



**Department of Employment**

# **New Earnings Survey 1986**

**Part B Report, summary  
analyses and other  
analyses by  
agreement**

DEPARTMENT OF EMPLOYMENT  
STATS A 2  
CAXTON HOUSE  
TOTHILL STREET  
LONDON, SW1H 9NA.  
TEL: 01 - 213 .....

# Report — Description of the survey

The New Earnings Survey 1986 was a sample survey of the earnings of employees in employment in Great Britain in April 1986 carried out by the Department of Employment under the Statistics of Trade Act, 1947. It was the 18th survey of its kind, covering employees in all occupations in all types and sizes of businesses in all industries. Previous surveys in this series related to September in 1968 and April in each year from 1970 onwards.

The main purpose of these surveys is to obtain information once each year about the levels, distributions and make-up of earnings of employees in the various occupations, industries and major wage-negotiating groups. They are the department's only regular source of separate earnings statistics for many groups of manual and non-manual workers, particularly in service industries.

## Features of the 1986 Survey

The major change in the survey in 1986 was that information was collected for the first time since 1979 on the size of the employing organisation.

## Questionnaire

The general aim is to keep the survey questions unchanged from year to year, so that directly comparable results are obtained. However, as information is not required on some topics every year, some questions are repeated only at intervals of several years.

The only substantive change to the questionnaire in 1986 was the addition of a question on the size of the employing organisation.

## The survey sample

The survey is based on a one per cent random sample of employees, selected in a completely impersonal way. Those selected are representative of all categories of employees in all occupations, both manual and non-manual, in businesses of all kinds and sizes in all industries, who are members of pay-as-you-earn (PAYE) schemes for purposes of income tax and National Insurance.

The sample each year comprises all those whose National Insurance numbers end with a specified pair of digits. The same pair of digits was specified for the 1985 and 1986 surveys, and so there was a substantial overlap between the samples for the two surveys. Those individuals for whom returns were received in both surveys are said to form a matched sample. More reliable estimates of changes in average earnings between two surveys are obtained when there is such a large overlap, because the margins of error attributable to sampling are reduced.

Two methods are used to identify the employees in the survey sample and their current employers. About three-quarters of the sample was identified from lists supplied by Inland Revenue containing the names of employees with the requisite National Insurance numbers and the names and addresses of the employer of such individuals. This disclosure of information is authorised for such survey purposes by section 58 of the Finance Act 1969. The information is taken from Inland Revenue records relating to employees covered by pay-as-you-earn (PAYE) schemes shortly before the beginning of the financial year, when

new deduction cards are issued to the employers for the individual employees within their PAYE schemes. Consequently this method identifies those employees who were recorded as members of PAYE schemes in Inland Revenue tax office records in February/March and whose National Insurance reference numbers were included in those records.

An employee who is engaged by an employer in the early months of the calendar year is listed under these arrangements only if the employee's entry into the particular PAYE scheme has been recorded in the tax office records before the lists are compiled for the Department of Employment. Consequently some employees with short service with their employers on the survey reference date are not listed under their current employer. A small proportion of employees whose National Insurance numbers are not in the tax office records have had to be omitted from the sampling arrangements.

The remaining quarter of the sample was covered by lists supplied by several large organisations in both the public and private sectors of all their employees with appropriate National Insurance numbers. The sample is essentially the same as that produced by Inland Revenue under the first method, but may relate to those employed on a slightly different date and may in some cases include those not in PAYE schemes.

In general, therefore, the sample covers all employees paying National Insurance contributions through PAYE schemes, even those paying no income tax. The full-time adult employees covered by the sample are representative of virtually all full-time adults. On the other hand,

the part-time employees covered are not representative of all part-time workers. Many of those with earnings below the deduction card limits for tax and National Insurance purposes - in this survey £35.50 a week or £153.83 per month - are not covered. These limits would exclude mainly women with part-time jobs and a small proportion of young people. On the other hand, an individual who is a member of more than one PAYE scheme may appear more than once in a sample: for example, as both a full-time and part-time worker, or twice or more as a part-time worker.

Some occupational pensioners are liable to be picked up by these sampling procedures, but their former employers are asked not to complete survey returns on their behalf.

These procedures have been used since 1975, when the abolition of National Insurance cards made the previous method of sample identification impossible. However the number of employers covered by the second method has tended to increase over time.

#### The survey period

The survey information relates in general to earnings payable in a pay-period which included April 16, 1986. However, the effects of a number of annual pay settlements due to be implemented in or before April are not reflected in the results where the settlement was delayed. Such settlements are marked with an asterisk (\*) in table A in Part A.

Where the earnings paid in the pay-period containing April 16 reflected amounts payable for earlier pay-periods (for

example where a new pay award was implemented with retrospective amounts or where overtime or bonus payments related to earlier pay-periods as well as the current one), employers were asked to exclude payments relating to earlier periods. Also, where bonus payments are made only periodically, employers were asked to include an appropriate share relating to one pay-period. Where the employee had not been in the employment of the employer at any time within a pay-period which included April 16, information was sought for another recent pay-period ending after February 28.

#### **The survey method**

In the survey, information relating to the employees in the sample was obtained from their employers. In most cases, forms were issued to them seeking information about the named employees who had been identified as sample members. However some large organisations supplied the information in other forms, such as punched cards or magnetic tape, under special arrangements with the Department. The questionnaire and covering letter, which incorporates the statutory notice, are reproduced in Appendix 1. Information was not required about employees in private domestic service, non-salaried directors, employees employed outside Great Britain, persons working for their spouses or clergymen holding pastoral appointments. For a relatively small number of employees with more than one job, survey returns were received from two or more employers.

These arrangements yield an extensive range of statistical information needed by the Government, and sought by many other users, while keeping the form-

filling burden on employers to a minimum. Most small firms are not involved at all, and few had to complete more than one return. Even for large firms, the load of form-filling was widely spread. Altogether, only about 500 pay offices, out of about a million in the country, had to extract information for as many as 20 employees.

#### **Confidentiality**

The information provided by employers is treated as strictly confidential and used only for the statistical purposes of the survey. The individuals about whom information was obtained were regarded simply as representatives of the industries, occupations, sex, age-groups, regions, etc to which they belong. The name of the employee was on a perforated slip which the employer was asked to detach before sending the completed return to the Department.

The names could not then be seen by anyone handling the completed returns. There is no provision on the questionnaire for entering the name of the company. The data extracted from the returns for computer processing included neither the name nor address of either the employee or the employer. The resulting analyses show no information about identifiable persons or private businesses. Where results are given for groups of employees of specific employers in the public sector, such as the Post Office or British Coal, the employer's consent to publication has been obtained.

#### **Information obtained**

**Total gross earnings for one pay-period.**  
For each employee in the sample, the

employer reported the employee's total gross earnings for one pay-period (normally that which included the reference date - Wednesday April 16, 1986) before statutory, superannuation and other deductions. These earnings included all payments which related to that pay-period, regardless of when particular payments included in the total were paid. Under some pay arrangements, different types of payments are subject to different time-lags; consequently, all payments relating to the one period may not all have been paid to the employee at the same time. Exceptionally, information about some payments may not have been available when the survey return was made and so could not be reported; for example, if a delayed pay settlement had a retrospective effect on earnings for April. As in all surveys since 1971, the total earnings reported excluded payments not relating to the survey pay-period (for example, advances on arrears of pay or sick pay for

sickness absence outside the period, holiday pay for holidays outside the period). The employer also reported whether the employee's earnings for this period had been affected by short-time working, holidays, sickness or other absence or because the employment only lasted for part of the pay-period. When, for brevity in presentation, the phrase "affected by absence" is used, the term "absence" also includes situations when work was interrupted for part of the period or the employee was laid off temporarily by the employer or when the employee was not in the employment of the employer.

Information was obtained only from employers; no information was obtained from the employee about, for example, any earnings received from other concurrent employment, or about tips or gratuities received but not included in the pay from the employer.

## New Earnings Survey, 1986

Essential reading for all concerned with earnings, hours of work etc., in Great Britain. Published in six separate parts, price £8.95 net each.

To HM Stationery Office:  
P.O. Box 276, London SW8 5DT

Enclosed please find £52.50 being a subscription (including postage) for all six monthly parts of the 1986 NEW EARNINGS SURVEY

The copies should be sent to

Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

The value of payments in kind to the employee by the employer was generally excluded. Exceptionally, for agricultural and catering workers, if the employer provided accommodation, meals, etc, for which values reckonable for pay purposes are laid down in the statutory wages order, these notional amounts were included in the total earnings reported, but not itemised separately.

The information related to a single pay-period, and so is not necessarily representative of pay over a longer period. As mentioned, it will not take account of most delayed settlements which had a retrospective effect on earnings for April. The survey does not of course take any account of those changes in rates of pay which have subsequently become operative but have had no effect on earnings for April.

Although it is not possible to make precise estimates of current earnings levels by linking the survey results to subsequent developments, it would be possible to make a broad assessment for some groups of employees using published information on changes in rates of pay since the survey period (both from official sources such as the publication Time Rates of Wages and Hours of Work, and from unofficial sources). An annotated list of the main collective agreements governing pay with notes on the coverage of the 1986 survey figures, the main factors likely to be reflected in the changes in earnings between the 1985 and 1986 surveys, and some information on subsequent pay developments, appears as table A in Part A.

**Components in the make-up of pay.** There are many different types of pay systems and so considerable variety in the way in which the total earnings of an employee are made up by combining pay components of different kinds. An employee may receive simply a fixed amount per hour, day, shift, week or month. More frequently, however, there is a basic wage or salary determined on such a

basis, supplemented by additional payments of various kinds, at least for some pay-periods. There are generally higher or premium rates of pay for overtime, night, weekend or shift work, at least for manual workers, although, for some employees, such work may be regarded as part of normal duties and not result in additional pay.

Apart from components related to the length of time worked, there may also be payments related to results or performance under piecework and other systems of payment-by-results (PBR), bonuses of various kinds (including profit-sharing), commission and other incentive payments. In some cases, the employee may be paid wholly by results or performance, receiving only either a fixed rate of commission or an amount per task or unit of production.

**Other payments.** Many kinds of allowances and miscellaneous types of payments also occur. These include seniority, age, cost of living etc allowances, area (for example London) additions, danger or dirt money, inconvenience pay, site travelling, tool, clothing and uniform allowances. Payments of these kinds which, in some cases, are regarded as additions to basic pay may be regarded, in other cases, as an integral part of basic pay and possibly not quantified separately; also, what are regarded as additional items or supplements at one point in time may subsequently be consolidated into basic pay. Similarly, what are regarded as bonuses or commission payments in some cases may be difficult to differentiate from what are regarded as payments under payment-by-results systems in other cases. In a general survey of this kind, there is consequently a limit to the extent to which the make-up of pay can be analysed.

As in all surveys since 1973, the employer reported, under each of the following three headings, the amounts of payments, if any, which were included in the total earnings for the reference pay-period:

(a) **Overtime earnings for the particular pay-period**, if the employee had been paid for any overtime hours, either actually worked or guaranteed, during the period. The amount reported was the total pay for such hours, not the premium element only; with the possible exception of an element of PBR, etc, payments, if the overtime element was not separated or quantifiable. For example, if six hours of overtime were paid at "time and a half", the overtime earnings would be nine times the rate per hour (including the premium element of three times this rate), but the overtime hours would be six (not nine) hours.

(b) **PBR, etc, payments relating to this period**. This heading covered all payments under piecework and other systems of payment-by-results bonuses, including profit-sharing, commission, and other incentive payments, with the possible exception of any such payment treated as overtime earnings. As the precise nature of any payment under this heading was not described, no differentiation could be made between amounts linked to individual, team, plant or company performance. Because the survey is not limited to particular sectors nor to particular categories of workers, the short questionnaire cannot be designed to relate to particular systems of pay. Experience from the 1968 and 1970 surveys had shown that, in these general surveys, clear distinctions cannot be made between, for example, bonuses and other kinds of incentive payments, because terminology and practice differ in different systems. This broad component of pay corresponds broadly to a group of components identified in each survey, except in 1971 and 1972.

In the 1981 and subsequent surveys, incentive payments made in each pay-period have been distinguished from those made less frequently than each

pay-period, such as annual or quarterly bonuses. In the case of regular payments, the amount paid in the pay-period was reported; for less frequent payments, an estimate of the proportionate amount for one pay-period was supplied.

(c) **Shift, etc, premium payments relating to this period**, if the employee had been paid at special higher rates for shift work or for night work or weekend work which had not been treated as overtime. The amount reported under this heading was the premium element only, not the total pay for these spells of work. Separate information on this component was obtained in each survey, except in 1971 and 1972.

**Hours**. The employer reported, where possible, normal basic hours, ie the number of hours which the employee was expected to work in a normal week, excluding main meal-breaks and all overtime. The employer also reported the number of actual hours of overtime within the reference pay-period for which the overtime payments were made; these are described as overtime hours. If, because of the nature of an employee's job, normal basic hours could not be reported, the employer was asked whether the employee was regarded as a full-time or as a part-time worker.

**Other information for classification purposes**. Other information obtained from the returns included sex, calendar year of birth, job title and description, industry, area (sub-region) of employment, and, if relevant, listed collective agreement and/or statutory wages board or council.

#### **Age**

As in all surveys since 1974, the employer was asked to report the calendar year of birth of the employee or, where this information was not available, to give an estimate. The employee's age is thus known in completed years at the beginning of the calendar year.

**Classification of employees**

The principal classifications of employees used in presenting results are:

- (a) **sex:**
- (b) **age:** in completed years at the beginning of the year of the survey;
- (c) **whether on adult rates:** as in 1984 and 1985, many analyses in the 1986 survey are limited to employees on adult rates. In surveys carried out before 1984, the corresponding analyses were limited to men aged 21 and over or women aged 18 and over;
- (d) **full-time or part-time:** most analyses relate only to full-time workers - those normally expected to work for more than 30 hours a week (25 or more for teachers), excluding main meal-breaks and all overtime whether worked regularly or not, and others without specified normal hours who were regarded as full-time by their employers;
- (e) **occupation:** each employee has been classified to an occupation in the List of Key Occupations (KOS) used by the Department for statistical purposes (see Appendix 2). Following normal practice, those described as trainees in their job title or description have been classified to the occupations for which they were being trained;
- (f) **manual or non-manual:** each occupation has been allocated to either the manual or the non-manual category (see Appendix 2);
- (g) **industry:** each employee was classified to the activity of the 1980 edition of the Standard Industrial Classification (SIC) of the establishment or business unit in which the employee was employed;
- (h) **area of employment:** the part of the standard region in which the employee's place of work or base was situated. Greater London and the remainder of the South East region of England have been treated as separate regions in the regional analyses. The other sub-regions used are counties in England and Wales, administrative regions in Scotland, Greater London boroughs and the City of London (see Appendices 1 and 4);
- (i) **agreement:** if the pay and/or conditions of the employee were reported by the employer to be affected directly or indirectly by a listed collective agreement (see below and Appendix 1); and
- (j) **wages board or council:** if the employee was reported to be within the scope of such a statutory authority (see Appendix 1).

**Manual and non-manual workers**

As in previous surveys, the occupational classification has been used for distinguishing manual and non-manual workers. As indicated in Appendix 2, all employees classified to certain occupations have been regarded as manual workers, and all those in the remaining occupations as non-manual workers.



This present system of occupational classification, and the associated distinction between manual and non-manual occupations, have been used for the 1973 and subsequent surveys with only very minor changes.

#### Classification by collective agreement

The lists of major national collective agreements and of wages boards and councils (Appendix 1) are reviewed each year. These lists are changed as little as possible from year to year, so that valid comparisons can be made of results for different years and consistent time series. Where changes have to be made (for example, because the coverage of an agreement is known to have changed) this is indicated in Appendix 1.

#### Public and private sector classification of employees

For the purpose of compiling estimates of the mean and quantiles of the distribution of earnings in the public sector and its components, and the private sector, employees are generally classified to these sectors in the following way:

- (a) those reported to be affected by a listed major collective agreement: to the sector in which the agreement mainly operates, as shown in Appendix 1 (note that the British Telecom agreements are now in the private sector);
- (b) other employees: to the private sector unless employed in one of the following industries:

#### SIC (1980) Code

##### Central government

Forestry	02
Ordinance, small arms and ammunition	329
National government service	

##### Central government (contd)

not elsewhere specified	9111
Justice	912
National defence	915
Social security	919
Hospitals, nursing homes etc	951
Other medical care institutions	952
Medical practices	953
Dental practices	954

##### Local government

Local government service not elsewhere specified	9112
Police	913
Fire services	914
Refuse disposal, sanitation and similar services	921
Higher education	931
School education	932
Education not elsewhere specified and vocational training	933

##### Public corporations

Deep coal mines	1113
Production and distribution of electricity, gas and other forms of energy	16
Water supply industry	17
Iron and steel industry	221
Steel tubes	222
Other drawing, cold rolling and cold forming of steel	2235
Shipbuilding and repairing	361
Railway and tramway vehicles	362
Railways	71
Scheduled road passenger transport and urban railways	721
Other road passenger transport	722
Air transport	75
Supporting services to sea transport	763
Supporting services to air transport	764
Postal services	7901

Telecommunications (SIC group 7902) is from the 1985 survey regarded as private sector.

Estimates based on the New Earnings Survey 1970-1977 were published in the December 1977 issue of Employment Gazette. The current method of calculating earnings is essentially Method Two of that article, although the allocation of employees to sectors has been slightly altered on occasions since 1977 to reflect changes in the boundary between the public and private sectors and the change in industry classification from the 1968 SIC to the 1980 SIC. Results based on this method have appeared in table 1 of the 1978 and subsequent reports.

#### Other classifications of employees

The various classifications so far mentioned take no account of any special factors which may have affected the earnings of the employee for the particular survey pay-period. There is generally a relatively small proportion of employees who are off work throughout a specified period, and in consequence either receive no pay at all for the period or receive only either holiday pay or sick pay. There are also some whose employment commences or terminates within the period and others off work or laid off by the employer for part of the period, and whose pay, in consequence, relates to only part of the pay-period. In all these cases where an employee was paid in respect of less than normal basic hours during the survey period, the earnings are described in the published results as "affected by absence".

Information was not obtained about other special factors which affected the pay of the individual employee such as disability, fringe benefits or payments in kind, (except for agricultural and catering workers, whose employers were asked to include in total earnings the reckonable value, as laid down in the appropriate Wages Order, of accommodation, meals, etc, provided); or

about non-contributory pension schemes, employers' contributions to pension schemes and so on.

Employees may also be classified according to whether their earnings for the survey pay-period included payments of particular types separately identified in the survey (namely overtime, PBR etc, and shift etc, premium payments).

#### Response: the complete sample

The results in this publication are based on the 166,000 satisfactorily completed returns received in time for processing.

Grossing factors, ie factors by which numbers of employees in the sample should be multiplied to obtain approximate estimates of the corresponding numbers of employees in employment in Great Britain, can be calculated for all full-time male and female employees, by comparing NES sample numbers with estimates of numbers of employees based on the Census of Employment and quarterly employment surveys, thus:

	Males	Females
(a) Full-time employees in employment, March 1986 (estimate, thousands)	10,753	5,378
(b) Full-time employees (all ages) in 1986 NES sample	90,841	44,032
(c) Grossing factors (a divided by b)	118.4	122.1

Since part-time employees are not fully covered in the sample, meaningful grossing factors for part-timers cannot be calculated. However, by multiplying numbers of part-time workers in the sample by the appropriate grossing factors for full-

timers, and comparing the result with the estimates of part-time employment, it is estimated that about one-quarter of part-time employees are not covered in the survey.

The grossing factors also show the level of response, ie to what extent the number of usable returns falls below 1% of all full-time employees in employment. The 1986 survey was based on about 85% of the number of records of full-time employees there would be in a full 1% sample. The following table indicates the reasons why the response was less than complete:

	Thousands	
	1986	1985
1. 1% of employees in employment	209.2	208.1
2. Not identified of which (eg not on PAYE schemes, missing from Inland Revenue records, no National Insurance number recorded)	10.4	19.1
3. Forms issued or cases listed (item 1 less item 2)	198.8	189.0
4. Forms received back by time of survey closedown	190.9	181.7
5. Taken on survey file of which (a) used for tabulations	166.0	162.1
	165.6	161.9

(b) containing errors	0.4	0.3
6. Not taken on survey file (item 4 less item 5) of which	25.5	19.5
(a) uncompleted questionnaires of which	25.0	18.8
(i) Out of scope - occupational pensioner non-salaried director working for spouse working outside UK	2.5	1.6
	1.9	1.4
	0.7	0.5
	0.3	0.1
(ii) employer could not be traced	0.8	0.8
(iii) no trace of employee	1.7	1.3
(iv) left employer	13.7	11.4
(v) duplicate National Insurance numbers	0.4	0.6
(vi) all other reasons	3.0	1.1
(b) completed questionnaires not taken on survey file	0.5	0.6

Comparison of items 3 and 4 shows that 96% of forms issued in 1986 were returned, and some of those not returned may have related to those no longer working for the employer to whom the form was sent. The main reason for incomplete coverage is the failure to trace employees to their current workplace, causing a loss of around 16,000 returns or about 8% of the intended sample.

#### The matched sample

Returns received for the same employees in the 1985 and 1986 surveys form the overall matched sample.

Between the two surveys, one or more of the classification characteristics of an employee in the matched sample might have changed. For example, a full-time worker might have become a part-time worker; a juvenile might have become an adult; a change of jobs might have involved a change of industry, of occupation, of area of employment or in a relevant collective agreement or wages council, absence might have affected the employee's pay for one or other of the survey pay-periods.

There were 84,000 (58,000 men and 26,000 women) who were classified as full-time adult workers in both surveys and whose pay for each of the relevant pay-periods was not affected by absence.

Any group separately identified in the survey by the various classifications described above will include some for whom returns were also received in the previous survey and who belonged to the corresponding group in that survey. These form a matched sample within that group. For example, the matched 1985 and 1986 sample of full-time manual men in the mechanical engineering industry whose pay for both pay-periods was not affected by absence consists of those males who were on adult rates and in full-time employment in a manual occupation in this industry, both in April 1985 and in April 1986, and whose pay for the relevant pay-periods in April 1985 and April 1986, was

not affected by absence. Some may have changed jobs and possibly their firms and/or areas of employment. The specification of this particular matched sample excludes those who were not on adult rates in 1985, those who were not in this industry at both dates and those whose pay was affected by absence in either or both pay periods, even though they may be in the overall matched sample.

In analyses of the overall matched sample by age, the age-group is determined by the age at January 1, 1985. Thus the matched 18 to 20 age-group consists of those born in 1966, 1965 and 1964 who were thus aged 19, 20 and 21 respectively at January 1, 1986.

Analyses based on matched samples of full-time adults are based on those who were so classified in each survey. Analyses by agreement of increases in average earnings based on matched samples relate to those reported to be affected by a particular listed agreement in each survey. In the corresponding analyses by industry the results for a particular industry relate to those employed in that industry in each survey, but those for an industry group relate to those employed in the same industry group, even though they may have moved between industries within the group. Similarly in the corresponding analyses by occupation, the results for a particular occupation relate to those classified to that occupation in each survey, and those for a main group to those classified to the same main group, though possibly to different occupations within the same main group.

#### Measurement of earnings and hours

Any data on total earnings, overtime earnings, overtime hours, PBR etc, payments, and shift, etc, premium payments which related to a pay-period longer than one week were first converted to a weekly basis. The following measures were then derived for each employee, where practicable:

- (i) total gross weekly earnings;
- (ii) overtime earnings (per week);
- (iii) PBR, etc, payments (per week), of which:
  - (a) incentive payments made in each pay-period (per week);
  - (b) incentive payments made less frequently (proportionate amount per week);
- (iv) shift, etc, premium payments (per week);
- (v) gross weekly earnings excluding overtime earnings; that is (i) less (ii);
- (vi) gross weekly earnings excluding overtime earnings, PBR etc, payments and shift, etc, premium payments; that is (i) less (ii), (iii) and (iv); or in other words excluding all components separately identified in the survey; for brevity this is described as "all other pay";
- (vii) normal basic hours (if specified);
- (viii) overtime hours (per week); and, provided earnings had not been affected by absence;
- (ix) total weekly hours - that is (vii) plus (viii);
- (x) gross hourly earnings (including the effect of any overtime earnings and overtime hours); and
- (xi) gross hourly earnings excluding the effect of overtime earnings and overtime hours.

Total weekly hours could only be measured if the employee had specified normal basic hours and the earnings of the employee for the survey pay-period were not reported to have been affected by absence. The sum of normal basic hours and any overtime hours was then taken as the total weekly hours. These hours will have been worked in most cases; however, in some cases, they will include hours not worked but nevertheless paid for at full rates; for example, where sickness or other absence or idle time did not affect the employee's pay. The overtime hours relate to the actual duration of overtime for which overtime earnings were paid; for example if the employee was paid six hours' pay for four hours' overtime, the measure was four, not six, overtime hours.

#### Average earnings and hours

Average (mean) weekly earnings of a group of employees were obtained by dividing the sum of their individual weekly earnings by the number of employees. For those whose pay was not affected by absence and whose normal basic hours were reported, average hours were obtained by dividing the sum of their individual total weekly hours by the number of these employees. Average hourly earnings were calculated by dividing the sum of the weekly earnings of these employees by the sum of their individual total weekly hours. (This is not the same as dividing the sum of the individual hourly earnings by the number of employees).

#### Distribution of earnings

A primary objective of this annual survey is to ascertain how earnings differ between individuals within industrial, occupational and other groups. The spread or distribution of the earnings of individuals within a group can be presented in various ways; for example, by giving the numbers whose earnings were in specified ranges or were below specified amounts: to facilitate

comparisons between different groups, these numbers can also be expressed as percentages of the total number of the group in the sample. Another compact and systematic way of showing the spread of earnings of individuals within a group is to give quantities which are known as quantiles, in particular, the median, quartile and decile earnings. The highest decile, upper quartile, median, lower quartile and lowest decile earnings are, respectively, amounts below which the earnings of 90, 75, 50, 25 and 10 per cent of the individuals in the group fall. To facilitate comparisons between different groups or between different time-periods, these amounts can also be expressed as percentages of the corresponding medians. As employees whose earnings for the pay-period were affected by absence tend to distort the numbers in the lower ranges of weekly earnings, such employees have been excluded from most analyses of the distributions of weekly earnings. When they are included, the numbers in the lower ranges of earnings are relatively higher, as can be seen from those summary analyses (tables 34, 37 and 38) in which the distributions are given on each basis.

#### **Measurement of annual increases in average earnings**

An important advantage of using a survey design which provides a matched sample is that changes in average earnings between the two survey dates can be measured in alternative ways: first, by direct comparison of corresponding results of the two surveys to derive changes based on complete samples; and secondly, by restricting the comparison to those in the matched sample who were classified in a specified way in both surveys, to derive changes based on matched samples. The two measures are different and are used for different purposes. Either type of measure may relate to each of the various measures described above of average weekly and hourly earnings and particular components of earnings.

In measuring changes in average weekly earnings based on complete samples, there are two alternatives; those whose pay for

the relevant survey pay-period was affected by absence may be either included in both years or excluded. In measuring changes based on matched samples however, those whose pay for either period was affected by absence are normally excluded.

The increase based on complete samples is obtained by comparing the April 1986 estimate of average earnings of a specified group of workers with the corresponding April 1985 estimate for the corresponding group of workers. (The published increase figure takes account of the effect of late returns and amendments to the 1985 survey, and therefore may differ slightly from the increase in published earnings between the two surveys). Some of the individuals in the group in 1986 would not have been in the corresponding 1985 group, and vice versa. The increase based on complete samples thus includes the effects of all kinds of changes in the composition of the group within the period, for example, persons entering or re-entering the occupation, leaving the occupation, retiring or becoming incapacitated or unemployed. It answers such questions as "How do the average earnings of full-time men in a particular occupation in April 1986 compare with the average earnings of full-time men in that occupation in April 1985?"

The extent to which, those affected, directly or indirectly by particular collective agreements, are identified in the survey is liable to be incomplete and to vary from year to year. Increases in average earnings based on complete samples (but not those based on matched samples) given in analyses by agreement may thus be attributable in part to these variations in reporting standards.

The increase based on a matched sample is obtained by comparing the average earnings for April 1985 and April 1986 of those for whom information was obtained in both surveys, who were classified to the same specified group in each survey and whose pay for each period was not affected by absence.

Estimates based on matched samples thus exclude the effects of labour turnover and other changes in the composition of the sample within the period. They still include the effects of changes in overtime earnings (unless explicitly excluded) and, for example, payment-by-results payments, bonuses or commission and other incentive payments, and miscellaneous components of pay, in addition to the effects of changes in rates of pay resulting from collective bargaining, promotions and up-grading, salary and other scale increments and merit increases in pay. In particular, for groups in which there are incremental salary scales the increase in average earnings based on matched samples will tend to be higher than the corresponding increases based on complete samples, as they include the effect of the increments received during the period by those remaining in the group, but take no account of those retiring at the top of the scale or leaving the group being replaced by others joining at the bottom of the scale. Consequently, even when these increments do not result in any increase in the average salary per head within the group, the increments will account for part of the increase in average earnings of the matched sample. Estimates of increases based on matched samples answer such questions as "By how much did the average earnings of men who were employed in a particular occupation at both survey dates increase between April 1985 and April 1986?"

Changes from year to year in the timing of implementation of pay settlements will affect the survey estimates of increases in average earnings, whether based on complete or on matched samples. In most cases the survey estimate of the increase in average earnings of a group of workers between April 1985 and April 1986 will reflect an "annual" pay settlement within the period and, for some non-manual workers, of annual increments within salary scales.

In some cases, however, the estimate may reflect the effect of two "annual" settlements (for example, where the 1985 settlement was not implemented until after the 1985 survey returns were submitted but the 1986 settlement was implemented in time to be reflected in the 1986 survey returns). In other cases, no "annual" settlement will be reflected in the estimate (for example, where the 1985 settlement was covered in the 1985 survey but the 1986 settlement has been delayed and is not reflected in the 1986 survey results). In tables 2 to 9 in Part A and tables X1 to X3 in Part B three categories of annual increase are distinguished:

- (a) those broadly reflecting a single "annual" settlement;
- (b) those reflecting more than one "annual" settlement; and
- (c) those reflecting no "annual" settlement.

This is only a broad distinction based on a combination of the reported figures, external evidence on the timing of settlements and information from some respondents. A fuller account of the main factors reflected in the 1985 and 1986 surveys and the changes between them is shown in table A in Part A.

#### **Presentation of results**

The layout of the survey report is as far as possible kept the same from year to year, to help users find the information they require and facilitate comparisons of comparable figures. Since the report was first produced in six booklets in 1974, analyses of the survey data have been grouped primarily according to the grouping of employees to which they relate. Thus for example in Part C of this publication all the analyses have since 1974 related to full-time adults in particular industries, and a wide range

of different types of results is given. Other Parts give similar sets of analyses for full-time adults in particular occupations (Part D) and regions, sub-regions and age-groups (Part E). A description of the contents of each booklet is given on page B1.

Where it is necessary to change or rearrange the contents of tables, this is pointed out in the introduction to the Part and in table headings. The following change has been made to the contents of the 1986 report; Part F contains some analyses of the number of employees by size of organisation.

In general, if separate results were given for a group of employees in 1985, the corresponding results appear for 1986 provided the sample size for that analysis is at least 50 and the standard error expressed as a percentage of the estimate is not more than 4%; however if the results were not published last year they will only be given this year if the sample size is at least 100 and the percentage standard error not more than 2%. This rule is intended to provide as much continuity in published results as possible, while ensuring that less reliable data do not appear. When the percentage standard error exceeds 2%, the average is enclosed in brackets to indicate the need for extra caution in using the figures. Similarly estimates of increases in average earnings between the 1985 and 1986 surveys are shown in brackets where the standard error is more than 2% of the April 1985 estimate of average earnings.

#### Sampling errors

Being based on a sample, the results are estimates which are subject to sampling error. Where median or average earnings are given, the associated standard error is generally also given, so that account may be taken by users of the potential margins of error due to sampling. There are two chances in three that the value

obtained from the sample will not differ by more than the standard error from the value which would have been obtained if the survey had covered all employees and not only a sample. The chance of the differences being more than twice the standard error is only about one in twenty. The standard error of an estimate is shown in one (or both) of two forms; as an amount in pounds and pence and/or as a percentage of the estimate. Exceptionally, for an estimate of the increase in average earnings between April 1985 and April 1986, the standard error is given as a percentage of the 1985 average.

The percentage standard errors of quartiles and deciles can be derived approximately from the standard error of the median, using the following table:

Percentage standard errors		
Median	Quartiles	Deciles
1.0	1.1	1.4
2.0	2.2	2.7
3.0	3.3	4.1
4.0	4.4	5.5

The standard errors of estimates of increases in average earnings are much reduced by the adoption of a sample design which provides a substantial overlap between the samples in successive surveys. Depending on the degree of overlap, the reduction is between 15 per cent and 35 per cent compared to independent samples. Alternatively, the current sampling method permits estimates of increases in average earnings of the same reliability as independent samples of double the size.



From: **DEPARTMENT OF EMPLOYMENT**

(Office stamp)

Notice under Section 1 of the  
Statistics of Trade Act 1947

Dear Sir(s)

## New Earnings Survey 1986

I am writing on behalf of the Secretary of State for Employment to ask you to supply the information asked for about the employee(s) named on the enclosed form(s). The provision of this information is a requirement under the Statistics of Trade Act 1947. The main purpose of the survey is to provide the essential minimum of statistical information, not available from other sources, which is needed by the Government about the levels, distributions and make-up of earnings within the various major industrial, occupation, wage-negotiation, regional and age groups. It is a main source of official earnings statistics which are extensively used not only within government but also by industrial organisations and many others in the social and economic field.

I enclose a form to complete for each employee in the sample who is in your employment. Please give information only about the person named on the form, even though they may not seem typical or you may not be their main employer. As the sample is a relatively small one, comprising all employees in Pay As You Earn (PAYE) schemes whose national insurance number ends... 14, it is important that a form should be completed for everyone in the sample.

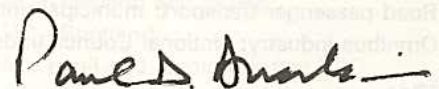
Please return the form(s) within the next month. A prompt reply will help us to continue to publish the results of the survey quickly.

If the employee's workplace is in Northern Ireland, it would be helpful if you would fill in the form as usual and agree to its transfer to the Department of Economic Development for Northern Ireland to be included in their survey. In this case, please answer the question on place of work by entering "Northern Ireland" and the town or district.

All the information you provide will be treated as strictly confidential as required by the Statistics of Trade Act and used only to prepare statistical analyses. Neither your name and address nor that of the employee will be recorded on the magnetic tapes which are used for processing the information.

If you need any further information or help in completing the form(s), the staff at the local office of the Department or at Watford (tel: Watford 28500, ext. 360 or 428) will be glad to help.

Yours faithfully



PAUL D DWORKIN

DIRECTOR OF STATISTICS

**LIST 1 MAJOR COLLECTIVE AGREEMENTS****PUBLIC SECTOR****Coalmining**

- 401 Management and clerical staff  
 402 Mining officials and weekly-paid industrial staff  
 403 Underground mineworkers  
 404 Surface mineworkers

**British Steel Corporation**

- 405 Iron and steel and pig iron manufacture  
 Gas  
 406 Gas staffs, and senior officers NJC (NOT to include Higher Management NJC)  
 408 Gas workers NJIC

**Electricity supply**

- 409 Administrative and clerical grades NJC  
 410 Technical engineering staff NJB  
 411 Building operatives NJ (B & CE)C  
 412 Workers other than building operatives NJIC

**Water**

- 460 Water service staffs NJC  
 461 Water service — craftsmen  
 462 Water service NJIC — non-craftsmen

**British Shipbuilders**

- 464 Shipbuilding and ship repairing

**British Airways**

- 414 Engineering and maintenance grades NJC  
 415 Ground services NJC

**British Rail**

- 416 Salaried staff  
 417 Railway workshops  
 418 Footplate staff  
 419 Conciliation staff (other than footplate staff) and miscellaneous grades

**London Regional Transport (formerly London Transport)**

- 420 Railways, general and operating grades  
 421 Road passenger transport, drivers and conductors  
 422 Garages: maintenance staff

**British Road Services—see Private Sector opposite****Other Transport**

- 425 Road passenger transport: municipal undertakings NJIC  
 426 Omnibus industry: National Council undertakings

**Post Office**

- 471 General clerical and executive grades  
 472 Postal clerical and executive grades  
 473 Engineering and allied grades  
 474 Manipulative grades

**British Telecommunications—see Private Sector opposite****National Health Service**

- 431 Administrative and clerical staffs Whitley Council  
 432 Nurses and midwifery staff  
 433 Ancillary staffs Whitley Council  
 434 Maintenance staff  
 463 Ambulancemen Whitley Council

**Teaching****England and Wales: Burnham Committee**

- 435 Primary, secondary and special schools  
 436 Establishments for further education

**Scottish Teachers Salaries Committee**

- 437 Primary and secondary schools  
 438 Establishments for further education

**Universities**

- 466 Academic staff (non-clinical)  
 467 Clerical and certain related administrative staff JC  
 468 Technical staff JC  
 469 Manual and ancillary staff JC

**British Broadcasting Corporation**

- 465 National joint agreement

**Local authorities' services****England and Wales**

- 439 Administrative, professional, technical and clerical NJC  
 440 Building and civil engineering workers JNC  
 441 Engineering craftsmen and electricians JNC  
 442 Manual workers NJC

**Scotland**

- 443 Administrative, professional, technical and clerical NJC  
 444 Building and civil engineering workers  
 445 Engineering craftsmen  
 446 Electricians and plumbers JNC  
 447 Manual workers NJC

**National Government**

- 448 Prison officers  
 449 Government industrial establishments JCC

**Civil Service National Whitley Council**

- 450 Administration group: middle and higher grades  
 451 Administration group: clerical grades  
 452 Professional and technology group  
 453 Science group  
 454 Secretarial, typing and data processing grades  
 455 Paper-keeping and messengerial grades

**Other services**

- 456 Police service (ranks below superintendent only)  
 458 Fire services—operational ranks from station officer to senior divisional officer  
 457 Fire services—operational ranks below station officer  
 459 Fire services—control room and non-operational staff

## PRIVATE SECTOR

## Quarrying

601 Roadstone quarrying NJIC

## Food, drink and tobacco manufacturing

- 602 Bacon curing NJIC  
 603 Baking industry NJC—England and Wales  
 604 Baking industry—Scotland  
 605 Master bakers—England and Wales  
 606 Biscuit JIC  
 608 Corn trade NJIC  
 609 Flour milling NJIC  
 610 Food manufacture JIC  
 611 Milk product/milk processing and distribution NJNC—England and Wales

## Chemical manufacturing

- 613 Chemical industries—maintenance craftsmen  
 614 Chemical and allied JIC—other workers  
 676 Pharmaceutical and fine chemical JIC  
 615 Paint, varnish and lacquer NJIC

## Metal manufacturing and metal using industries

- 616 Metal trades manufacture  
 619 Engineering—manual workers  
 621 Vehicle building—England and Wales  
 622 Vehicle building—Scotland  
 623 Electrical cable making JIC  
 624 Wire and wire rope NJIC

## Textile, clothing and footwear manufacturing

- 625 Cotton and man-made fibres spinning and weaving  
 626 Woollen and worsted spinning and weaving—Yorkshire  
 627 Textile bleaching, dyeing, printing and finishing  
 628 Silk JIC (including Leek and Macclesfield)  
 629 Carpet NJC  
 630 Clothing  
 631 Hosiery (knitting) trade NJIC  
 632 Footwear

## Brick, ceramics, glass etc. manufacturing

- 633 Building brick and allied NJC—England and Wales  
 634 Cast stone and cast concrete products NJIC—England and Wales  
 635 Ceramic industry NJC  
 636 Glass container NJIC

## Timber, furniture etc. manufacturing

- 637 Sawmilling—England and Wales  
 638 British furniture trade JIC  
 675 Timber container JIC

## Paper and printing industries

- 639 Paper making, paper coating, paper board and building board making  
 640 Fibreboard packaging manufacture  
 641 Newspapers: Newspaper Society—England and Wales  
 642 Newspapers: NPA—London and Manchester  
 643 Newspapers: Scotland  
 644 General printing—England and Wales  
 646 General printing—Scotland  
 647 Journalists—provincial newspapers

## Construction

- 649 Civil engineering construction CB  
 650 Mechanical construction engineering  
 651 Building industry—road haulage workers  
 652 Building trade NJC operatives etc.  
 654 Electrical contracting JIB—England and Wales  
 655 Electrical contracting JIB—Scotland  
 656 Plumbing mechanical engineering services JIB—England and Wales  
 657 Plumbing JIB—Scotland  
 658 Heating and ventilating  
 674 Environmental engineering NJIC

## Distributive trades

- 659 Wholesale grocery and provision trade JIC—England and Wales  
 660 Wholesale grocery trade JC—Scotland  
 673 Slaughtering industry JIC  
 661 Retail co-operative societies (except milk workers)  
 662 Retail multiple grocery and provisions trade JC  
 663 Retail meat trade JIC—England and Wales  
 664 Retail meat trade JIC—Scotland  
 665 Retail multiple footwear trade  
 666 Retail pharmacy NJIC—England and Wales

## British Road Services

- 423 Engineering maintenance and repair grades NJNC  
 424 Operating and other wages grades NJNC

## British Telecommunications

- 480 Managerial and professional structure  
 481 Clerical and allied grades  
 482 Engineering and allied grades  
 483 Telephone supervising grades  
 484 Telephone operating grades  
 485 Catering and miscellaneous grades

## Other services

- 667 Banking JNC—England and Wales  
 668 Banking JNC—Scotland  
 670 Motor vehicle retail and repair industry NJC  
 671 Merchant Navy officers  
 672 Merchant Navy seamen

## ABBREVIATIONS

(N) JIC—(national) joint industrial council  
 (N) JNC—(national) joint negotiating committee/council  
 NJB —national joint board  
 NJC —national joint committee/council  
 JC —joint committees or joint conference

JCC —joint co-ordinating committee  
 JIB —joint industry board  
 CB —conciliation board  
 B & CE—building and civil engineering  
 NPA —Newspaper Publishers Association

LIST 2

WAGES BOARDS AND COUNCILS

Clothing etc. manufacturing

- 206 Clothing manufacture
- 205 Retail bespoke tailoring
- 210 Hat, cap and millinery

Textile etc. manufacturing

- 211 Lace finishing
- 212 Linen and cotton handkerchief and household goods and linen piece goods
- 213 Made-up textiles
- 214 Fur
- 215 Ostrich and fancy feather and artificial flower
- 216 Flax and hemp
- 217 Rope, twine and net
- 218 Sack and bag

Other manufacturing

- 248 Aerated waters
- 221 Button
- 223 Coffin furniture and cerement making
- 224 Perambulator and invalid carriage
- 225 Toy

Agriculture

- 226 Agriculture—England and Wales
- 227 Agriculture—Scotland

Retail distributive trades

- 246 Retail trades (Food and allied trades)
- 247 Retail trades (Non-food)

Catering

- 237 Licensed residential establishment and licensed restaurant
- 238 Licensed non-residential establishment
- 239 Unlicensed place of refreshment

Other Services

- 241 Boot and shoe repairing
- 242 Hairdressing undertakings
- 243 Laundry
- 244 Cotton waste reclamation
- 245 General waste materials reclamation

LIST 3

GREATER LONDON BOROUGHS

City of London	Ealing	Hillingdon	Newham
Barking	Enfield	Hounslow	Redbridge
Barnet	Greenwich	Islington	Richmond-upon-Thames
Bexley	Hackney	Kensington & Chelsea	Southwark
Brent	Hammersmith	Kingston-upon-Thames	Sutton
Bromley	Haringey	Lambeth	Tower Hamlets
Camden	Harrow	Lewisham	Waltham Forest
Croydon	Havering	Merton	Wandsworth
			City of Westminster

Please return completed form to:—

**FOR OFFICIAL USE**

Sheet ..... Line .....

B/Seq. No.

NI No.         1 4

SICR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AA
A	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AB
O	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AC
C	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AD
J	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AE
E	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AF
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	AG

(Office stamp)

**CONFIDENTIAL New Earnings Survey 1986**

- If the person named on the tear-off portion is in one of the categories listed opposite, do not complete the questionnaire. Instead enter the appropriate category letter (A,B,..... G) in this box.  Then sign and return the form please.
- Please provide the following information about the employment, earnings and hours of the employee named on the tear-off for the pay week (or longer period used for pay purposes) which included **16 APRIL 1986**.
- If the employee was not in your employment at any time during the pay-period which included **16 April** please give information for another pay-period ending after **28 February 1986**, but see Exemption E opposite.
- Answer questions marked\* by putting a circle around the number to the right of the answer which applies (eg in answer to question 1(a) put ① for a male and ② for a female).
- **Please read the notes on the tear-off portion before answering the relevant questions.**

**1 Sex and year of birth**

(a) \* Is the employee male or female?

Male	1
Female	2

(b) What is the employee's year of birth?

1 9

**2 Occupation**

(a) What, if any, is the employee's job title? .....

(b) Give a short description of the work this employee does. ....

One year or more	1
Under one year	2

(c) \* Has the employee worked at this job in your organisation for one year or more?

**3 Place of work**

Please show in either(a)or(b)where the employee works, and enter the postcode here

(a) Greater London Borough.....

(b) Elsewhere  
Town/District.....  
County (region in Scotland).....

**4 Size of organisation**

\* Please indicate the number of employees (full-time and part-time) in the organisation which employs this person

under 10	1
10 to 24	2
25 to 49	3
50 to 199	4
200 or more	5

**5 Wages Board or Council and Collective Agreement**

(a) If this employee is covered by a Statutory Wages Board or Council, please refer to List 2 on the enclosed leaflet and enter the appropriate number in the box provided. Otherwise enter "NA".

(b) If one of the major collective agreements in List 1 on the enclosed leaflet affects the pay and conditions of employment of this employee, either directly or indirectly, please enter its number from the list. Otherwise enter "NA".

# 6 Basic weekly hours of work

B126

- (a) How many hours, excluding overtime, is this employee expected to work in a normal week?
- (b) \* If it is not possible to give a specific number of hours, indicate if the employee is regarded as full-time or part-time

HOURS		MINS	

full-time	1
part-time	2

# 7 Pay-period length, effect of absence and pay rates

- (a) \* Please show the length of the pay-period you will use to give details of the employee's earnings at question 8.

one week	1	two weeks	2	three weeks	3
four weeks	4	five weeks	5	calendar month	6
other (please specify)	.....7				

- (b) \* Were the employee's earnings for the pay-period affected by absence? (For example because of sickness, holiday or other absence, short-time working or the employment lasting only part of the period).

earnings affected	1
earnings not affected	2

- (c) \* Is the employee regarded as being paid on adult rates (ie rates which, subject to a minimum age, are not determined with reference to age)?

on adult rates	1
on other rates	2

# 8 Earnings for the pay-period

Please show by entering the amounts in the appropriate boxes, how the employee's pay for the pay-period including 16 April 1986 was made up.

## Overtime

- (a) The actual hours of overtime worked in excess of normal basic hours reported at 6(a).

If none, enter "NIL".

(e.g. if 4 additional hours were worked at time and a half enter 4 not 6).

HOURS		MINS	

- (b) Overtime earnings—the full amount for the period, not just the premium element.

If none, enter "NIL".

£		p	

**Incentive payments** e.g. piecework, bonuses (including profit sharing), commission, productivity and other incentive payments.

- (c) Where made in each pay-period, enter the amount paid for this period.

If none, enter "NIL".

--	--	--	--	--	--

- (d) Where made less often than each pay-period, enter the fraction which relates to one pay-period.

If none, enter "NIL".

--	--	--	--	--	--

## Shift premium etc. payments

- (e) Premium payments (not total pay) for shift work including shift disturbance, and for night work or weekend work where these are not treated as overtime.

If none, enter "NIL".

--	--	--	--	--	--

## All other payments, including basic pay

- (f) Basic pay and all other payments not shown above (e.g. London or other area allowance).

If none, enter "NIL".

--	--	--	--	--	--

- (g) **TOTAL GROSS PAY FOR THE PAY-PERIOD** (items(b)to(f) )

If none, enter "NIL".

--	--	--	--	--	--

Please give the name of someone who will deal with any queries about the answers on this form.

Name Mr/Mrs/Miss .....  
(CAPITALS PLEASE)

Telephone No. ....  
STD Code .....  
Ext.....

Signed on behalf of the employer ..... Date .....

## Appendix 2 Grouped list of occupations used in the survey

The occupations are arranged in 18 main groups. Those in groups I to IX are classified as **non-manual** with six exceptions, marked with an “m” in groups VII, VIII and IX. These six and all occupations in groups X to XVIII are classified as **manual**. As explained in Chapter 2, where occupations are

bracketed in the list, results are presented in the occupational analyses only for the combined group of occupations, but not for the separate occupations. In the analysis by occupation, shorter titles are used for some occupations and groups of occupations, particularly those bracketed in the list

### GROUP I – MANAGERIAL (GENERAL MANAGEMENT)

Top managers – national government and other non-trade organisations  
General, central, divisional managers – trading organisations

### GROUP II – PROFESSIONAL AND RELATED SUPPORTING MANAGEMENT AND ADMINISTRATION

Judges, barristers, advocates and solicitors  
Company secretaries  
Town clerks and other clerks to local authorities  
Secretaries of trade associations, trade unions, professional bodies and charities  
Accountants  
Estimators, valuers and assessors  
Finance, investment, insurance and tax specialists  
Personnel and industrial relations officers and managers  
Organisation and methods, work study and operational research officers  
Economists, statisticians and actuaries  
Systems analysis and computer programmers  
Marketing and sales managers and executives  
Advertising and public relations managers and executives  
Purchasing officers and buyers  
Property and estate managers  
Librarians and information officers  
Public health inspectors  
Other statutory and similar inspectors  
General administrators – national government  
General administrators – local government  
All other professional and related supporting management and administration

### GROUP III – PROFESSIONAL AND RELATED IN EDUCATION, WELFARE AND HEALTH

University academic staff  
Teachers in establishments for further and higher education  
Secondary teachers  
Primary teachers  
Pre-primary teachers  
Special education teachers  
Vocational/industrial trainers  
Directors of education, education officers, school inspectors  
Social and behavioural scientists  
Welfare workers – social, medical, industrial, educational and moral  
Clergy, ministers of religion  
Medical practitioners  
Dental practitioners  
Nurse administrators and nurse executives  
State registered and state enrolled nurses and state-certified midwives  
Nursing auxiliaries and assistants  
Pharmacists  
Medical radiographers  
Ophthalmic and dispensing opticians  
Remedial therapists  
Chiropractors  
Medical technicians and dental auxiliaries  
Veterinarians  
All other professional and related in education, welfare and health

### GROUP IV – LITERARY, ARTISTIC AND SPORTS

Journalists  
Artists, commercial artists  
Industrial designers  
Actors, musicians, entertainers, stage managers  
Photographers and cameramen  
Sound and vision equipment operators  
Window dressers  
Professional sportsmen, sports officials  
All other literary, artistic and sports, including authors and writers

### GROUP V – PROFESSIONAL AND RELATED IN SCIENCE, ENGINEERING, TECHNOLOGY AND SIMILAR FIELDS

Biological scientists and biochemists  
Chemical scientists  
Physical and geological scientists and mathematicians  
Civil, structural and municipal engineers  
Mechanical engineers  
Electrical engineers  
Electronic engineers  
Electrical/electronic engineers  
Production engineers  
Planning and quality control engineers  
Mining, quarrying and drilling engineers  
Aeronautical engineers  
Chemical engineers  
Heating and ventilating engineers  
General and other engineers  
Metallurgists  
All other technologists  
Architectural draughtsmen  
Engineering and other draughtsmen  
Laboratory technicians – scientific and medical  
Engineering technicians and technician engineers

Architects and town planners  
Town planning assistants, architectural and building technicians  
Quantity surveyors  
Building, land and mining surveyors  
Aircraft flight deck officers  
Air traffic planners and controllers  
Ships' masters, deck officers  
Ships' engineers officers  
Ships' radio officers  
All other professional and related in science, engineering and other technologies and similar fields

### GROUP VI – MANAGERIAL (EXCLUDING GENERAL MANAGEMENT)

Production managers, works managers, works foremen  
Engineering maintenance managers  
Site and other managers, agents, clerks of works, general foremen (building and civil engineering)  
Managers – underground mining and public utilities  
Transport managers – air, sea, rail, road, harbour  
Managers – warehousing and materials handling  
Office managers – national government  
Office managers – local government  
Other office managers  
Managers – wholesale distribution  
Managers – department store, variety chain store, supermarket and departmental managers  
Branch managers of shops other than above  
Managers of independent shops (employees)  
Hotel and residential club managers  
Publicans (employees)  
Catering and non-residential club managers  
Entertainment and sports managers  
Farm managers (employees)  
Police officers (inspectors and above)  
Fire service officers  
Prison officers (chief officers and above)  
All other managers

### GROUP VII – CLERICAL AND RELATED

Supervisors of clerks  
Costing and accounting clerks  
Cash handling clerks  
Finance, investment and insurance clerks  
Production and materials controlling clerks  
Shipping and travel arranging clerks  
Records and library clerks  
General clerks and clerks not identified elsewhere  
Retail shop cashiers  
Retail shop check-out and cash and wrap operators  
Receptionists  
Supervisors of typists etc.  
Personal secretaries, shorthand writers and shorthand typists  
Other typists  
Supervisors of office machine operators  
Accounting and calculating machine operators  
Key punch operators  
Automatic data processing equipment operators  
Office machine operators not identified elsewhere  
Supervisors of telephonists, radio and telegraph operators  
Telephonists  
Radio and telegraph operators  
m Supervisors of postmen, mail sorters and messengers  
m Postmen, mail sorters and messengers

### GROUP VIII – SELLING

Sales supervisors  
Salesmen, sales assistants, shop assistants, and shelf fillers  
m Petrol pump/forecourt attendants  
m Roundsmen and van salesmen  
Technical sales representatives  
Sales representatives (wholesale goods)  
Other sales representatives and agents

### GROUP IX – SECURITY AND PROTECTIVE SERVICE

Supervisors (police sergeants, fire fighting and related)  
Policemen (below sergeant)  
Firemen  
Prison officers below principal officer  
Security officers and detectives  
m Security guards, patrolmen  
Traffic wardens  
m All others in security and protective service

## Groups X to XVIII: manual. A few occupations, prefixed with letter "m" in groups VII, VIII and IX are also classified as manual

### GROUP X – CATERING, CLEANING, HAIRDRESSING AND OTHER PERSONAL SERVICE

Catering supervisors  
 Chefs, cooks  
 Waiters, waitresses  
 Barmen, barmaids  
 Counter hands/assistants  
 Kitchen porters/hands  
 { Supervisors – housekeeping and related  
 { Supervisors/foremen – caretaking, cleaning and related  
 Domestic housekeepers  
 Home and domestic helpers, maids  
 School helpers and school supervisory assistants  
 Travel stewards and attendants  
 Ambulancemen  
 Hospital/ward orderlies  
 Hospital porters  
 Hotel porters  
 Caretakers  
 Road sweepers (manual)  
 Other cleaners  
 Railmen, stationmen  
 Lift and car park attendants  
 Garment pressers  
 Hairdressing supervisors  
 Hairdressers  
 All other in catering, cleaning, hairdressing and other personal service

### GROUP XI – FARMING, FISHING AND RELATED

Foremen – farming, horticulture, forestry  
 General farm workers  
 { Dairy cowmen  
 { Pig and poultrymen  
 { Other stockmen  
 Horticultural workers  
 Domestic gardeners (private gardens)  
 Non-domestic gardeners and groundsmen  
 Agricultural machinery drivers/operators  
 Forestry workers  
 Supervisors/mates (fishing)  
 Fishermen  
 All other in farming, fishing and related

### GROUP XII – MATERIALS PROCESSING (EXCLUDING METAL)

(Hides, textiles, chemicals, food, drink and tobacco, wood, paper and board, rubber and plastics)  
 Foremen – tannery production workers  
 Tannery production workers  
 Foremen – textile processing  
 Preparatory fibre processors  
 Spinners, doublers/twisters  
 Winders, reelers  
 Warp preparers  
 Weavers  
 Knitters  
 Bleachers, dyers and finishers  
 Burlers, menders, darners  
 Foremen – chemical processing  
 Chemical, gas and petroleum process plant operators  
 Foremen – food and drink processing  
 { Bread bakers (hand)  
 { Flour confectioners  
 Butchers and meat cutters  
 Foremen – paper and board making  
 { Beatermen, refiner men – paper and board making  
 { Machinemen, dryer men, calendermen, reeler men – paper and board making  
 Foremen – processing – glass, ceramics, rubber and plastics etc  
 Glass and ceramic furnacemen and kilnmen  
 Kiln setters  
 Masticating millmen – rubber and plastics  
 Rubber mixers and compounders  
 Calendar and extruding machine operators – rubber and plastics  
 Man-made fibre makers  
 Sewage plant attendants  
 All other in materials processing (other than metal)

### GROUP XIII – MAKING AND REPAIRING (EXCLUDING METAL AND ELECTRICAL)

(Glass, ceramics, printing, paper products, clothing, footwear, woodworking, rubber and plastics)  
 Foremen – glass working  
 Glass formers and shapers  
 Glass finishers and decorators  
 Foremen – clay and stone working  
 { Casters and other pottery makers  
 { Cutters, shapers and polishers – stone  
 { Foremen – printing  
 { Foremen – paper products making  
 { Foremen – bookbinding  
 Compositors  
 Electrotypers, stereotypers  
 Other printing plate and cylinder preparers  
 { Printing machine minders (letterpress)  
 { Printing machine minders (lithography)  
 { Printing machine minders (photogravure)  
 Printing machine assistants (letterpress, lithography and photogravure)  
 Screen and block printers  
 Bookbinders and finishers  
 Cutting and slitting machine operators (paper and paper products making)  
 Foremen – textile materials working  
 { Bespoke tailors and tailoresses  
 { Dressmakers  
 { Clothing cutters and makers (measure)  
 { Other clothing cutters and makers  
 { Coach trimmers  
 { Upholsterers, mattress makers  
 Milliners  
 Furriers  
 Hand sewers and embroiderers  
 Linkers  
 Sewing machinists (textile materials)  
 Foremen – leather and leather substitutes working  
 { Boot and shoe makers (bespoke) and repairers  
 { Leather and leather substitutes cutters  
 { Footwear lasters  
 { Leather and leather substitutes sewers  
 { Footwear finishers  
 Foremen – wood working  
 { Carpenters and joiners (construction sites and maintenance)  
 { Carpenters and joiners (ship and stage)  
 { Carpenters and joiners (other)  
 { Cabinet makers  
 { Case and box makers  
 Wood sawyers and veneer cutters  
 Woodworking machinists (setters and setter operators)  
 Other woodworking machinists (operators and minders)  
 Patternmakers (moulds)  
 Labourers and mates to woodworking craftsmen  
 Foremen – rubber and plastics working  
 Tyre builders  
 Moulding machine operators/attendants (rubber and plastics)  
 Dental mechanics  
 All other in making and repairing (excluding metal and electrical)

### GROUP XIV – PROCESSING, MAKING, REPAIRING AND RELATED (METAL AND ELECTRICAL)

(Iron, steel and other metals, engineering (including installation and maintenance vehicles and shipbuilding)  
 Foremen – metal making and treating  
 { Blast furnacemen  
 { Furnacemen (steel smelting)  
 { Other furnacemen – metal  
 Roller men (steel)  
 { Moulders and moulder/coremakers  
 { Machine moulders, shell moulders and machine coremakers  
 Die casters  
 Metal drawers  
 Smiths, forgemen  
 Electroplaters



**GROUP XIV – PROCESSING, MAKING, REPAIRING AND RELATED (METAL AND ELECTRICAL) – (continued)**

Annealers, hardeners, temperers (metal)  
 Foremen – engineering machining  
 Press and machine tool setters  
 Roll turners, roll grinders  
 Other centre lathe turners  
 Machine tool setter-operators  
 Machine tool operators (not setting up)  
 Press and stamping machine operators  
 Automatic machine attendants/minders  
 Metal polishers  
 Fettlers/dressers  
 Foremen – production fitting (metal)  
 Toolmakers, tool fitters, markers out  
 Precision instrument makers  
 Metal working production fitters (fine limits)  
 Metal working production fitter-machinists – (fine limits)  
 Other metal working production fitters – (not to fine limits)  
 Foremen – installation and maintenance – machines and instruments  
 Machinery erectors and installers  
 Maintenance fitters – non-electrical plant and industrial machinery  
 Knitting machine mechanics (industrial)  
 Motor vehicle mechanics (skilled)  
 Other motor vehicle mechanics  
 Maintenance and service fitters – aircraft engines  
 Watch and clock repairers  
 Instrument mechanics  
 Office machinery mechanics  
 Foremen – production fitting and wiring (electrical/electronic)  
 Production fitters – electrical/electronic  
 Production electricians  
 Foremen – installation and maintenance (electrical/electronic)  
 Electricians – installation and maintenance (plant and machinery)  
 Electricians – installation and maintenance (premises/ships)  
 Telephone fitters  
 Radio, television and other electronic maintenance fitters and mechanics  
 Cable jointers and linesmen  
 Foremen/supervisors – metal working – pipes, sheets, structures  
 Plumbers, pipe fitters  
 Heating and ventilating engineering fitters  
 Gas fitters  
 Sheet metal workers  
 Platers and metal shipwrights  
 Caulker burners, riveters and drillers (constructional metal)  
 General steel workers – shipbuilding and repair  
 Steel erectors  
 { Scaffolders, staggers  
 Steel benders, bar benders and fixers  
 Welders – skilled  
 Other welders  
 Foremen – other processing, making and repairing (metal and electrical)  
 Goldsmiths, silversmiths and precious stone workers  
 Engravers and etchers (printing)  
 Coach and vehicle body builders/makers  
 Aircraft finishers  
 Maintenance and installation fitters – mechanical and electrical  
 Setter operators of woodworking and metal working machines  
 { All other skilled in processing, making and repairing (metal and electrical)  
 { All other non-skilled in processing, making and repairing (metal and electrical)

**GROUP XV – PAINTING, REPETITIVE ASSEMBLING, PRODUCT INSPECTING, PACKAGING AND RELATED**

Foremen – painting and similar coating  
 Painters and decorators  
 Pottery decorators  
 { Coach painters  
 { Other spray painters  
 French polishers  
 { Foremen – product assembling (repetitive)  
 { Foremen – product inspection  
 Repetitive assemblers (metal and electrical goods)

Inspectors and testers (skilled) – metal and electrical engineering  
 Viewers – metal and electrical engineering  
 Foremen – packaging  
 Packers, bottlers, canners, fillers  
 All other in painting, repetitive assembling, product inspecting, packaging and related

**GROUP XVI – CONSTRUCTION, MINING AND RELATED NOT IDENTIFIED ELSEWHERE**

Foremen – building and civil engineering not identified elsewhere  
 Bricklayers  
 Fixer – walling masons  
 Plasterers  
 Floor and wall tilers, terrazzo workers  
 Roofers and slaters  
 Glaziers  
 Railway trackmen and platelayers  
 { Asphalt and bitumen road surfacers  
 { Other roadmen  
 Concrete erectors/assemblers  
 Concrete levellers/screeders  
 General builders  
 { Sewer men (maintenance)  
 { Mains and service layers and pipe jointers (drainage, gas, oil, water)  
 Waste inspectors (water supply)  
 Craftsmen's mates and other builders labourers not identified elsewhere  
 Civil engineering labourers  
 Foremen/deputies – coalmining  
 Face-trained coalmining workers  
 Tunnellers  
 All other in construction, mining, quarrying, well drilling and related not identified elsewhere

**GROUP XVII – TRANSPORT OPERATING, MATERIALS MOVING AND STORING AND RELATED**

{ Foremen – ships, lighters and other vessels  
 { Foremen – rail transport operating  
 { Foremen – road transport operating  
 { Deck and engine room hands (sea-going)  
 { Bargemen, lightermen, boatmen, tugmen  
 Locomotive drivers, motormen  
 Secondmen (railways)  
 Railway guards  
 Railway signalmen and shunters  
 Bus inspectors  
 Bus and coach drivers  
 Heavy goods drivers (over 3 tons unladen weight)  
 Other goods drivers  
 Other motor drivers  
 Bus conductors  
 Drivers' mates  
 Foremen – civil engineering plant operating  
 Mechanical plant drivers/operators – earth-moving and civil engineering  
 Foremen – materials handling equipment operating  
 Crane drivers/operators  
 Fork lift and other mechanical truck driver/operators  
 Foremen – materials moving and storing  
 Storekeepers, warehousemen  
 Stevedores and dockers  
 Furniture removers  
 Warehouse, market and other goods porters  
 Refuse collectors/dustmen  
 All other in transport operating, materials moving and storing and related not identified elsewhere.

**GROUP XVIII – MISCELLANEOUS**

Foremen – miscellaneous  
 Electricity power plant operators and switchboard attendants  
 Turncocks (water supply)  
 { General labourers – engineering and shipbuilding  
 { Other general labourers  
 All other in miscellaneous occupations not identified elsewhere.

## Appendix 3 Glossary of terms and definitions

### Categories of employees

**Persons in the sample** - Employees in employment, other than private domestic service, in Great Britain in April 1986 for whom satisfactorily completed survey returns were received and available for computer processing by August 1986.

**Employees in the matched sample** - Those for whom returns were received in both the 1985 and 1986 surveys. In analyses (for example, by industry) relating to the matched sample, results are given for those classified to the same group (for example, industry) in each year.

**Age** - Number of completed years of age at the beginning of 1986, or, in matched samples, at the beginning of 1985.

### Age groups used in analyses by age:

under 18	30-39
18-20	40-49
21-24	50-59
25-29	60-64
	65 and over

**Adults:** employees on adult rates

**Juveniles:** employees on other rates

**Manual worker** - An employee who is classified to a manual occupation (see Appendix 2).

**Non-manual** - An employee who is classified to a non-manual occupation (see Appendix 2).

**Full-time worker** - Generally, an employee expected to work more than 30 hours, excluding all overtime and main meal breaks, in a normal week; that is, with normal basic hours exceeding 30 per week; but exceptionally,

- (i) if a teacher or academic, with normal basic hours of 25 or more per week, or

- (ii) if an employee without specified normal basic hours, because of the nature of the job, one described as full-time by the employer.

**Part-time worker** - Generally, an employee expected to work not more than 30 hours, excluding all overtime and main meal breaks, in a normal week; that is, with normal basic hours of 30 or less per week; but exceptionally,

- (i) if a teacher or academic, with normal basic hours of under 25 per week, or

- (ii) if an employee without specified normal basic hours, because of the nature of the job, one described as part-time by the employer.

**Employee whose pay for the pay-period was affected by absence** - An employee whose pay for the survey pay-period was reported by the employer to have been affected by "absence" within normal basic hours during the period. "Absence" may include:

- \* employment starting or terminating within the pay-period;
- \* interruption of work due to plant breakdown, inclement weather, etc; generally described as short-time working;
- \* approved absence, including holidays, leave, time off for study;
- \* certified or uncertified sickness (unpaid or on reduced pay);
- \* voluntary absenteeism; late arrival or early finish;
- \* stoppage of work due to an industrial dispute in which the employee was directly or indirectly involved.

### Areas of employment

**Region** - A standard region of England, Scotland or Wales used generally for official statistics: see the list in Appendix 4. In analyses by region, Greater London and the remainder of the South East region of England have been treated as if they were separate regions.

**Sub-region** - A subdivision of an English region, of Scotland or of Wales. In England or Wales, a county; in Greater London, a borough; in Scotland, an administrative region. See the lists in Appendices 1 and 4.

### Agreements

**Collective wage agreement** - A collectively negotiated voluntary agreement between employer(s) and trade union(s) which governs the pay and/or conditions of groups of workers, by providing either the basis for actual pay and conditions or minimum standards. Even though an employee may have more favourable terms and conditions than those in an agreement, or may be employed by an employer who is not a member of an association which is a party to the agreement, the employee's pay and/or conditions of employment may nevertheless be affected by the agreement.

**Wages board or council** - A board or council established under the Agricultural Wages Acts or the Wages Councils Act 1959. An employee within the scope of a wages board or council may also be affected by a voluntary collective wage agreement.

**Wages order** - An order made by an agricultural wages board or a wages council.

### Industries

**Standard Industrial Classification (SIC)** - The UK system of classification of economic activities, used for classifying establishments and businesses for purposes of official statistics. It was originally published in 1948 and revised in 1958, 1968 and 1980. In the 1983 and subsequent surveys the 1980 edition was used; in earlier surveys the 1968 edition is used, although in the 1982 survey employees were also classified to the 1980 edition.

**Industry** - The category of the SIC to which the establishment or business in which the employee was employed is classified.

**Industry group** - Either a division, a class or a group of related classes of the 1980 SIC.

**Manufacturing industries** - Divisions 2 to 4 of the 1980 SIC.

**Non-manufacturing** - Divisions 0, 1 and 5 to 9 of the 1980 SIC, excluding HM Forces and Women's Services in division 9.

**Index of Production industries** - Divisions 1 to 4 of the 1980 SIC: manufacturing industries, together with energy and water supply industries (division 1).

### Public and private sectors of the economy

The public sector of the economy comprises three main branches:

\* **central government:** government departments and establishments, the National Health Service and various government-financed organisations. (The armed forces are not covered by the NES).

\* **local government:** local government authorities (including education authorities), police service and various other organisations.

\* **public corporations:** nationalised industries and other publicly-constituted trading organisations.

The **private sector** comprises all undertakings and businesses outside the public sector.

### Occupations

**Occupation** - One of the occupations or groups of associated occupations

distinguished in the list in Appendix 2. The job title and description of the main duties of each employee, given by the employer, was used by the Department of Employment to classify the employees to one of the listed occupations. Apprentices and other trainees were classified to the occupation for which they were being trained.

**Main occupational group** - One of the 18 numbered groups within which occupations are arranged in the list in Appendix 2.

**List of key occupations for statistical purposes (KOS)** - A list of about 400 occupations arranged systematically within 18 main groups, which is used by the Department of Employment and others as a basis for analysis of statistics by occupation. (See Employment Gazette, September 1972, for a fuller description).

**Manual occupation** - An occupation which is either in main groups X to XVIII or is marked, in the list in Appendix 2, with the letter m in main groups VII to IX.

**Non-manual occupation** - An occupation which is not classified as manual: one which is either in main groups I to VI or is in main groups VII to IX but not marked with a letter m in the list in Appendix 2.

## Hours

**Pay-period** - A week or longer period used by the employer for pay purposes for the category of employees to which the individual in the sample belongs.

**Survey pay-period** - Generally the pay-period which included Wednesday, April 16, 1986. If the employee was not in the employment of the employer in a pay-period which included that date, having left the employment shortly before that date, an alternative period ending after February 28 was used, if possible.

**Normal basic hours** - The number of hours, excluding all overtime and main meal-breaks, which the employee was expected to work in the employment in a normal week. For employees in certain types of employment, a specific figure could not be given.

**Overtime hours** - Hours for which an employee received overtime pay: they may include hours not actually worked, but paid for under guaranteed minimum overtime schemes. Although rates of pay are usually higher for overtime hours than for basic hours, the number of overtime hours is not dependent on the relationship between overtime and basic rates of pay; for example, if four hours are paid at "time rate and a quarter", the number of overtime hours is four not five.

**Total weekly hours** - The sum of (i) the normal basic hours of an employee whose pay for the pay-period was not affected by absence, and (ii) the overtime hours for which the employee received overtime pay, per week in the pay-period. The term is not used for employees without specified normal basic hours or for employees whose pay for the survey pay-period was affected by absence.

## Measures of earnings

**Total gross earnings (pay)** - The total earnings of the employee for the survey pay-period, as reported by the employer, before any statutory or other deductions. They include all payments which related to that period, regardless of when particular payments within the total were made or whether they were all paid at the same time. Where bonuses or similar payments are not paid in each pay-period, they include the proportionate amount for one pay-period based on the last payment, or next payment if known (for example, one-third of a quarterly bonus for a monthly pay-period or one-quarter of a monthly bonus for a weekly pay-period). They exclude payments which were paid during this period but which related to

another period; for example arrears, advances or pay for holidays outside this period or sick pay for sickness absence outside this period. They also exclude reimbursement or payments of travelling, subsistence and similar expenses incurred in carrying out the employer's business. Tips or gratuities received by the employee, but not shown in the employer's pay records, were not reported and so are not included. The value of benefits in kind provided by the employer for the employee is generally not included. Exceptionally, for those agricultural, catering and other workers whose employers provided accommodation, meals, etc, for which reckonable values for pay purposes are laid down in the Wages Orders, their employers were asked to include these amounts in the total gross earnings, but these amounts were not reported separately.

**Component of pay** - One of the four amounts into which an employee's total gross earnings for the survey pay-period could be subdivided from information reported by the employer in the survey.

**Overtime earnings (pay)** - The amount within an employee's total gross earnings for the survey pay-period which the employer reported related to overtime hours, either actually worked or guaranteed, during the period. It is the total pay for the overtime hours, not just the premium element, with the possible exception of the overtime element in other components of pay (for example PBR etc payments) where it is not quantifiable separately.

**PBR etc payments** - The sum, within an employee's total gross earnings for the survey pay-period, of all payments under piecework and other payment-by-results systems, bonuses including profit-sharing, commission and other incentive payments with the possible exception of any relating to overtime hours and treated as overtime earnings. Where such payments are made in each pay-period it includes the amount paid in the survey

pay-period; where they are made less frequently, the proportionate amount for one pay-period, based on the last payment or the next payment if known, is included. These two types of payment were separately reported for the first time in the 1981 survey.

**Shift etc premium payments** - The premium element of payments, within an employee's total gross earnings for the survey pay-period, for shift work or night work or weekend work which was not treated as overtime work.

**"All other pay" or the residual component** - The remainder after subtracting any reported overtime earnings, PBR etc payments and shift etc premium payments (that is, all the separately identified components) from an employee's total gross earnings for the survey pay-period. This could comprise the employee's basic pay, if any, and/or miscellaneous allowances and other payments.

**Conversion of data to a weekly basis** - Any data on pay or overtime hours which related to a period of more than one week were converted on to a weekly basis, by dividing by the number of weeks in the pay-period.

**Gross weekly earnings** - Total gross earnings divided by the number of weeks in the pay-period.

**Weekly overtime earnings** - Overtime earnings divided by the number of weeks in the pay-period.

**Gross weekly earnings excluding overtime earnings (pay)** - Gross weekly earnings minus weekly overtime earnings.

**Conversion of data to an hourly basis** - The only data which could be converted on to an hourly basis were earnings data relating to employees whose pay for the survey pay-period was not affected by absence and for whom normal basic hours were reported.

**Gross hourly earnings, including the effects of overtime pay and overtime hours** - Gross weekly earnings divided by total weekly hours (for an employee whose pay for the survey pay-period was not affected by absence and for whom normal basic hours were reported).

**Gross hourly earnings, excluding the effects of overtime pay and overtime hours** - Gross weekly earnings excluding overtime pay divided by normal basic hours (for an employee whose pay for the survey pay-period was not affected by absence and for whom normal basic hours were reported).

#### **Average earnings/hours**

**Average (mean) weekly earnings of a group of employees** - The sum of the gross weekly earnings of the individual employees in the group divided by the number of employees in the group. Except in parts of table 34, the averages exclude those who received no pay at all for the survey period. Similar calculations are made for other measures of earnings and components of pay expressed on a weekly basis.

**Average (mean) hourly earnings of a group of employees whose pay for the survey period was not affected by absence** - The sum of the gross weekly earnings of the individual employees in the group divided by the sum of the total hours of the employees in the group. The averages exclude those for whom normal basic hours were not reported. Similar calculations are made for hourly earnings excluding the effects of overtime pay and overtime hours, by using weekly earnings excluding overtime pay and normal basic hours.

**Average (total) weekly hours of a group of employees whose pay for the survey period was not affected by absence** - The sum of the total hours of the individual employees in the group divided by the number of employees in the group. The averages exclude those for whom normal basic hours were not reported. Similar

calculations are made for overtime hours and for normal basic hours.

#### **Distribution of earnings (hours)**

**Distribution of earnings (hours) of a group of employees** - A method of showing the spread of the earnings (hours) of the individuals in the group. A full distribution of earnings would show the numbers who received each possible amount in the pay-period concerned. The distributions given in the survey results are condensed and give the numbers (or percentages of the total) with earnings (hours) either in particular ranges or, alternatively, below specified values.

**Quantiles of earnings of a group of employees** - For a sufficiently large group of employees with sufficiently dispersed earnings, the distribution of their earnings may be divided (approximately, at least) into parts, such as halves, quarters and tenths, so that there are equal numbers of employees in each part, and those in one part have earnings below those in the next part. This partitioning determines levels or earnings, known as quantiles, and in particular the median, quartiles and deciles of the distribution, which provide another compact way of describing the nature of the distribution.

**Median earnings of a group of employees** - The amount such that 50 per cent of the employees have earnings below the amount, and the other 50 per cent have earnings above it: the median of a distribution divides it into two halves.

**Lower quartile earnings** - The amount such that 25 per cent of the employees have earnings below the amount and the other 75 per cent have earnings above it.

**Upper quartile earnings** - The amount such that 75 per cent of the employees have earnings below the amount, and the other 25 per cent have earnings above it. The quartiles of a distribution divide it into quarters. Thus half of the group

have earnings between the lower and upper quartiles.

**Lowest decile earnings** - The amount such that 10 per cent of the employees have earnings below the amount, and the other 90 per cent have earnings above it.

**Highest decile earnings** - The amount such that 90 per cent of the employees have earnings below the amount, and the other 10 per cent have earnings above it. The deciles of a distribution divide it into tenths. Thus 80 per cent of the group have earnings between the lowest and highest deciles.

**Joint (or two-way) distribution of (for example) earnings and hours of a group of employees** - This gives the numbers with earnings in particular ranges and with hours in particular ranges, and so both the distribution of earnings of employees with hours in each specified range and also the distribution of hours of employees with earnings in each specified range.

#### Types of analyses

**Summary analysis** - One which gives results only for broad categories of employees, such as full-time manual men, irrespective of their industries, occupations, etc.

**Streamlined analysis** - One which gives a limited selection of results for wage-negotiating, industrial, occupational etc groups of full-time adult workers whose pay for the survey period was not affected by absence. These selected results are brought together from other more detailed analyses of earnings and hours.

**Detailed analysis** - One which gives results for specific wage-negotiating, industrial, occupational etc groups of employees.

#### Miscellaneous

**Standard error** - A measure of the extent to which an estimate based on a sample may differ from the true value, because the sample is only of limited size. There are two chances in three that the estimate obtained from the sample of persons in the survey will not differ by more than the standard error from the true value that would have been obtained if the survey had covered all employees. The chance that this difference will be more than twice the standard error (either way from the true value) is only about one in twenty.

**Grossing factors** - Factors by which numbers of full-time male/female employees in the sample should be multiplied to obtain approximate estimates of the corresponding numbers of employees in employment in Great Britain. Separate factors for particular groups within the sample and for part-time employees are not available.

#### Abbreviations

DE Department of Employment

SIC Standard Industrial Classification

NES New Earnings Survey in Great Britain

PBR Payment-by-results

KOS List of Key Occupations for Statistical Purposes

nes not elsewhere specified in the industrial classification

nie not identified elsewhere in the occupational classification

.. not available

## Appendix 4 Region and Sub-region Classifications

The regions and sub-regions identified in the survey are as follows:

### ENGLAND

#### SOUTH EAST ENGLAND

Greater London

BOROUGHS – see List 3 in Appendix 1.

COUNTIES (\*indicates Metropolitan County).

Remainder of the South East	Bedfordshire Berkshire Buckinghamshire East Sussex	Essex Hampshire Hertfordshire Isle of Wight	Kent Oxfordshire Surrey West Sussex
EAST ANGLIA	Cambridgeshire	Norfolk	Suffolk
SOUTH WEST ENGLAND	Avon Cornwall Devon	Dorset Gloucestershire	Somerset Wiltshire
WEST MIDLANDS	*West Midlands	Hereford and Worcester Shropshire	Staffordshire Warwickshire
EAST MIDLANDS	Derbyshire Leicestershire	Lincolnshire Northamptonshire	Nottinghamshire
YORKSHIRE & HUMBERSIDE	*South Yorkshire *West Yorkshire	Humberside	North Yorkshire
NORTH WEST ENGLAND	*Greater Manchester *Merseyside	Cheshire	Lancashire
NORTHERN ENGLAND	*Tyne and Wear	Cleveland Cumbria	Durham Northumberland
<b>WALES</b>	Clwyd–West Clwyd–East Dyfed (excluding Llanelli)	Gwent Gwynedd Powys	Mid-Glamorgan South Glamorgan West Glamorgan (including Llanelli)
<b>SCOTLAND</b>	REGIONS		
	Borders Central Dumfries and Galloway Fife	Grampian Highland Lothian	Strathclyde Tayside Orkney, Shetland, Western Isles