on response bias.

Income components and non-response

The FES response rules require detailed information on all income components to be provided - by direct reporting. Proxy interviews are only collected for persons away for less than 6 months who are not expected to return within the next 7 days. If not all household members aged 16 and over provide information the entire household is treated as non-responding. Consequently, no major components of income have item non-response.

For self-employed income, and to a small extent investment income as well, there may be item non-response to some questions, but alternative information will be obtained through other questions to provide a full answer to the topic. So there will not be non-response to the topic even though some questions have non-response.

Imputation

Not applicable to period covered in this report.

Top- and bottom coding

No top or bottom coding is used; actual amounts are recorded. Negative income after tax is recorded as such. In some analytical work, an imputation is made when there is negative or zero income for the self-employed. This will be based first on drawings or, if that information is not available, on recorded expenditure.

Is the reported income net of taxes affected by imperfect data on direct taxes?

For the great majority of people, the quality of data on direct taxes is very good. People in receipt of regular income are taxed through a pay-as-you-earn system and investment income is paid net of basic rate tax. The difficulty comes for those whose earnings are irregular, particularly the self-employed and, to a lesser extent, those moving in and out of employment during the year, and higher rate tax payers with significant income from investments. In these cases, the individuals are likely to make lump sum tax payments or receive tax refunds. This information is collected in the FES. However, these lump sums may not be contemporaneous with the reported income. Basing net income on the reported direct tax, including lump sum payments, can lead to households having disposable income very much out of line with their expenditure.

In some income analyses these lump sum tax payments are examined and compared with other information in the survey. If it appears that part or all of the payment relates to income from previous period then the amounts of tax are reduced to reflect this.

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