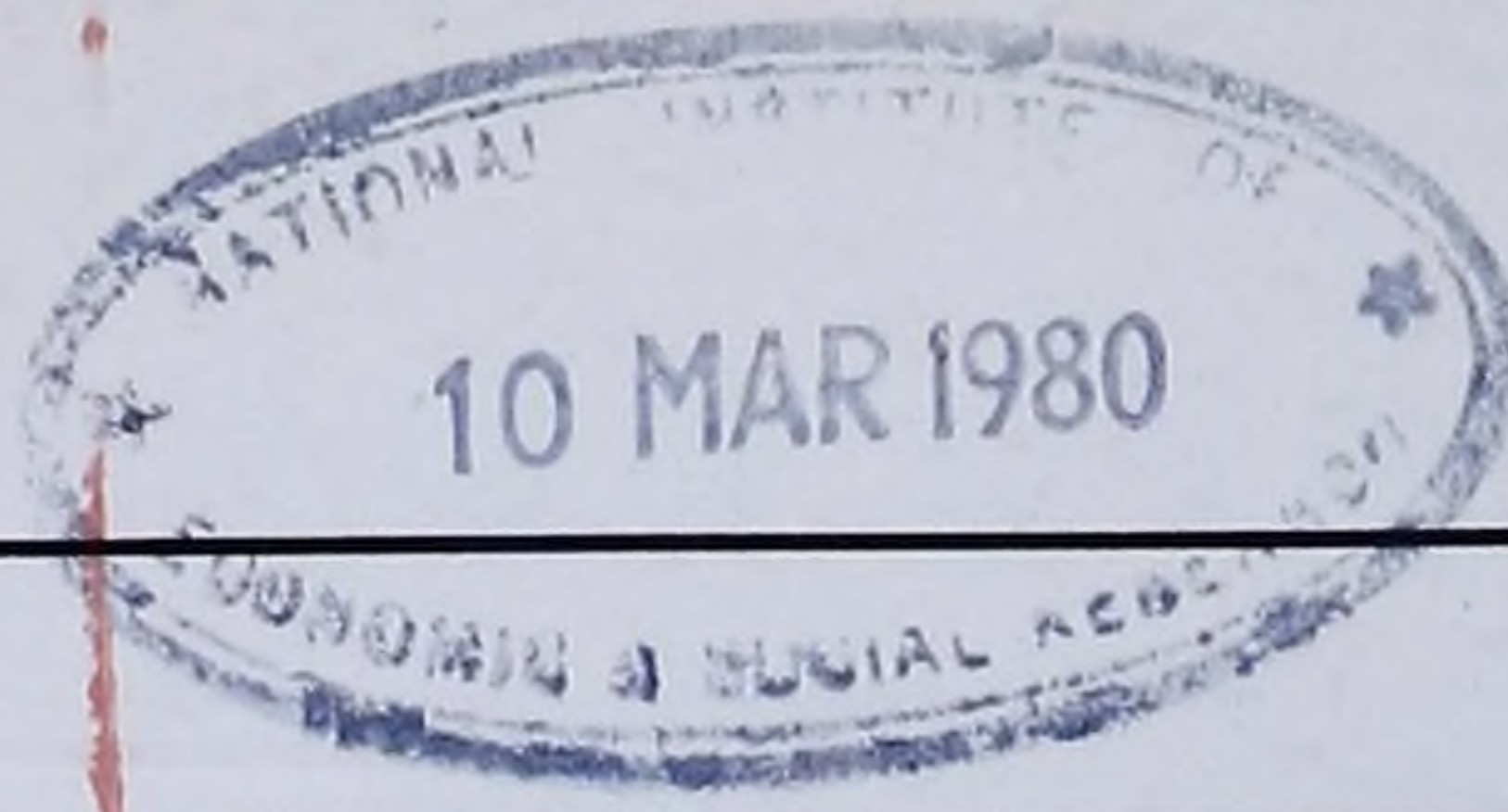


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# STATISTICAL NEWS

**Developments  
in British Official  
Statistics**



A publication of the Government Statistical Service

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# Investigations into the feasibility of a wealth survey

Graham Jackson, *Statistician*, and Cheryl Morgan, *Assistant Statistician*, Central Statistical Office

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## Background

In the first report on its standing reference<sup>1</sup>, the Royal Commission on the Distribution of Income and Wealth (RCDIW) drew attention to various gaps in the available statistics on the distribution of wealth. It was acknowledged that the so-called estate multiplier method<sup>2</sup>, in conjunction with official personal sector balance sheet estimates<sup>3</sup>, would remain the main source of data on the distribution of personal wealth. However, the RCDIW considered that a sample survey of households would provide valuable supplementary information about the wealth of the living, including such matters as family and household wealth, links between wealth and income, and the relationship between savings and inheritance. Moreover, a sample survey could aim at being representative of the whole population (though it was not clear whether much usable data could be obtained from the largest wealth-holders). It could also seek to obtain information on methods of holding wealth that were excluded or inadequately covered by the estate multiplier method, such as joint property, small estates and certain types of trusts. Thus survey data, in combination with data from other sources, could be used to improve estimates of the distribution of wealth. Consequently, the RCDIW recommended<sup>4</sup> that the Central Statistical Office (CSO) should make arrangements for a detailed wealth survey feasibility study to be undertaken. This short article outlines the various avenues of research that have been explored over the past four years by the CSO and the Social Survey Division of the Office of Population Censuses and Surveys (OPCS), in consultation with the Inland Revenue (IR). It covers two feasibility studies and related methodological investigations into sampling frames and non-response bias. A more detailed account has been prepared by the Social Survey Division of OPCS and is available on request.<sup>5</sup>

## Previous wealth surveys in the United Kingdom and elsewhere

Despite their potential value, few surveys have been carried out in this field in Britain. The best known were those conducted by the Oxford Institute of Statistics in

the early 1950s<sup>6</sup>. More recently, there have been some more narrowly based academic and market research surveys<sup>6</sup>. The Oxford surveys illustrated several of the shortcomings of this approach. First, there is non-response, a problem faced by all voluntary surveys. Moreover, surveys on financial topics tend to have a relatively low overall response rate, and evidence from the Oxford surveys suggested that this unwillingness to co-operate was stronger among the more wealthy. Correcting survey results for non-response bias is particularly difficult when, as in this case, the non-response is correlated with the key variable being measured. A second problem is to ensure that the coverage of asset types is complete. To achieve this, especially for large wealth holders, a long and complex questionnaire is required; this, in itself, could adversely affect the response rate and, more importantly, the reliability of the answers received. In the event, it is likely that some informants will give vague estimates and that some holdings will not be reported at all. Generally, considerable understatement of holdings is likely to occur<sup>7</sup>.

A number of other countries have used sample surveys to obtain data on the distribution of wealth, but a recent review<sup>8</sup> of the methods used concluded that '... they continue to manifest all manner of problems which lead us to suggest that there currently exists no satisfactory alternative to the estate multiplier method, certainly if estimates of the shares of top wealth-holders are required'.

Because of the problems outlined above, it was considered necessary to conduct a detailed feasibility study to assess the practicality of a full survey and to determine the optimal design, taking full account of cost.

## The first feasibility study (1976)

In response to the RCDIW's recommendation, OPCS carried out a wealth survey feasibility study on behalf of the CSO; a report on their findings was prepared in May 1976. The aim of the study was to test the acceptability to the public of a wealth survey, and to assess the problems of non-response biases and the quality of information obtainable. So that it could concentrate on details of

Table 1

## First feasibility study: response rate by stratum

Stratum	Original sample	Effective sample*	Interviews		Refusals		Non contacts	
	no	no	no	per cent	no	per cent	no	per cent
Self-employed	46	45	29	64	13	29	3	7
Persons with gross investment income of £100 pa or more	86	75	53	71	18	24	4	5
Persons who were self employed and had gross investment income of £100 pa or more	12	12	7	58	4	33	1	8
Others	56	50	34	68	13	26	3	6
Total	200	182	123	68	48	26	11	6

\*Excluding persons who had moved away or died since the 1974 FES Interview.

assets held, the questionnaire did not cover the full range of topics envisaged for a main stage survey; for example, it excluded reference to income and to the means of acquiring assets. Nevertheless, the resultant questionnaire was lengthy and complex; up to 112 questions were addressed to self-employed persons and 74 to others.

In order to provide a measure of the response from groups which accounted for a large proportion of wealth, it was decided to sample a disproportionately higher number of persons who were self-employed and/or who had substantial investment income. To permit analysis of some aspects of non-response bias, the sample was drawn from amongst those who had already co-operated on the 1974 Family Expenditure Survey (FES). Table 1 shows the distribution of the sample amongst the strata. The interviewers were asked to interview each sampled person and, if the person was married, the spouse too. Table 1 shows the unweighted response rates achieved. (Reweightings to allow for the variable sampling fractions made little difference to the overall response rate.) This feasibility study was not designed to produce an estimate of response to a full scale nationally representative sample. However, OPCS calculated that, given that the geographical areas selected were not nationally representative and that the individuals selected were FES co-operators, a nationally representative sample of a similar nature would be likely to achieve a response rate of only 43 per cent.

Table 1 also shows that a disproportionately lower response rate was achieved from those who, in 1974, were self-employed. Moreover, though based on a small number of cases, the response rate for those who, in 1974, were self-employed and had an investment income of £100 per annum or more was particularly low.

These findings were in line with previous research on the FES, which had shown that the response rate of self-employed heads of households was significantly lower than that for heads of households who were employees<sup>9</sup>. Further analysis of the feasibility study results suggested a steady decline in response rate as the level of investment income increased. Both these features would undoubtedly have led to significant biases in any full survey. The response rates described above have all related to the effective sample of *individuals*. In their report, OPCS concluded that expansion of the eligible unit to the tax unit, family, or household in any full survey would lower the percentage of fully co-operating units and would increase the likelihood of bias.

The most important factor affecting the level of response appeared to be the public's sensitivity to a complex financial survey. Neither the interviewers nor their unwilling respondents were greatly impressed by the argument that the survey would help to fill a serious statistical gap. It was felt that less explicit emphasis on the concept of wealth and on statistical gap-filling, and more on the relevance of the information to the needs of the Royal Commission and Government Departments, would have rendered the survey more acceptable to respondents. Another factor that could have inhibited response was the length of the questionnaire. Although, on average, it took rather less time to complete than had been expected, it was agreed that it should be shorter in any future study. In their assessment of the quality of the data, the interviewers noted that once they had agreed to take part in the survey the respondents had tried to be as helpful as possible, in most cases consulting documents when this was necessary.

The evidence of the feasibility study led to the conclusion that a full-scale wealth survey, relating to the

Table 2

## Second feasibility study: response rates for new and recall samples

	Effective sample*	totally co-operating		Partially co-operating		Refusals		Non-contacts	
		no	per cent	no	per cent	no	per cent	no	per cent
Recall sample	123	91	74	6	5	25	20	1	1
New sample	167	94	56	6	4	59	35	8	5

\*Excluding persons who had moved away or died

population as a whole, was unlikely to be a viable proposition because of the low level of response and the likely non-response biases. It was recommended that, should further work be envisaged, it should concentrate on ways of presenting the survey to the public, the method of sampling, and the topic coverage.

### The second feasibility study (1977)

Because of the low response to the first feasibility study, and the probable non-response biases, it was decided that further investigations, aimed at improving response, were necessary before a full survey could be recommended. Thus OPCS were asked to undertake a second feasibility study. This was designed to provide estimates of response to a nationally representative sample and to give clearer evidence on the merits of a follow-up sample based on the FES compared with a fresh sample selected from the electoral register. Also, drawing on the lessons of the first study, the method of presenting the survey to the public was modified; for example, the survey was called a Family Assets and Savings Survey. The questionnaire was substantially reduced by decreasing the detail required (although coverage was extended in some areas). The fieldwork was carried out in June 1977.

The feasibility study was designed with two sub-samples: a sample of households who had co-operated in the FES and a newly selected sample from the electoral register. The numbers in these two sub-samples and the response rates achieved are given in Table 2. When the initial response to the FES, i.e. 70 per cent, is taken into account, the overall response rate for the recall sample falls from 73 per cent to 51 per cent, compared with 56 per cent for the electoral register sample.

As with the first feasibility study, the major factor affecting response was a general reluctance to discuss details of personal finance. Once again the interviewers attributed part of this reluctance to the vague purpose of the survey and the resultant interviewee suspicion. As OPCS had used some of their most experienced fieldworkers on the feasibility study, it was concluded that the maximum response rate that could be obtained

at any main stage, when less experienced interviewers would have to be used, would be about 55 per cent, but that 50 per cent would be a more likely figure.

As a decision on whether to proceed with a main stage of the survey had to be taken by the end of September 1977, only a limited number of analyses on the data collected could be carried out. However, these analyses showed that substantial non-response biases were likely and that, whilst the data obtained on some asset types were relatively good, e.g. on financial assets, the valuation of personal possessions and household goods presented many problems. Because of the low response, the probability of serious non-response bias, and the problems of valuation, the CSO decided that a full survey could not be justified.

### Research into ways of raising response and ways of correcting for non-response bias

The two feasibility studies produced evidence that response rates to a wealth survey would be much lower than would normally be acceptable on household surveys, and that there was a risk of serious non-response bias. This section gives details of various methodological investigations undertaken in 1978/79 to try to find solutions to these problems.

One possible way of raising the response rate was to try to restrict the survey to the bottom 80 per cent or so of wealth holders (i.e. those individuals with a net worth of less than about £5,000 in 1974). It was argued that the wealth of the top 20 per cent of wealth holders was quite well covered by existing administratively derived statistics and that by excluding this group—that is, omitting those who were least likely to co-operate—the survey could concentrate on persons for whom little or no information was available. So the CSO, together with sampling specialists in OPCS, examined alternative methods of pre-stratifying a suitable sampling frame and selecting a truncated sample. The first was 'field screening', a two-stage process involving a preliminary simple questionnaire to eliminate the high wealth holders before proceeding to the households of prime interest. Several factors led to the rejection of this

approach, but the main reason was that it was difficult to design a suitable first stage questionnaire that would satisfactorily distinguish between 'wealthy' or 'other' respondents; a second consideration was that response might be adversely affected by giving potential respondents two opportunities of refusing.

A detailed study was made of a second method, stratifying by rateable value; but this too was ruled out. In this case the major problem was the lack of any stable relationship between the rateable value and the capital value of dwellings, the major asset of middle wealth owners. There were, for example, significant regional variations. Also, data from the second feasibility study suggested that there was only a weak correlation between rateable value and size of wealth holding and, more importantly, that this correlation was particularly poor at the proposed cut-off point (the top 20 per cent). There were, of course, the further known problems, such as outdatedness and multi-occupation of hereditaments, that complicate any use of valuation lists as a sampling frame<sup>10</sup>.

Thus the method of raising response by pre-stratification was not feasible. If a low response was unavoidable, was there any way of correcting for the non-response bias? The users of any national wealth survey would have to contend with biased data; it was therefore essential to discover as much as possible about non-respondents. One possible way was to use the General Household Survey (GHS) as a sampling frame.

The GHS achieves a response rate of around 80 per cent, though for the most useful variable, income, the response is 70 per cent. Thus, for GHS respondents, extensive information would be available on the characteristics of non-respondents to a follow-up survey on wealth. Using GHS data, it would be possible to attempt to correct for some aspects of non-response bias in a follow-up survey on wealth. One possibility would be to re-weight the distribution of key variables in the survey on wealth to that of the original sample of GHS respondents. Such a method would, of course, depend on identifying GHS variables that were closely correlated with wealth.

A more sophisticated approach would be to impute the missing values of key assets (e.g. house, car, investment income, and life insurance) for non-respondents; the imputations being based on correlations between GHS variables and the values of the key assets for the wealth survey respondents. Various imputation methods were considered but, even supposing that correlations existed, all seemed to be unsatisfactory for the size of sample under consideration, i.e. less than 5,000. Additionally, all such methods assume that the relationship between wealth and other variables among respondents is similar to that

among non-respondents. Since the non-response bias, for which correction is being made, could well apply to the observed relationships forming the basis of the correlation, this approach was circular and so it was rejected.

Thus it was decided that, while a GHS follow-up could provide some useful information on differential response, it would be of little help in correcting for non-response bias, which was the main problem. So the follow-up idea was abandoned.

### Conclusion

Early in 1979 the various research projects outlined above were reviewed and it was decided that a detailed wealth survey would not be successful or cost effective. It was thought that the most promising way forward was to design a set of small interlocking studies, covering key areas such as dwellings, consumer durables and savings. In this way survey information on wealth could be used, in conjunction with personal sector balance sheet data and the capital transfer tax derived estimates, to expand knowledge of the distribution of wealth in the United Kingdom. This approach remains to be explored when resources are available.

### References and notes

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# Secondary Education in England

Stephen D Shenfield, formerly Assistant Statistician, Department of Education and Science

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## Introduction

This article describes the National Secondary Survey (NSS), a survey of secondary education in England carried out by Her Majesty's Inspectors of Schools (HMI) complementing the National Primary Survey carried out during the same period. (See 'Primary education in England', Michael Stock, *Statistical News* No. 44, February 1979.) The NSS was focussed on the education of pupils in the fourth and fifth years of secondary school, and particularly on four aspects of the curriculum: language, mathematics, science and the personal and social development of pupils. The report was published December 1979. We discuss here some aspects of the design of the survey and of the analysis of the data yielded by it.

## The sample

In 1975 a sample was selected of 10 per cent of all the secondary schools in England based on national statistics as at January 1974 (excluding sixth form colleges and middle deemed secondary schools), stratified by type of school (secondary modern, grammar, comprehensive) and Inspectorial division (HMI Regions). However, the survey visits were carried out by HMI over three academic years: 1975-76, 1976-77 and 1977-78. Because of school reorganisation during this period, constraints on the schedule of HMI visits and for other reasons the group of 384 schools actually visited differed in certain characteristics from the original sample. Occasionally particular circumstances in individual schools led to the substitution of comparable schools. Much more significant were closures of schools or reorganisation. Where the majority of pupils in one of the original schools went to what was, in essence, the same school under a different name, or were absorbed into an amalgamation, the new school was substituted. Thus to a certain extent the sample followed trends in the population. It was often not possible to find or use a school's direct successor. In such cases, schools with characteristics comparable to the old schools were chosen.

The size distribution of the sample is much closer to the 1978 population distribution than to that of 1974. There appears to be a modest bias in the overweighting

of large schools. This is not likely to have had a serious effect on the findings of the survey, since analyses by size of school have shown few correlations with other important variables.

To provide estimates of sampling error, specially written computer programmes were used to calculate standard errors of figures derived from the sample, both for figures relating to groups of schools and for figures relating to groups of teachers. The teachers in the schools of the sample were treated as a cluster sample of the national population of teachers.

## The methods of data collection

Several kinds of information were collected from the schools. HMI made very substantial qualitative reports describing and assessing many aspects of each school. Quantitative information was collected on several forms: much of it was hard fact—for example, size of school, details about teachers; some of it was based on the judgments either of the school Head—for example, ability range of the school, number of slow learners, nature of the school's catchment area, severity of various problems; or on the judgment of HMI—for example, gradings of the performance of the school.

The main forms covered the following types of information:

- a. general school characteristics—numbers of pupils, type, age and ability ranges, catchment area, etc.;
- b. special problems faced by the school—indiscipline, truancy, vandalism, etc.;
- c. details of each teacher in the school—qualifications, sex, age, length of teaching experience, subjects taught, responsibilities, deployment by year group, etc.;
- d. gradings assigned by HMI for the standard of provision for and response by the pupils in language, mathematics and science (separately for three ability groups within each school); and for the provision for pupils' personal and social development and their response to it;
- e. gradings assigned for different aspects of language—reading, writing, oracy;
- f. details of curricular organisation;
- g. features of and facilities for science teaching; and

h. features of and facilities for mathematics teaching.

Due to inadequate piloting, some questions were not clear and unambiguous, making the data yielded by them very difficult to interpret or unusable. For example, the question about the previous type of each comprehensive school prior to reorganisation was ambiguous for schools formed by the amalgamation of two or more schools of varying types.

Some of the data collected were processed and analysed by hand, some by computer. The curricular data were processed mainly clerically to ascertain average sizes of teaching groups and information on the extent and nature of the curricular common core, the options system and the extent of provision for various subjects.

### The computer system

Due to the large amount of data per school, it was necessary to store different types of data on separate computer files: the smaller files were held on filestore and the larger files (teachers' data, Mathematics Supplement) on magnetic tapes. The computer package used allowed both for the derivation of new variables from those taken from the questionnaires and for the temporary juxtaposition of data from different files by means of data arrays for the purpose of cross-analysis.

Computer retrieval and analysis of data were carried out mainly by means of Package-X, the statistical computer package specially developed for the use of the Government Statistical Service. The provision of selected information required for the writing of reports and the checking of hypotheses, in the form of routine listings and tabulations, comprised much of the work. The capacities of Package-X were stretched to their limit in two respects:

- a. the package operated on data sets much larger than those on which it is usually used; and
- b. the programming facility of the package was fully used to create and relate to one another variables referring to different levels of the data (teachers, schools, groups of schools). Thus the teacher data were used to derive several measures of staffing standards—such as pupil-teacher ratios, contact ratios, measures of match between subjects of qualification of teachers and the subjects taught—for schools, groups of teachers or groups of schools.

### Exploring influences on school performance

The most important group of analyses of the data was the attempted elucidation of the inter-relations of school characteristics. The main enquiry of this type was that into possible influences on school performance, as indicated by the HMI gradings. Such patterns of cause and effect can never of course, be established unequivocally by statistical analysis alone, which only explores the patterns of statistical association among variables. Even this was made difficult and tentative by the limitations on the range and reliability of the data and by the complex interdependence of variables.

The non-continuous nature of most of the variables available prevented any great application of or reliance upon multivariate methods. It was thus necessary to explore relationships by the study of suitably specified tables. In exploring the relationship of any two variables, efforts were made to reduce the distorting influence of other important intervening variables by isolating, for comparison, groups of schools which were fairly similar in respect of such third variables. In investigating the relationship of different characteristics to school performance, it was found by experience that the intervening variables most important to control were type and ability range of the school and the type of its catchment area.

These efforts were severely constrained both by incomplete advance knowledge of which variables needed to be controlled and by the need to obtain comparison groups large enough for the reliable application of statistical tests. (Almost always comparison groups were drawn to comprise at least thirty schools.) Often, even tentative conclusions could be drawn only for the largest category of schools: those comprehensive schools which covered the full ability range.

The choice of statistical tests to be used in comparing the frequency distributions of two groups of schools by some variable depended on the nature of that variable. Only a few of the variables in the survey, such as size of school or pupil-teacher ratio, could reasonably be regarded as continuous variables. Only for these variables was the calculation of means and standard deviations a meaningful procedure, and the use of tests depending on such calculation, such as the t-test for differences between means, justified. Most of the variables of interest were discontinuous categorical variables. The categories of some of these could be ordered: examples were the HMI gradings (A, B, C, D, E, F)<sup>1</sup> and the severity of special problems (no problem, minor problem, considerable problem, serious problem). The categories of other variables, such as type of catchment area (rural, inner city, established manufacturing, prosperous suburban, less prosperous

1. HMI separately assessed provision and response, in all cases, in six gradings defined as:

- A. Of exceptionally high quality
- B. Very creditable but not meriting grade A
- C. Acceptable without serious reservation
- D. Acceptable but with some important reservations
- E. Unsatisfactory but not meriting grade F
- F. Of poor quality giving very serious cause for concern

suburban), could not be ordered. Chi-square tests were used to compare distributions by both ordered and non-ordered categorical variables: frequently the overall 2xk test was supplemented by a series of 2x2 tests, based on different divisions into 2 of the distributions. It was decided that the most suitable test for use with distributions of ordered categorical variables was the Kolmogorov-Smirnov test; this was sometimes used also with interval distributions of continuous variables.

A special computer programme—COD, for 'compare distributions', was used to perform statistical (Kolmogorov-Smirnov and Chi-square) tests to compare the distributions by an HMI grading of two groups of schools. The 3 Chi-square tests on whose results some reliance was placed were those based on the following divisions into 2 of the scale: (A and B) versus (C, D, E and F); (A, B and C) versus (D, E and F); (A, B, C and D) versus (E and F), and the greatest reliance was placed on the second of these. Significant differences indicated by some tests but not confirmed by others were considered tentative.

The results of applying these tests in each analysis were summarised on a chart showing the level of statistical significance, and the direction, of significant differences between different pairs of groups of schools, for each of the twenty-two main gradings. As a few spurious 'significant differences' must be expected to arise by chance even in the absence of real differences, conclusions were drawn chiefly from a study of the overall patterns revealed by the charts. Isolated results which contradicted a general pattern were considered likely to be spurious, and no conclusions were drawn from them.

The preceding discussion is concerned with comparing the characteristics of distinct groups of schools. However, some analyses compared the distributions of a single group of schools on two or more different variables—namely the comparisons of distributions of different gradings with one another (provision gradings with corresponding response gradings, gradings for the more able with corresponding gradings for the less able, gradings for science with corresponding gradings for mathematics, etc.). For this purpose the Kolmogorov-Smirnov and Sign tests were applied to single distributions of differences between the pairs of gradings. Such a distribution shows the number of schools for which the two gradings are the same, the number of schools given higher scores on the first grading than on the second, and the number of schools given higher scores on the second grading than on the first. The Kolmogorov-Smirnov test showed whether this distribution differed significantly from a hypothetical distribution in which all schools are given the same score on one grading as on the other. When the Kolmogorov-Smirnov test gave a significant result, application of the Sign test indicated the

preponderant direction, if any, of the differences between the two gradings. A computer programme called CODPAIR was written to carry out these tests.

Many of the variables investigated, such as size of school, size of class and length of teaching experience of teachers, were not found to be associated with school performance. Such negative results are just as valuable as positive ones, and they suggest that the most important determinants of performance lie outside the characteristics usually covered by quantitative measures. This idea is consistent with many other findings from educational research. Future work may thus involve a more experimental search for factors perhaps given too little attention to date.

### **Multivariate analyses**

A number of analyses of the data—cluster analyses and factor analyses—were carried out using the computer package Programmed Methods for Multivariate Data (PMMD). Although most of these analyses exposed only a lack of underlying structure in the types of data collected, some of them did yield suggestive results.

Where applied, factor analysis required the treatment of ordered variables such as the gradings as if they were continuous. Strictly speaking this was an illegitimate procedure, but the fact that cluster analyses and factor analyses on the same data gave consistent results suggests that the factor analyses were not devoid of all value. It was discovered, for example, that the most informative short summary of twenty-two main gradings of school would generally comprise just five composite gradings—one for language, one for mathematics, one for science, one for personal and social development and one for the less able ability group across the curriculum.

However it was not possible to neglect even experimentally the non-continuous nature of most of the school variables, and this hindered analysis at many points. The suggestiveness of some of the survey results, obtained by such means as were valid, may justify efforts to gear future work of this sort more closely to the multivariate approach, for example by attempts at multi-dimensional scaling.

### **Conclusion**

The experience of the NSS showed some of the potentialities of survey analysis using Package-X, and many useful results were obtained. It was also learned that still greater advantages could be reached by a more critical approach to the design of questionnaires, based on clear motivation, and by more effective planning.

### **Reference**

*Aspects of Secondary Education in England* (HMSO, 1979) (Price 6.75net)

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# Changes in Scottish drinking habits and behaviour following the extension of permitted evening opening hours

Dr David Bruce, *Statistician, Scottish Office*

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## Introduction

On 13 December 1976 legislation came into force which permitted public houses and hotels in Scotland to remain open for an extra hour—till 11 pm rather than 10 pm. This paper looks in turn at various monitors of social behaviour before and after the change.

Since December 1976 there have been other changes to Scottish licensing laws. The most significant of these from the consumer's point of view was probably the Sunday opening of public houses which took effect progressively from October 1977. This paper, however, is confined to the effect of the extra hour of opening in the evening.

The extra permitted hour of opening was discretionary, in that licensed premises were not obliged to stay open until 11 pm. Information on actual closing times adopted was obtained from the Survey of Licensed Premises described below. Some bars took no advantage of the relaxed restrictions and continued to close at 10 pm; others closed at 10 pm or 10.30 pm on weekdays but remained open until 11 pm at weekends; and a substantial number took full advantage of the new laws and stayed open until 11 pm every day. Thus the effect of the new legislation was not simply to change the closing time from 10 pm to 11 pm but to produce a variety of opening hours in licensed premises.

## THE MONITORS

### Scottish Licensing Laws Survey

This survey was carried out by the Office of Population Censuses and Surveys (OPCS) on behalf of the Scottish Home and Health Department and was based on a representative sample of adults living in the four major cities and the central belt of Scotland. The sampling frame accounts for about 80 per cent of the Scottish adult population. 1,656 informants were interviewed before the change in the law, and again about three months after the change, and were asked to recall their alcohol consumption over the previous seven days.

For persons who drank in either period there appears to be a slight reduction in the average alcohol consumption in the second measured week compared with the first. This reduction is not, however, statistically significant. The conclusion therefore is that there was no discernible overall change in the level of alcohol consumption. Estimating the impact of the extra hour was complicated by the fact that a number of informants mentioned drinking on licensed premises after normal permitted hours in the period before the new law. However, measurement of *additional* late drinking in the second measured week showed that about one in eight more (of those who drank in both periods) drank on licensed premises after 10.15 pm on Fridays and Saturdays in the second week. When those who frequent public houses or bars were asked whether they ever drank in a pub after 10 o'clock only among the younger ones was there a majority claiming to drink at that time of the evening. A check on the starting time of evening drinking showed some evidence of later starting especially on Fridays and Saturdays. But there was no evidence of any change in the small proportion who drank after work in the 5-7 pm period.

To find out whether people were less likely to continue drinking at home when the pubs closed an hour later, the number of drinking occasions at home after 10.15 was compared between the two field periods. However, there was no evidence of any change in the amount of late drinking at home after the pubs had closed in the second period. There was some evidence of a small decline in the rate of alcohol consumption on licensed premises of about one alcohol unit (equivalent to  $\frac{1}{4}$  of a pint of beer or  $\frac{1}{2}$  a measure of spirit) per hour.

To give some general indication of the use of licensed premises a summary was made of the number of informants to be found on such premises on each evening of the two measured weeks. A count of the number of men to be found on licensed premises in each evening hour shows that for Friday and Saturday evening there was some increase later in the evening and of a reduction earlier.



Since it had been suggested that the new law would allow people to undertake other activities in the evening and still have time for a drink, a comparison was made between activities before the first evening drink in the two survey periods. However, the results showed no evidence of a change between the two periods. What the figures did show was that more than three in four drinkers did not go out anywhere prior to their first evening drink but those who did were most likely to have been visiting friends, working late or at a sporting activity. An analysis was also undertaken for activities after the last drinking occasion on any given evening of the measured weeks; but the only clear finding in both periods was that at least 90 per cent went straight home.

It is known that surveys relating to drinking habits tend to understate alcohol consumption especially among heavy drinkers. This bias would not affect the comparison between the two stages of the survey.

The above results of the survey have related to changes in the volume and patterns of alcohol consumption and of associated social habits between autumn 1976 and spring 1977. Insofar as they also provide a picture of Scottish drinking they have been compared on a limited basis with the results of the 1972 fieldwork from the OPCS Scottish Drinking Habits Survey. The most noticeable change found between 1972 and 1976 was the rise in the proportion of regular drinkers who were young females.

As part of the survey, people's evaluation of the later closing time and their views on the way they personally had been affected by the change were obtained. About half of those interviewed were in favour of the later closing time, a third disapproved of the change and the remainder would not say or give a qualified answer. Younger people were much more likely to be in favour of the change than were older people and within each age group more of the men, than of the women, approved of the change.

The two most frequently mentioned advantages were that drinking in pubs would become more leisurely and that people would be able to spend longer at home before they went out to a pub. The majority of the people who disapproved of the change said they never went to pubs.

The most frequently mentioned disadvantage of the extra hour was that it would lead to more drunkenness and disturbances, although a few people considered that these problems would be reduced. An appreciable proportion of the people who disapproved of the change felt that there would be an adverse effect on family life resulting from husbands (or older children) spending longer away from home. This contrasts with the views of

those who were in favour of the change who felt that people would spend longer at home before going out to the pub.

Only about one tenth of those interviewed thought that the extra opening hour had made a difference to the way they spent their time in the evenings. Most of these people felt that they now went out to the pub later in the evening; this is consistent with behavioural changes reported.

### Survey of Licensed Premises

A survey of bars was carried out to measure differences in patterns of sales following the extension of permitted hours of opening. A sample of premises owned by two large brewers provided information on cash takings for various periods of the day and for each day of the week over 3-week periods before and after the change in the licensing laws. As explained earlier, the extra permitted hour of opening was discretionary and of the 111 individual bars which took part in the survey 41 took full advantage of the extra hour and remained open until 11 pm every day.

The Report of the Departmental Committee on Scottish Licensing Laws (chaired by Dr Clayson)<sup>†</sup> and the subsequent changes in the Scottish Licensing Laws were directed towards a general relaxation in attitudes towards alcohol. One of the methods intended to achieve this, in the form of a reduction of the accelerated drinking towards the end of the evening, was the provision of the extra hour's drinking time. Figure 1 shows the 'before' and 'after' picture of average bar takings per hour for each time period for all bars staying open until 11 pm. Despite price increases of about 8.5 per cent between the two stages of the survey, takings per hour during the evening are consistently lower after the changes in law for corresponding time periods. Furthermore the 'after' level of takings between 10 pm and 11 pm is substantially lower than the 'before' takings between 9 pm and 10 pm. A possible measure of the acceleration in drinking towards the end of the evening is the percentage increase in takings in the last half hour compared with takings in the penultimate half hour: the 'before' increase in takings was 39 per cent whereas the 'after' increase was only 17 per cent. In the sample, therefore, the acceleration in drinking towards the end of the day was reduced and this reduction is statistically significant.

The results stated above are evident for each day of the week (including Sundays) and for bars grouped by neighbourhood location, that is, town centre, country or housing estate.

The findings of this survey must, however, be regarded with some caution since it has not been possible to verify that the sample is representative of all bars in Scotland. Also, total takings in bars do not reflect on

<sup>†</sup>Report of the Department Committee on Scottish Licensing Law (Cmnd 5354) (HMSO 1973).

individual drinking habits since the number of individuals drinking at any time will vary.

### Drink related offences

Statistics on the incidence and timing of certain offences made known to the police where alcohol is germane to the offence (drunkenness and drunk driving) and where alcohol is thought often to be a major precipitatory factor (e.g. breach of the peace) have been examined on an annual and monthly basis. Because the level of the offences known is dependent on the level of police availability and public attitudes, decreases in numbers which may at first sight appear to suggest a very favourable reaction to the change have to be interpreted with caution.

The only evidence found from an examination of the figures that the extra hour had a possible effect on the total number of offences known to the police is a drop, in the three months immediately following the change, of about 21 per cent in the number of cases of drunk driving compared to a 15 per cent drop in motor vehicle offences generally in the period.

The timing of offences changed, in that the percentage occurring between 10 pm and 11 pm fell by about half in the case of drunk driving and by 1/3 in the case of drunkenness offences; these decreases were more or less balanced by increases between 11 pm and 2 am.

### Road accidents

Statistics on the number and timing of road accidents involving injury reported by the police are perhaps less dependent on public attitudes and police availability than are offences. Road accidents (other than those where a driver refused or fails a breath test) are however probably less dependent on alcohol abuse.

Examination of the statistics on timing and numbers provides no evidence that the extension of licensing hours had had an adverse effect on total numbers of accidents. As with offences the percentage occurring between 10 pm and 11 pm has dropped, in this case by 1/3; this drop was more or less balanced by an increase between 11 pm and midnight.

### Sales of alcohol

Results from the Scottish Licensing Laws Survey indicated that there had been no significant change in alcohol consumption based on a sample of less than 2,000 people and measured over one week's drinking before and after the change in the laws.

An examination of market research data on individuals' drinking habits (obtained by interviewing 25,000 adults annually in Great Britain) for several years past has shown a higher degree of variability from year to year in the figures for Scotland than the maximum degree of

change suggested by the Scottish Licensing Laws Survey.

Information is available on beer sales (sales as distinct from individuals' stated consumption) from figures provided for Scotland by the Brewers' Association of Scotland and for the United Kingdom by HM Customs and Excise.

Table 1

	Beer sales in bulk barrels <sup>1</sup> (000's)		
	United Kingdom	Scotland	Scotland sales as a percentage of UK sales
1970	34,441	2,802	8.14
1971	35,783	2,995	8.37
1972	36,646	3,118	8.51
1973	38,273	3,315	8.66
1974	39,098	3,406	8.71
1975	40,100	3,553	8.86
1976	40,652	3,659	9.00
1977	40,262	3,668	9.11

<sup>1</sup>A bulk barrel is equivalent to 36 gallons

The Scottish sales are shown graphically at Figure 2 as a percentage of UK Customs and Excise figures. This shows that the figure of beer sales in Scotland represents a fairly steadily increasing percentage of the UK sales over the period and that the trend up to 1976 continued into 1977. Since there were no major changes in the licensing laws other than in Scotland between 1976 and 1977 these figures suggest that the change in licensing laws in Scotland had no significant effect on total beer sales.

### Summary and conclusions

Despite the extra permitted hour of opening the OPCS survey detected no change in the average alcohol consumption of drinkers. Figures of total beer sales in Scotland during 1977 are very similar to those for 1976.

The OPCS survey showed some evidence of a small decline in the rate of alcohol consumption per person equivalent to about 1/4 of a pint of beer per hour. The Survey of Licensed Premises supported this finding by showing that, despite price increases between the two stages of the survey, till takings per hour were consistently lower after the changes in the law compared with beforehand for corresponding time periods.

The Survey of Licensed Premises showed a significant reduction in the pattern of acceleration in drinking towards the end of the evening. Thus although the 'beat the clock' attitude to drinking has not disappeared it has at least diminished.

Of those interviewed in the OPCS survey about half were in favour of the later closing time while a third disapproved. Younger people were much more likely to be in favour of the change than were older people; more men than women approved of the change.

Examination of statistics of drink related offences known to the police provides no evidence of increased numbers as a result of the extra permitted hour's

drinking and there is some evidence of a decrease possibly associated with the change. The distribution of the timing of offences shows substantial decreases between 10 pm and 11 pm with corresponding later increases. Very similar results are found from an examination of road accident statistics.

Thus, taken together, the monitors examined suggest that the extension of permitted hours of opening of licensed premises has not produced adverse effects on drinking habits and public behaviour and has possibly been beneficial in certain respects.

### Acknowledgements

The author wishes to acknowledge the work of Mr D M Wann on the Survey of Licensed Premises and the help of Tennent Caledonian Breweries, Scottish and Newcastle Breweries, The Brewers Association of Scotland, Strathclyde Police and numerous colleagues.

### Note

The full results of the OPCS Scottish Licensing Laws Survey, including a description of the methods and research design, is to be published by HMSO later in the year. The full report will also contain results of a further survey (based on the same sample of respondents) which was designed to monitor the effects of Sunday licensing of public houses, but will also assess the longer-term effects of the extra hour.

Copies of further reports on the Survey of Licensed Premises and on Drink Related Offences and Road Accidents are available from the author at Room 5/54 New St Andrew's House, Edinburgh EH1 3SX.

Copies of further reports on the Survey of Licensed Premises and on Drink Related Offences and Road Accidents are available from the author at Room 5/54 New St Andrew's House, Edinburgh EH1 3SX.

Figure 1 Bar takings before and after the extension of permitted hours in each time period (Monday – Saturday) for all bars which remained open until 11:00 pm (based on sample of 26 premises with 41 bars)

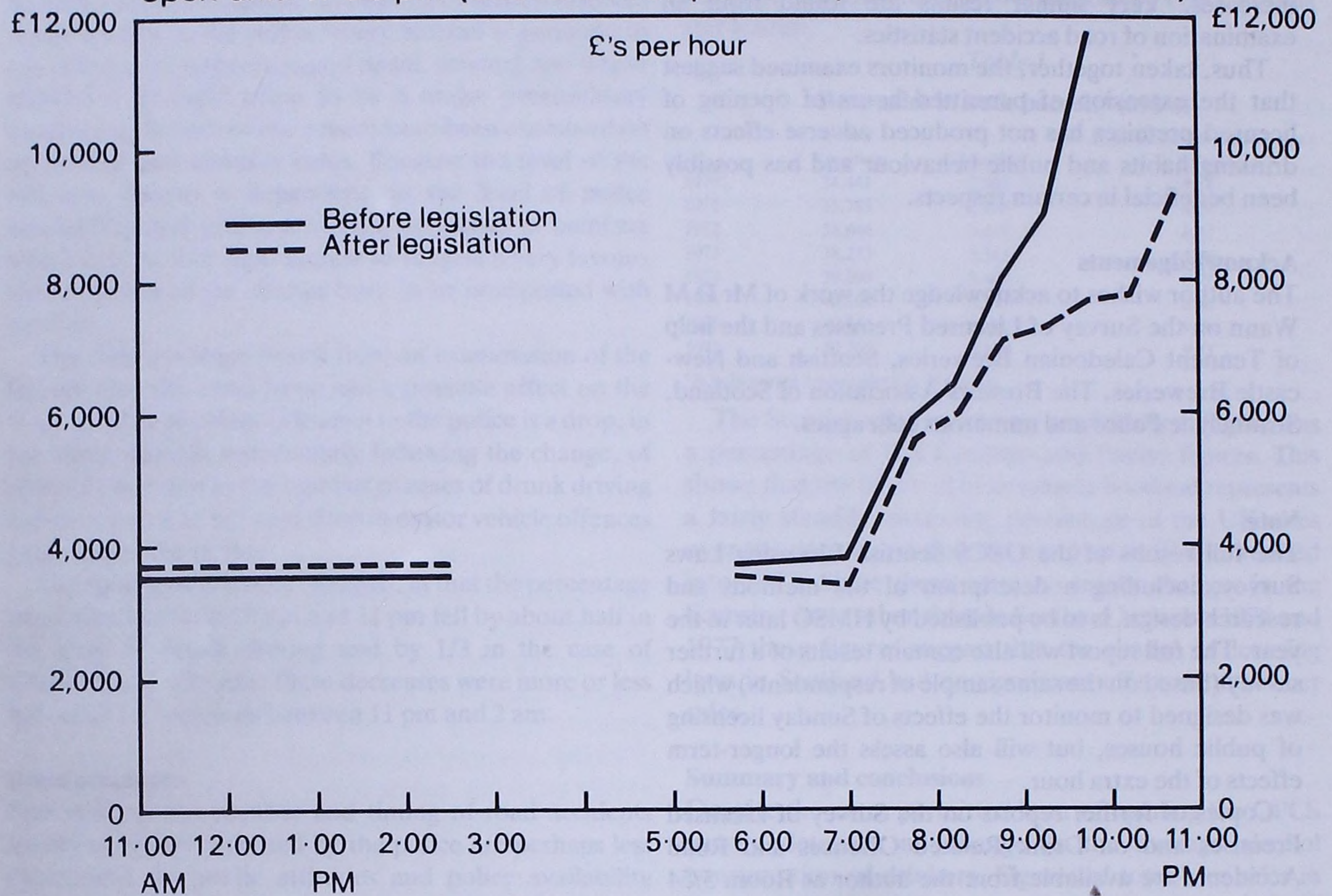
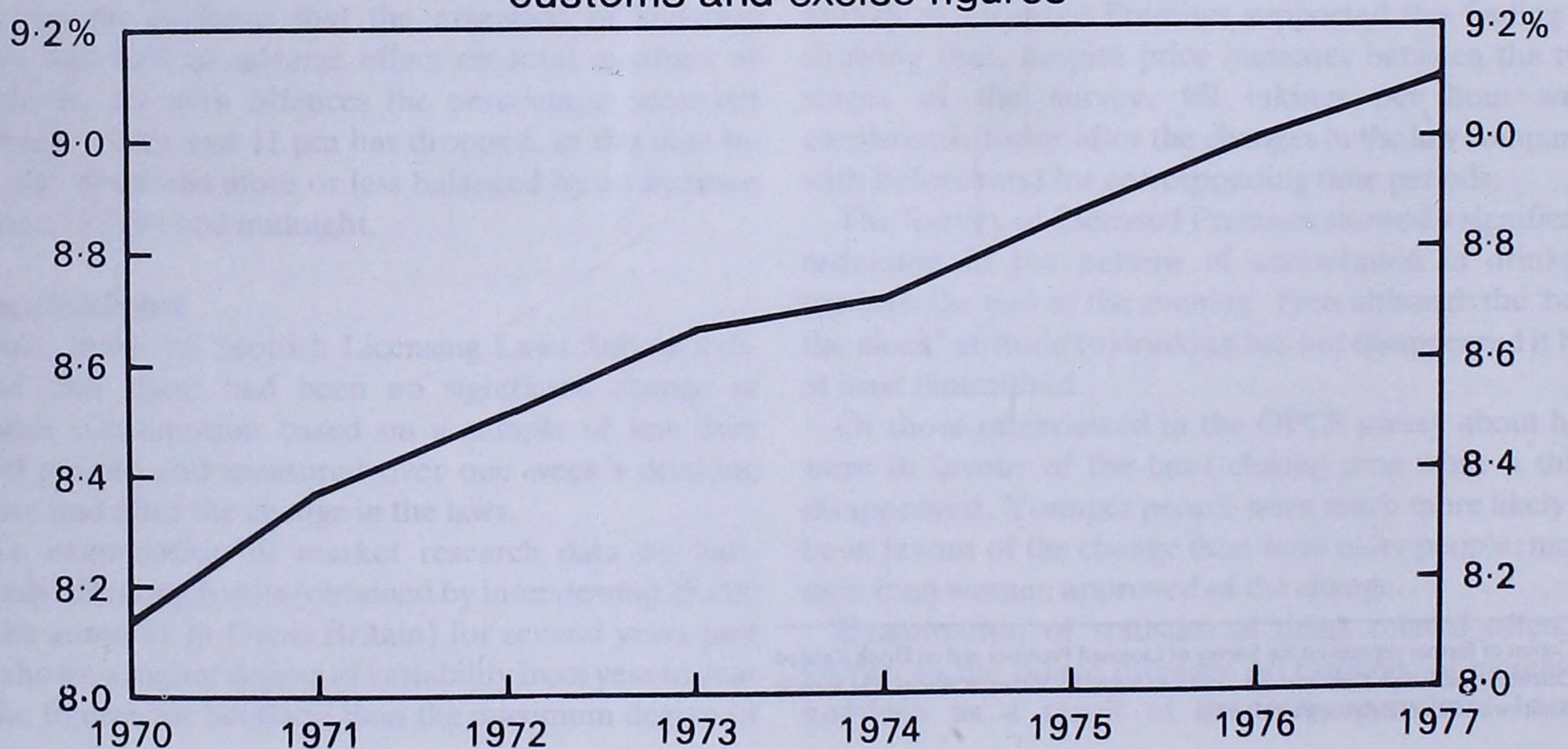


Figure 2 Sales of beer in Scotland as percentage of UK customs and excise figures



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# Migration assumptions for sub-national population projections

Peter Girling, *Principal Research Officer* and Chris Morrey, *Senior Research Officer*,  
*Department of the Environment*

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## Summary

This article is concerned with the internal migration assumptions used in the official sub-national population projections for England. It reports on the observations of local authorities and the steps taken to establish their validity. Questions remain on the significance for planning and resource allocation activities of the differences between centrally and locally prepared population projections.

## Introduction

The official sub-national population projections are prepared and published for individual local authority areas by the Office of Population Censuses and Surveys (OPCS). The geographical areas used in the most recent projections are the economic planning regions, counties, metropolitan districts and London Boroughs and the results for these are re-aggregated to give projections for regional and area health authorities. Three projection series have been prepared using the current methodology and these were based on the estimated population at mid-1974<sup>1</sup>, 1975<sup>2</sup> and 1977<sup>3</sup>.

Official population projections are based on assumptions about births, deaths and migration. At the sub-national level attention has focussed upon the role of migration in the absence of substantial increases in the population arising from an excess of births over deaths. The quality of internal migration data available on a regular basis is limited, placing more emphasis on knowledge of local circumstances in the preparation of the migration assumptions. Consequently, the Department of the Environment (DOE) has the responsibility for setting these assumptions, taking into account the views of local authorities and other government departments. To achieve consistency with national population projections, these assumptions are controlled from a national to a local level: firstly, for regions which act as controls for counties, and secondly, for metropolitan counties, which then become the controls for metropolitan districts. A brief description of the methods and assumptions used in preparing for the

1977-based projections is available elsewhere<sup>4</sup>.

The early series of projections produced a substantial number of observations from local authorities and most of these were directed at the internal migration assumptions. Their concern about the assumptions can be expressed as the following propositions:

- i. the local authorities themselves could produce better migration assumptions;
- ii. the hierarchical controlling of assumptions from national to local level produced unrealistic controls at a regional level which made it very difficult to develop acceptable local area migration assumptions; and
- iii. the age and sex assumptions were distorting the demographic structure of the projected populations for some local authority areas and this had consequences for the derivative DOE household projections and Department of Employment labour supply projections.

Stage I of this article reports the assessment made by DOE of these three propositions which concerns the inputs to the official projections. Stage II assesses the outcome in population terms of adopting the migration proposals submitted by counties and compares the results with the official projections.

## Arrangements for the 1977-based population projections

In developing the internal migration assumptions for the 1977-based series, DOE invited local authority participation at an earlier stage, before the inter-regional migration levels had been considered. The objective of this additional stage in the consultation process was to obtain the local authorities' assessments of the factors which were likely to influence the migration trends in their areas. They were also asked for advice on local information sources and on the age and sex structure of future migration flows. All the counties and all but two of the metropolitan districts provided net migration proposals for their areas. Most submissions were carefully argued and provided valuable insights to DOE.

### **Stage I assessment of the local authority migration proposals**

In assessing the local authority proposals the DOE was concerned that they should conform, in aggregate, to the net national migration control and that, individually, they should accord with the available statistical evidence. The local authority migration proposals are summarised in Table 1. In total they imply a net migration inflow of 61,000 per annum in the period 1977-81, compared to the national migration assumption of a 17,000 per annum net outflow. The difference of 78,000 per annum provides a measure of the inconsistency between the aggregate local authority proposals and central government's assumption for England as a whole. Similar but smaller differences affected the years after 1981.

Further analysis of the local authority proposals demonstrates the main sources of this inconsistency. These concern the level of net migration outflow from the main metropolitan areas and London and the likely distribution of the net inflows between the surrounding shire counties. In essence, the shire counties anticipated a return to the higher net migration gains associated with the early 1970s, whereas the metropolitan areas allowed for a continued reduction in their net migration losses. The largest differences of view were concentrated in the South East and West Midlands as shown in Table 1. The different interpretations given by local authorities to migration movements were primarily confined within rather than between regions. Hence, the use of regional migration controls was not the major source of difficulty in producing migration assumptions at the local level.

Turning to the age and sex composition of the net migration flows, few local authorities were able to offer guidance to OPCS. Local sources of migration information were seldom quoted which could compete with the centrally produced data series.

The analysis of the local authorities' net migration proposals for the 1977-based series of official projections suggests that:

- i. local authorities cannot readily produce net migration assumptions capable of direct incorporation into the official population projections without modification;
- ii. the regional level of control on assumptions is not a major source of difficulty in producing consistent assumptions at a local level; and
- iii. the limited nature of detailed migration data means that few authorities are able to offer substantially different assumptions about the age and sex composition of the migration flows.

### **Stage II assessment developing alternative population projections**

The assessment of local authority migration proposals was taken a stage further by preparing alternative population projections incorporating their assumptions. The purpose was to establish the consequences, in population terms, of adopting the local authorities' views about migration. This was undertaken in two steps. First, OPCS prepared manually a set of projection estimates for all the counties of England, using the local authority migration assumptions with appropriate adjustments to the total population to take account of the natural increase associated with the migrant population. Second, two further sets of projections using the full OPCS cohort-survival computer model were prepared for selected counties where the differences of view were substantial.

The alternative population projection estimates for all the counties are presented in Table 2. They resulted in a total population for England 2 per cent larger than the official projection at 1991, i.e. +922,000. The distribution of this increase varied across England, representing less than 1 per cent in the North but rising to 3.3 per cent in the South East. Only in the counties of Buckinghamshire and East Sussex was the projected population more than 5 per cent higher than the official projection at 1991. These appear small discrepancies, although they could, if used as forecasts by central government agencies, produce some shift of resources towards the South East.

It is necessary also to consider the projected changes in population separately from the total population stock existing at the start of the projection period. This approach enhances the differences between the projections based upon the county rather than the official migration assumptions. For example, the migration assumptions submitted by the shire counties imply an aggregate population growth 32 per cent greater than the official projections by 1991. Such relatively large projected changes at the margin could have marked consequences for resource allocations, particularly for the shire counties with growing populations. In some counties like Hampshire, Oxfordshire and Staffordshire, the county migration assumptions suggest that their additional population could be 50 per cent greater by 1991 than the officially projected rise, representing an extra 25,000 to 50,000 population.

For the second step, the impact of the local authorities' migration assumptions was explored in more detail for Berkshire, Hampshire, East Sussex and West Sussex. Two sets of detailed population projections were prepared by OPCS. One set used the county migration assumptions for total persons, but incorporated migrant

age and sex structures similar to those adopted in the official series. The other set employed the counties own age and sex structure assumptions for migrants. For the four counties examined, these two sets of projections were not substantially different and so only the results of the latter are presented. To complete the analysis, derivative household and labour supply projections were also prepared.

The three sets of population, household and labour supply projections presented in Table 3 provide three further insights. Firstly, the use of local authority migration assumptions, incorporating their own migrant age and sex structures, confirms the projection estimates (given in Table 2) which revealed small differences in projected total populations from the official results. Secondly, differences for particular age groups are not significantly higher than those for total population. For example, the largest difference between the county and official projections is 11 per cent at 1991 for the 11-15 age group in West Sussex. Thirdly, the marginal changes in particular age groups amplify the projected numbers of households, by up to 3 per cent in the case of Berkshire, but have little effect on the labour supply projections.

Examination of the alternative county projections suggests the following conclusions:

- i. the county migration assumptions produce only small variations from the official projections in the total population for England and for individual counties;
- ii. the differences in total population numbers are reflected throughout most age groups and in the derivative household and labour supply projections; and
- iii. in contrast, differences in the projected marginal population changes are much greater than the changes in total population stocks.

The entry of population projections into resource allocation is complex and not well documented. Whereas current population estimates influence annual revenue allocations, population projections, when used as forecasts, have some influence over medium term capital planning. The analysis of the alternative projections indicates that plans related to population change at the margin will be much less securely based and more open to challenge than plans related to total population.

#### Acknowledgements

The authors wish to acknowledge the very considerable assistance given by OPCS, first, in providing estimates of future total population using the county migration proposals and, second, in supplying the detailed projections for the selected counties. The co-operation of the county planning departments of Berkshire, Hampshire, East Sussex and West Sussex is similarly

acknowledged, particularly for their help in providing the detailed age and sex migration structures used in the alternative projections.

The conclusions drawn by the authors should not be taken to represent official policy. Comment is invited upon the findings presented and upon the possible significance of the alternative projections for service planning. More detailed papers and projection results are available from the authors.

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2. OPCS, *Population projections area: 1975-1991*, Series PP3 No 2, (HMSO 1978) (Price £2.00 net)
3. OPCS, *Population projections area: 1977-1991*, Series PP3 No 3, (HMSO forthcoming)
4. Richard Campbell, 'Population projections: English regions and counties', *Population Trends* 16, pp. 17-21, (HMSO 1979) (Price £2.50 net)

Table 1

**County migration assumptions for OPCS 1977-based population projections: comparison of Local Authority and adopted assumptions**

Area	Initial county proposals			Adopted county assumptions			Difference <sup>1</sup>		
	1977-81	1981-86	1986-91	1977-81	1981-86	1986-91	1977-81	1981-86	1986-91
	Thousands								
Cleveland	-1.0	0.0	-0.5	-1.1	-0.7	-0.8	+0.1	+0.7	+0.3
Cumbria	+0.6	+0.5	+0.4	+0.5	+0.2	+0.2	+0.1	+0.3	+0.2
Durham	0.0	0.0	0.0	-0.1	-0.2	-0.2	+0.1	+0.2	+0.2
Northumberland	+1.0	+0.9	+0.7	+0.9	+0.7	+0.5	+0.1	+0.2	+0.2
Tyne and Wear	-4.9	-4.2	-3.5	-5.2	-5.0	-4.2	+0.3	+0.8	+0.7
<b>North</b>	<b>-4.3</b>	<b>-2.8</b>	<b>-2.9</b>	<b>-5.0</b>	<b>-5.0</b>	<b>-4.5</b>	<b>+0.7</b>	<b>+2.2</b>	<b>+1.6</b>
Humberside	-0.5	-0.3	-0.4	-0.8	-0.7	-0.5	+0.3	+0.4	+0.1
North Yorkshire	+3.7	+3.1	+1.6	+3.3	+2.9	+2.7	+0.4	+0.2	-1.1
South Yorkshire	-2.6	-1.3	-0.6	-2.8	-2.8	-2.8	+0.2	+1.5	+2.2
West Yorkshire	-0.9	-1.5	-1.8	-1.2	-1.9	-1.9	+0.3	+0.4	+0.1
<b>Yorks and Humberside</b>	<b>-0.3</b>	<b>-0.0</b>	<b>-1.2</b>	<b>-1.5</b>	<b>-2.5</b>	<b>-2.5</b>	<b>+1.2</b>	<b>+2.5</b>	<b>+1.3</b>
Cheshire	+4.2	+4.2	+2.2	+4.0	+4.0	+2.0	+0.2	+0.2	+0.2
Greater Manchester <sup>2</sup>	-7.7	-8.8	-7.0	-9.5	-9.0	-8.0	+1.8	+0.2	+1.0
Lancashire	+7.3	+6.0	+4.0	+5.0	+4.5	+3.5	+2.3	+1.5	+0.5
Merseyside <sup>2</sup>	-12.2	-8.3	-6.7	-13.0	-11.0	-7.5	+0.8	+2.7	+0.8
<b>North West</b>	<b>-8.4</b>	<b>-6.9</b>	<b>-7.5</b>	<b>-13.5</b>	<b>-11.5</b>	<b>-10.0</b>	<b>+5.1</b>	<b>+4.6</b>	<b>+2.5</b>
Derbyshire	+1.4	+1.1	+0.4	+0.9	+0.4	+0.3	+0.5	+0.7	+0.1
Leicestershire	+1.7	+1.0	+0.8	+1.6	+1.0	+0.7	+0.1	0.0	+0.1
Lincolnshire	+4.1	+3.5	+2.1	+3.2	+1.5	+1.3	+0.9	+2.0	+0.8
Northamptonshire	+5.5	+3.0	+1.7	+4.2	+2.1	+1.2	+1.3	+0.9	+0.5
Nottinghamshire	+0.5	+0.3	-0.1	-1.9	-0.8	-0.5	+2.4	+1.1	+0.4
<b>East Midlands</b>	<b>+13.2</b>	<b>+8.9</b>	<b>+4.9</b>	<b>+8.0</b>	<b>+4.2</b>	<b>+3.0</b>	<b>+5.2</b>	<b>+4.7</b>	<b>+1.9</b>
Hereford and Worcester	+6.8	+2.7	+2.6	+4.9	+2.2	+1.3	+1.9	+0.5	+1.3
Salop	+4.0	+4.0	+1.5	+2.7	+3.2	+0.8	+1.3	+0.8	+0.7
Staffordshire	+4.7	+3.8	+3.7	+1.9	+2.4	+1.5	+2.8	+1.4	+2.2
Warwickshire	+2.3	+2.2	+1.8	+0.3	+1.7	+0.9	+2.0	+0.5	+0.9
West Midlands	-10.7	-14.2	-14.5	-17.5	-17.0	-12.0	+6.8	+2.8	-2.5
<b>West Midlands</b>	<b>+7.1</b>	<b>-1.5</b>	<b>-4.9</b>	<b>-7.7</b>	<b>-7.5</b>	<b>-7.5</b>	<b>+14.8</b>	<b>+6.0</b>	<b>+2.6</b>
Cambridgeshire	+7.5	+4.4	+3.3	+5.8	+3.6	+3.0	+1.7	+0.8	+0.3
Norfolk	+5.8	+3.7	+3.8	+4.5	+3.4	+3.4	+1.3	+0.3	+0.4
Suffolk	+5.0	+4.3	+4.0	+3.7	+3.0	+2.6	+1.3	+1.3	+1.4
<b>East Anglia</b>	<b>+18.3</b>	<b>+12.4</b>	<b>+11.1</b>	<b>+14.0</b>	<b>+10.0</b>	<b>+9.0</b>	<b>+4.3</b>	<b>+2.4</b>	<b>+2.1</b>
Bedfordshire	+0.9	+0.6	+0.4	+0.6	+0.4	+0.3	+0.3	+0.2	+0.1
Berkshire	+7.4	+1.2	-0.7	+4.0	+0.9	0.0	+3.4	+0.3	-0.7
Buckinghamshire	+7.3	+6.8	+6.3	+5.0	+4.5	+4.0	+2.3	+2.3	+2.3
East Sussex	+7.0	+7.0	+6.0	+4.0	+4.0	+4.0	+3.0	+3.0	+2.0
Essex	+8.6	+6.6	+4.6	+4.5	+3.8	+3.0	+4.1	+2.8	+1.6
Hampshire	+2.2	+3.4	+9.3	+1.5	+2.5	+2.5	+0.7	+0.9	+6.8
Hertfordshire	+1.5	+1.2	+1.2	+0.5	+0.5	+0.5	+1.0	+0.7	+0.7
Isle of Wight	+1.7	+1.5	+1.5	+1.2	+1.2	+1.2	+0.5	+0.3	+0.3
Kent	+3.5	+2.1	+1.3	+2.0	+1.0	+0.4	+1.5	+1.1	+0.9
Oxfordshire	+3.4	+3.0	+3.0	+2.0	+1.5	+1.3	+1.4	+1.5	+1.7
Surrey	+2.5	-0.2	-1.4	-1.2	-1.2	-1.2	+3.7	+1.0	-0.2
West Sussex	+8.9	+8.7	+8.6	+6.4	+6.4	+6.0	+2.5	+2.3	+2.6
<b>Rest of South East</b>	<b>+54.9</b>	<b>+41.9</b>	<b>+40.1</b>	<b>+30.5</b>	<b>+25.5</b>	<b>+22.0</b>	<b>+24.4</b>	<b>+16.4</b>	<b>+18.1</b>
Greater London	-44.8	-35.5	-38.5	-65.0	-60.0	-55.0	+20.2	+24.5	+16.5
<b>South East</b>	<b>+10.1</b>	<b>+6.4</b>	<b>+1.6</b>	<b>-34.5</b>	<b>-34.5</b>	<b>-33.0</b>	<b>+44.6</b>	<b>+40.9</b>	<b>+34.6</b>



Table 1 (continued)

Thousands

	Initial county proposals			Adopted county assumptions			Difference <sup>1</sup>		
	1977-81	1981-86	1986-91	1977-81	1981-86	1986-91	1977-81	1981-86	1986-91
Avon	+1.8	+1.9	+2.0	+1.2	+1.4	+1.6	+0.6	+0.5	+0.4
Cornwall	+3.4	+3.4	+3.3	+3.4	+3.2	+2.7	0.0	+0.2	+0.6
Devon	+7.5	+7.5	+7.5	+6.9	+6.5	+5.7	+0.6	+1.0	+1.8
Dorset	+5.7	+6.3	+6.9	+5.7	+5.5	+5.2	0.0	+0.8	+1.7
Gloucestershire	+1.9	+0.9	+0.9	+1.7	+1.2	+1.2	+0.2	-0.3	-0.3
Somerset	+3.0	+3.0	+3.0	+2.5	+2.4	+2.1	+0.5	+0.6	+0.9
Wiltshire	+1.9	+2.3	+2.6	+1.6	+1.8	+2.0	+0.3	+0.5	+0.6
<b>South West</b>	+25.2	+25.3	+26.2	+23.0	+22.0	+20.5	+2.2	+3.3	+5.7
<b>England</b>	+60.9	+41.8	+27.3	-17.2	-24.8	-25.0	+78.1	+66.6	+52.3
Control	-17.2	-24.8	-25.0	-17.2	-24.8	-25.0	0.0	0.0	0.0
<b>Difference</b>	+78.1	+66.6	+52.3	0.0	0.0	0.0	+78.1	+66.6	+52.3

<sup>1</sup>The + signs in the Difference column indicate that the initial county proposals were higher than the adopted assumptions. Conversely the - signs indicate that the initial county proposals were lower than the adopted assumptions.

<sup>2</sup>The county proposals for Greater Manchester and Merseyside did not cover the period 1986-91. These figures are estimates provided by the Department of Environment Regional Office.

Table 2  
Comparison of projected total population using county and official migration assumptions

Thousands

Area	Base year population 1977	Projections for 1991 using alternative migration assumptions					
		Total population		Total change 1977-1991		Difference county-official	
		Official	County	Official	County	Number	Percentage
Cleveland	569.2	602.0	607.3	32.8	38.1	5.3	0.9
Cumbria	474.3	473.9	474.9	-0.4	0.6	1.0	0.2
Durham	607.9	608.0	609.3	0.1	1.4	1.3	0.2
Northumberland	290.7	299.3	301.9	8.6	11.2	2.6	0.9
Tyne and Wear	1,174.0	1,102.7	1,112.4	-71.3	-61.6	9.7	0.9
<b>North</b>	3,116.0	3,085.9	3,105.8	-30.1	-10.2	19.9	0.6
Humberside	845.5	864.8	869.4	19.3	23.9	4.6	0.5
North Yorkshire	654.1	682.7	679.7	28.6	25.6	-3.0	-0.4
South Yorkshire	1,304.0	1,270.7	1,289.5	-33.3	-14.5	18.8	1.5
West Yorkshire	2,072.2	2,088.8	2,093.4	16.6	21.2	4.6	0.2
<b>Yorks and Humberside</b>	4,875.9	4,907.0	4,932.0	31.1	56.1	25.0	0.5
Cheshire	914.3	986.3	989.4	72.0	75.1	3.1	0.3
Greater Manchester	2,674.8	2,601.1	2,614.5	-73.7	-60.3	13.4	0.5
Lancashire	1,368.3	1,414.5	1,433.4	46.2	65.1	18.9	1.3
Merseyside	1,561.8	1,448.8	1,468.9	-115.0	-92.9	22.1	1.5
<b>North West</b>	6,519.1	6,448.7	6,506.2	-70.4	-12.9	57.5	0.9
Derbyshire	896.3	908.5	915.9	12.2	19.6	7.4	0.8
Leicestershire	832.6	890.0	891.7	57.4	59.1	1.7	0.2
Lincolnshire	529.9	562.2	579.9	32.3	50.0	17.7	3.2
Northamptonshire	513.7	574.6	587.7	60.9	74.0	13.1	2.3
Nottinghamshire	974.1	985.5	1,003.1	11.4	29.0	17.6	18.1
<b>East Midlands</b>	3,746.7	3,920.9	3,978.3	174.2	231.6	57.4	1.5
Hereford and Worcester	602.6	659.6	678.7	57.0	76.1	19.1	2.9
Shropshire	360.7	410.1	424.8	49.4	64.1	14.7	3.6
Staffordshire	993.8	1,051.1	1,085.1	57.3	91.3	34.0	3.2
Warwickshire	466.9	496.1	512.3	29.2	45.4	16.2	3.3
West Midlands	2,729.8	2,593.4	2,624.5	-136.4	-105.3	31.1	1.2
<b>West Midlands</b>	5,153.6	5,210.3	5,325.5	56.7	171.9	115.2	2.2
Cambridgeshire	564.3	660.9	674.9	96.6	110.6	14.0	2.1
Norfolk	674.7	731.8	740.4	57.1	65.7	8.6	1.2
Suffolk	588.4	654.8	674.8	66.4	86.4	20.0	3.1
<b>East Anglia</b>	1,827.4	2,047.5	2,090.1	220.1	262.7	42.6	2.1

Table 2 (continued)

Thousands

Area	Base year population 1977	Projections for 1991 using alternative migration assumptions					
		Total population		Total change 1977-1991		Difference county-official	
		Official	County	Official	County	Number	Per- centage
Bedfordshire	489.6	548.2	552.1	58.6	62.5	3.9	0.7
Berkshire	667.5	750.8	769.6	83.3	102.1	18.8	2.5
Buckinghamshire	516.5	642.0	682.6	125.5	166.1	40.6	6.3
East Sussex	652.7	648.4	686.0	-4.3	33.3	37.6	5.8
Essex	1,426.1	1,551.7	1,596.7	125.6	170.6	45.0	2.9
Hampshire	1,450.3	1,554.0	1,603.6	103.7	153.3	49.6	3.2
Hertfordshire	941.8	994.7	1,007.3	52.9	65.5	12.6	1.3
Isle of Wight	113.7	121.9	126.5	8.2	12.8	4.6	3.8
Kent	1,445.0	1,493.7	1,510.5	48.7	65.5	16.8	1.1
Oxfordshire	539.4	590.9	615.4	51.5	76.0	24.5	4.1
Surrey	995.9	990.5	1,000.0	-5.4	4.1	9.5	1.0
West Sussex	625.2	679.6	712.0	54.4	101.7	32.4	4.8
<b>Rest of South East</b>	<b>9,863.8</b>	<b>10,566.5</b>	<b>10,862.3</b>	<b>702.7</b>	<b>1,013.4</b>	<b>295.8</b>	<b>2.8</b>
Greater London	6,970.3	6,280.7	6,537.7	-689.6	-432.6	257.0	4.1
<b>South East</b>	<b>16,834.1</b>	<b>16,847.3</b>	<b>17,400.0</b>	<b>13.2</b>	<b>580.8</b>	<b>552.7</b>	<b>3.3</b>
Avon	916.7	948.3	955.3	31.6	38.6	7.0	0.7
Cornwall	413.5	451.6	455.7	38.1	42.2	4.1	0.9
Devon	947.3	989.7	1,003.8	42.4	56.5	14.1	1.4
Dorset	583.2	615.4	626.3	32.2	43.1	10.9	1.8
Gloucestershire	492.8	519.3	517.3	26.5	24.5	-2.0	-0.4
Somerset	411.3	440.9	450.8	29.6	39.5	9.9	2.2
Wiltshire	513.8	573.3	581.2	59.5	67.4	7.9	1.4
<b>South West</b>	<b>4,278.6</b>	<b>4,538.6</b>	<b>4,590.3</b>	<b>260.0</b>	<b>311.7</b>	<b>51.7</b>	<b>1.1</b>
<b>England</b>	<b>46,351.2</b>	<b>47,006.1</b>	<b>47,928.2</b>	<b>654.7</b>	<b>1,591.7</b>	<b>922.1</b>	<b>2.0</b>

Table 3

**Comparison of population, household and labour supply projections using county and official migration assumptions**

Thousands

Area	Base	Total projections at 1991				Percentage difference
		1977	Official	County	Difference	
<b>Population</b>						
Berkshire	667.5	750.8	762.0	11.2	1.5	
Hampshire	1,450.3	1,554.0	1,594.8	40.8	2.6	
East Sussex	652.7	648.4	685.9	37.5	5.8	
West Sussex	625.2	679.6	712.4	32.8	4.8	
<b>Households<sup>1</sup></b>						
Berkshire	229.6	289.9	304.7	14.8	5.1	
Hampshire	511.9	617.4	639.7	22.3	3.6	
East Sussex	258.2	285.4	307.0	21.6	7.6	
West Sussex	235.0	284.4	305.8	21.4	7.5	
<b>Labour supply<sup>2</sup></b>						
Berkshire	324.0	384.1	394.8	10.7	2.8	
Hampshire	664.2	757.3	770.7	13.4	1.8	
East Sussex	273.0	287.5	304.2	16.7	5.8	
West Sussex	270.2	311.3	325.6	14.3	4.6	

<sup>1</sup>The potential household projections were prepared using the standard DOE methodology.

<sup>2</sup>The labour supply projections were produced by adapting the DE methodology, by the application of county differentials established from the 1971 Census of Population.

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# Evaluation of past surveys

**Stuart Brown**, *Senior Social Survey Officer* and **Kerrick Macafee**, *Statistician, Central Statistical Office*

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The Survey Control Unit is responsible for assessing new statistical surveys to see that they do not place an unacceptable burden on respondents, that they are well designed and do not duplicate information already available elsewhere. Government Departments and Agencies are required to notify the Unit of any new survey which they are about to undertake, and consultations before fieldwork begins can be lengthy. The start of fieldwork, however, generally indicates the end of the Unit's involvement in the survey.

The Unit has thought for some time that its work would be enhanced if it received some feedback about how well the surveys it assesses perform in the field. That might enable the Unit to identify in advance aspects of survey research that had in previous surveys turned out to be either successful or unsuccessful; in particular, it might help to reveal approaches that are particularly burdensome for respondents. Survey assessment concerning such aspects could then be made on a more objective basis. Accordingly, after a pilot at the beginning of 1978, a short questionnaire was sent to Departments on 1 September 1978, asking about various aspects of the performance of those surveys assessed by the Unit which had commenced during the fourth quarter of 1977. Four further quarterly stages of the exercises have been carried out. This article outlines the results obtained in respect of surveys whose fieldwork began during the period October 1977 to September 1978. Surveys conducted by OPCS were not included in the exercise. They are not assessed by the Unit and OPCS has its own evaluation procedures. Details of the size of the exercise and of the level of response are shown in the Appendix.

## Survey response rates

High response rates were generally achieved (see Table 1). The median value for all interview surveys was 84 per cent and for all postal surveys 76 per cent. Postal surveys addressed to businesses are of particular concern to the Unit. The median response rate for these surveys was 80 per cent. This high figure reflected the number of small business surveys carried out in which the subject matter was directly relevant to the respondents and where care had been taken with the initial contact (which was often

by telephone).

However, there was a greater range in the response rates for postal surveys than for interview surveys. Sixteen per cent of all postal surveys had a response rate of less than 50 per cent, whereas the corresponding figure for interview surveys was 5 per cent. The most common reasons put forward for a low postal response rate were respondents' lack of interest in the subject matter and inadequate reminder procedures.

When surveys are notified to the Unit an expected response rate is requested. One-fifth of those surveys to which a response rate is applicable had not provided an expected rate. These surveys showed no bias in terms of their achieved response rates. In three-quarters of the cases where an expected rate had been given, this was within 10 percentage points of the achieved rate. The remaining surveys showed a bias towards an overestimate of the response rate, and this tendency was more apparent for postal surveys.

## Length of interview

The median value for interview length with business/local authorities was 45 minutes, whereas the median value for other respondents was 30 minutes (see Table 2). For a quarter of interview surveys, expected length had not been supplied to the Unit on notification. The actual length of interview for these surveys tended to be short. Sixty per cent of the remaining interview surveys had an anticipated length within ten minutes of the actual length, although there was a small bias towards overestimation of interview length. For the remaining surveys where the length of interview had been inaccurately forecast, there was a tendency for business/local authority surveys to underestimate the length and for other surveys to overestimate it.

The third and fourth rounds of the exercise attempted to collect data on the length of the time needed to complete postal questionnaires. In only just over half the cases was information available. Of these surveys, 85 per cent had a completion time of 20 minutes or less. Little information was available on the completion time of postal surveys to businesses/local authorities.

### **Unsatisfactory questions**

Almost one half of the postal surveys had used a questionnaire that was found to contain at least one unsatisfactory question. For those interview surveys that used a structured questionnaire, the proportion was one quarter. This illustrates the limits that a postal approach places on the quality of survey data. Inexact questions were the main problem with postal surveys. One quarter of the postal surveys contained at least one question which respondents were thought to have found ambiguous or which did not specify clearly the information required, and one in five contained questions which some respondents found too difficult or too burdensome to answer. For postal surveys to businesses, questions concerning the employee complement often caused problems on both counts. Requests for financial data also created difficulties. The problems encountered on interview surveys covered a wide range. The most common, for business surveys, were questions which assumed too much knowledge on the part of the respondent. For individual and household interview surveys, a major problem was vagueness in defining the question. The Unit is compiling a list for internal use describing the faulty questions in more detail.

### **Changes to the survey if it were to be repeated**

For two out of five postal surveys those responsible indicated that they would change them in some way, were they to be repeated. Invariably, the questionnaire would be altered to weed out faulty questions, and there was a strong tendency to favour a shorter questionnaire for postal surveys addressed to businesses. A similar proportion of interview surveys would be changed. The two main changes quoted were an amendment to the questionnaire (generally to extend one section of it at the expense of another) and an alteration to the sample design or selection procedure. The wide range of other changes quoted included alterations in interview methods, increased sample size, use of an Agency and more pilot effort.

### **Bias**

Almost two-fifths of the postal surveys experienced sampling or bias problems, compared with one in five of the interview surveys. The most common problems on postal surveys were non-response bias, outdated or inconvenient sampling frames and partial completion of questionnaires (particularly for business surveys). For interview surveys, the main problem encountered was the identification and recruitment of eligible respondents. Very few surveys were considered to have collected data that were too biased to be of any use. Most researchers felt that they could adequately assess the

extent of bias.

### **Contract work**

There was a generally high level of satisfaction with work contracted out to non-government organisations, although several researchers stressed the need for regular communication with the contractor. Ninety-eight surveys had been contracted out to market research agencies compared with 40 surveys contracted out to other types of organisation.

### **Public relations**

Very little hostile reaction was reported either from the public or from businesses to any of the surveys. A few letters of complaint were written by people who had been approached but these were resolved satisfactorily by the appropriate Department.

### **Conclusion**

As had been hoped, the exercise has produced information of value to the Unit. Survey proposals can now be more rigorously assessed; examples are subject matter for which questions are likely to be unsatisfactory, aspects likely to lead to poor response rates (on postal surveys in particular), and a better assessment of completion times. The Unit would like to thank everyone who co-operated. Although some of the analyses have been based on fairly small samples, there do not seem to be any unresolved questions that might benefit from further stages in 1980. The most recent (fifth) stage will be the last, although the Unit may wish to revive the exercise at some time in the future.

**Table 1**  
**Survey response rates**

Unit	Per cent					
	Interview surveys			Postal surveys		
	Business/ Local authority	Individual Household	Total	Business/ Local authority	Individual Household	Total
Achieved response rate						
100-90	40	30	33	35	6	23
89-80	13	31	26	25	26	26
79-70	23	14	17	10	14	12
69-60	3	17	13	14	20	16
59-50	17	2	6	2	14	7
Less than 50	3	6	5	14	20	16
(Base number)	100 (30)	100 (65)	100 (95)	100 (51)	100 (35)	100 (86)
Median value	82	84	84	88	68	76
Not applicable	(6)	(39)		(7)	(2)	

**Table 2**  
**Length of interview**

Unit	Per cent	
	Business/ Local authority	Individual/ Household
1-20 mins	22	38
21-60 mins	59	43
More than 60 mins	19	19
(Base number)	100 (32)	100 (100)
Median value	45 mins	30 mins
Not known	(4)	(4)

**APPENDIX**

**Response to the exercise**

Table A shows that the overall response rate to the exercise was 78 per cent. Questionnaires despatched in respect of postal surveys achieved higher response rates than those despatched for interview surveys. This arose in part because one organisation was unable to co-operate with the exercise. However, the response rates achieved by individual departments did not show excessive variation; and there is no evidence that serious non-response bias existed.

**Table A**  
**Response to the evaluation exercise**

Unit	Number				
	Interview surveys		Postal surveys		Total
	Business/ Local authority	Individual/ Household	Business/ Local authority	Individual/ Household	
Questionnaires despatched	53	140	68	40	301
Completed questionnaires received	36	104	58	37	235
Response rate (per cent)	68	74	85	93	78

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# Recently available statistical series and publications

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The following publications containing social statistics have recently, or will soon become available during the January-March quarter of 1980. Unless otherwise specified, copies may be purchased from Her Majesty's Stationery Office. A list of release dates of economic series is published monthly in *Economic Trends*.

## Central Statistical Office

*Regional Statistics No 15, 1980*

## Department of Employment

*Employment Gazette*, published towards the end of each month, contains indicators on earnings, unemployment and prices. Issues due in the first quarter will contain the Family Expenditure Survey results for the first and second quarters of 1979. They will also include articles 'Real income and expenditure of households' and 'RPI 'general index' households, one and two pensioner households and all households.'

## Department of the Environment

*Housing and Construction Statistics*, Issue 31: figures for the third quarter 1979

*Local Housing Statistics*, Issue 52: figures for the third quarter of 1979

## Home Office

*Liquor licensing statistics, England and Wales*

*Statistics of the criminal justice system, England and Wales, 1968-78*

*Serious offences recorded by the Police in England and Wales* (fourth quarter and year 1979)

*Statistics on the Prevention of Terrorism (Temporary Provisions) Acts, 1974 and 1976* (fourth quarter and year 1979)

*Control of immigration statistics (UK)* (fourth quarter and year 1979)

## Inland Revenue

*Survey of Personal Incomes 1977-78*

## Office of Population Censuses and Surveys

*Population Trends No 19*

*OPCS Monitors* available free from the Office of Population Censuses and Surveys include:

<i>Births and Deaths</i>	VS	Weekly
<i>Deaths from Accidents</i>	DH4	Monthly
<i>Legal Abortions</i>	AB	Monthly

<i>Adoptions</i>	FM3	Quarterly
<i>Infectious Diseases</i>	MB2	Quarterly
<i>International Migration</i>	MN	Quarterly
<i>Deaths by Cause</i>	DH2	Quarterly

## Scottish Office

*Scottish Economic Bulletin No. 20*

*Scottish Housing Statistics Nos. 5, 6 and 7*

*Scottish Abstract of Statistics No. 9, 1979*

*Civil Judicial Statistics, 1978*

## Welsh Office

*Statistics of Education in Wales, No. 4*

## Department of Health and Social Security

In addition to the above, the following analyses in the Department of Health and Social Security statistical series have recently become available. Extracts and summaries from these will eventually be published in *Social Security Statistics*.

### Unemployment benefit

Quarterly analysis of decisions of Insurance Officers, quarter ending 31.12.79

Monthly analysis of claims by sex and region:

4 weeks ending 29.9.79

5 weeks ending 3.11.79

4 weeks ending 1.12.79

Quarterly analysis of registered unemployed by class, sex and region, quarter ended 8.11.79

### Guardian's allowance/Child's special allowance

Quarterly analysis of children for whom allowance is in payment, year ended 31 September 1979

### Child benefit

Analysis by family and children

3 months ended 31 December 1979

Further information on the above DHSS publications can be obtained from:

Mr. R. J. McWilliam,

Department of Health and Social Security,

Room 2216,

Newcastle Central Office,

Newcastle upon Tyne NE98 1YX.

*Note: see also page 48.45*

# New surveys assessed by the Survey Control Unit

September to November 1979

For further information on the surveys listed, the appropriate departmental contact may be obtained from Mr R. C. Ponman (01-233 8583), Survey Control Unit, Central Statistical Office, Great George Street, London SW1P 3AQ.

*An introductory note was given in Statistical News 36.41*

## New Surveys assessed September—November 1979

Business Surveys						
Title	Sponsor	Those approached	Approximate number approached	Location	Frequency	
Imports of diamonds by post	C&E	Diamond importers	40	UK	M	
Economy of rural communities in national parks	CC	Businesses	100	E	AH	
Advertising research for the Computer Aided Design Centre	COI/DI	Manufacturers	200	GB	AH	
Equal opportunity policies towards ethnic minority employees	DEM	Employers	220	GB	AH	
Industrial effects of the Tyne and Wear Act	DOE	Employers	227	YH	AH	
Young people in the labour market	DOE	Employers	150	NW	AH	
Research on 'Development Opportunities Portfolios'	ETB	Property developers	145	E	AH	
Poor reading as a bar to employment in South London	HSE	Manufacturers	120	SE	AH	
The performance of fertiliser distributors	MAFF	Farmers	300	EW	AH	
Acidified milk feeding of calves	MAFF	Farmers	20	N	AH	
Industrial training needs in the Worcester area	MSC	Employers	151	WM	AH	
Air Transport and Travel ITB survey of airport air traffic engineering staff	MSC	Airport and airfield managers	30	GB	AH	
Air Transport and Travel ITB survey of engineering manpower requirements	MSC	Engineering companies	80	GB	AH	
Iron and Steel ITB qualified manpower	MSC	Manufacturers	320	GB	Y3	
Manpower and training needs of the freight forwarding industry	MSC	Distribution companies	1252	GB	AH	
Hazards of materials handling in the printing industry	MSC	Printing companies	50	GB	AH	
Evaluation of economic effects of direct training services	MSC	Commercial companies	60	GB	AH	
Supply and demand for technical manpower in electronics	MSCS	Engineering companies	85	S	AH	
Survey of food and drink exporters	NEDO	Exporters	16	UK	AH	
Skilled employment in the electronic components industry	NEDO	Engineering companies	400	UK	AH	
Local authority surveys						
Oil savings in local government	DEN	Chief executives	80	UK	Q	
Local authority taxi and hire car survey	TRRL	Highways departments	367	EW	AH	
Evaluation of House Improvement Manual	WO	Housing departments	37	W	AH	
Progress monitor of housing action areas	WO	Housing departments	21	W	AH	
Other surveys						
Behaviour of people in fires	BRE	Adults	NK	E	AH	
Entrance-phone survey	BRE	Tenants	118	SE	AH	
Safety commercials for the under fives	COI	Children	36	GB	AH	
Test of 'The Civil Service' poster among undergraduates	COI/CSD	Students	100	E	AH	
Energy omnibus 1979	COI/DEn	Adults	1000	GB	AH	
Public attitudes to energy conservation	COI/DEn	Adults	1200	GB	AH	
Blood donors radio campaign research	COI/DHSS	Adults	1800	SE	AH	
Drink and drive 1979/80 campaign commercial pre-test	COI/DTp	Drivers	300	E	AH	
Drink and drive 1979/80 campaign evaluation	COI/DTp	Drivers	1940	UK	AH	
Drink and drive 1979/80 campaign development	COI/DTp	Drivers	44	E	AH	
Fire prevention (smokers' materials) campaign evaluation	COI/HOME	Adults	1500	E	AH	
Fire Prevention (smokers' materials) campaign development	COI/HOME	Adults	360	E	AH	
Crime prevention (burglary) 1980 campaign evaluation	COI/HOME	Households	1600	EW	AH	

*New surveys assessed September—November 1979 (continued)*

<i>Title</i>	<i>Sponsor</i>	<i>Those approached</i>	<i>Approximate number approached</i>	<i>Location</i>	<i>Frequency</i>
<b>Other surveys—continued</b>					
Police recruitment monitor	COI/HOME	Men	225	GB	AH
Crime prevention campaign qualitative pre-test	COI/HOME	Adults	68	SE	AH
RAF engineering target market study	COI/MOD	Students	30	GB	AH
Army animatic research	COI/MOD	Youths	35	E	AH
RAF withdrawn applicants	COI/MOD	Youths	200	UK	AH
Navy recruitment research	COI/MOD	Men	70	GB	AH
RAF ground trades commercial test	COI/MOD	Youths	36	E	AH
Attitudes towards the women's armed services	COI/MOD	Women	150	GB	AH
Volunteer help to elderly in residential care	DHSS	Employees	100	SW	AH
Assessment of garments and pads for urinary incontinence	DHSS	Patients	120	SE	AH
Supporters of confused elderly persons in the community	DHSS	Adults	150	SE	AH
Step-parent adoption	DHSS	Social workers, solicitors and step-parents	100	E	AH
Management of mental and physical impairment in non-specialist homes	DHSS	Elderly	180	NW	AH
Comfort and convenience of seat belts	DI	Drivers	1000	WM	AH
Environmental stress in the inner city	DOE	Households	1750	EM	AH
Impact of changes in the inner city private rented sector	DOE	Landlords	8000	NW	AH
A16 Spalding to Sutterton roadside interview survey	DTP	Drivers	5000	EM	AH
A12 Kesgrave—Martlesham by-pass traffic survey	DTP	Drivers	4500	EA	AH
English Hotels Fair Workshop evaluation	ETB	Visitors	150	WM	AH
Dietary studies in Shipham	MAFF	Adults	188	SW	AH
Cadmium intake by high consumers of crabmeat in Orkney-pilot	MAFF	Adults	40	S	AH
Attitudes to a naval sixth form college	MOD	Youths	80	E	AH
Evaluation of skill shortages mobility experiment	MSC	Participants	57	GB	AH
Special Programmes follow-up survey—November 1979	MSC	Youths	3800	GB	AH
Review of Training Opportunities Scheme and related allowances	MSC	Participants	2500	GB	AH
Package holiday survey	OFT	Adults	6000	GB	AH
Training Opportunities Scheme—follow-up survey	OPCS/MS	Trainees	2500	GB	AH
Characteristics and views of visitors to three museums	OPCS/OAL	Visitors	10000	E	AH
Rent arrears study	SDD	Tenants	300	S	AH
National survey of lorry nuisance	TRRL	Adults	3200	GB	AH
Verbal tags on rating scales for road assessment framework	TRRL	Adults	124	SE	AH
Attitudes of pupils to traffic education in schools	TRRL	Pupils	4000	SE	AH
RUTEX—Hackforth car sharing service	TRRL	Households	30	YH	AH
Drivers' use of Traffic Information Broadcasting	TRRL	Drivers	500	EM	AH
Motor cycle training course campaign	TRRL	Applicants	1300	WM	AH
Private hire car and taxi users' survey	TRRL	Passengers	7500	WM	AH
'Economic Progress Report' readership survey	TSY	Readers	NK	UK	AH
Ceredigion migration and labour mobility survey	WO	Households	5900	W	AH
Energy consumption and condensation problems in Penarth council housing	WO	Tenants	330	W	AH

LIST OF ABBREVIATIONS

<i>General</i>	DHSS	Department of Health and Social Security	TRRL	Transport and Road Research Laboratory	
ITB	Industry Training Board	DI	Department of Industry	TSY	HM Treasury
NK	Not known	DOE	Department of the Environment	WO	Welsh Office
RAF	Royal Air Force	DTP	Department of Transport		
RUTEX	Rural Transport Experiment	ETB	English Tourist Board		
<i>Frequencies</i>	HOME	Home Office		<i>Locations</i>	
AH	Ad Hoc (or single time)	HSE	Health and Safety Executive	E	England
M	Monthly	MAFF	Ministry of Agriculture, Fisheries and Food	EA	East Anglia
Q	Quarterly	MOD	Ministry of Defence	EM	East Midlands
Y3	Every 3 years	MSC	Manpower Services Commission	EW	England and Wales
		MSCS	Manpower Services Commission Office for Scotland	GB	Great Britain
<i>Sponsors</i>	NEDO	National Economic Development Office	N	Northern England	
BRE	Building Research Establishment	OAL	Office of Arts and Libraries	NW	North West England
C&E	Customs & Excise	OFT	Office of Fair Trading	S	Scotland
CC	Countryside Commission	OPCS	Office of Population Censuses and Surveys	SE	South East England
COI	Central Office of Information	SDD	Scottish Development Department	SW	South West England
CSD	Civil Service Department			UK	United Kingdom
DEM	Department of Employment			W	Wales
DEN	Department of Energy			WM	West Midlands
				YH	Yorkshire and Humberside



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# Notes on current developments

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## POPULATION AND VITAL STATISTICS

### International migration

Detailed figures and commentary on international migration during 1977 for the United Kingdom and for England and Wales have been published by the Office of Population Censuses and Surveys. The volume includes information for the period 1968–77 and also contains new tables detailing immigrants born in the UK by year of departure, citizenship and area of last residence. Summaries of some of the migration information available in other published sources are also included.

#### Reference

*International migration, 1977 Series MN No. 4* (HMSO, 1979) (Price £3.00 net).

### People in Britain: an educational wallchart

Maps of 1971 Census data for 1-kilometre grid squares drawn by new techniques using laser beams and computers are featured in an educational wallchart which has been published by the Office of Population Censuses and Surveys.

The wallchart is intended for use in 'O'-level and CSE courses in geography, computer studies, social studies and history in secondary schools, and in further and higher education. The maps show selected characteristics of the population of Great Britain and some of its more populous areas as measured by the census.

The mapping techniques were developed by the Census Research Unit at the University of Durham.

Of particular interest is the technique of using chi-square values to show deviations from national averages. The national distribution of retired people, manufacturing workers and travel to work by car are shown in this way, as are bath deficiency in South Wales and North West England, multi-car households in the West Midlands and people born overseas in London and the South Coast area. A large map of Great Britain and a map of central Scotland show population density in terms of absolute numbers.

The wallchart also includes captioned drawings showing how a census is taken and processed and, with the next census due in 1981, this lends considerable topicality.

Copies of the wallchart, size AO (841×1189 mm) and in full colour, are available from the Census Information Unit at OPCS price £1.95 plus 40p postage and packing.

### Population Trends

The latest edition of *Population Trends*, the journal of the Office of Population Censuses and Surveys was

published in December. The editorial of this latest issue contains a demographic review of England and Wales for the year 1978. It comments that in the twelve months from mid-1978 to mid-1979 births exceeded deaths by 33,000. This natural increase together with a net gain of 17,000 by migration led to an increase of 50,000 in the population, the first such increase since 1974. The editorial looks at live births, fertility rates, patterns of childbearing, abortions, adoptions, marriages, divorce, mortality, international migration, and national population projections in 1978.

The issue also contains the following articles:

#### *Birth intervals*

In recent years important changes have been occurring in the intervals between marriage and first birth and between subsequent births. This article identifies these changes using information from both birth registration and the General Households Survey, and indicates the usefulness of birth interval analysis in describing family formation patterns associated with birth projections.

#### *Wolverhampton 1871 and 1971*

Following completion of the 1971 national classification of residential neighbourhoods this article describes a similar exercise based on census statistics for Wolverhampton in 1871. Comparison of results for 1871 and 1971 reveals fundamental similarities as well as striking differences and provides insights into the evolution of the present residential structure.

#### *International migration; recent trends*

This article summarises differences and similarities in international migration trends for the United Kingdom for the last two or three years compared with the preceding period. Among the features that are highlighted is the downward trend in emigration, particularly a sharp decline in the numbers of people going to the Old Commonwealth countries (Australia, Canada and New Zealand). 'Return' migrants are separately distinguished—that is persons returning to the UK after residing abroad for a time and conversely persons leaving the UK after residing here for a time; an indication of trends in their numbers is obtained by using birthplace statistics.

In addition to these articles the issue contains the latest available statistics on population, births, marriages, deaths, migration and abortions.

#### Reference

*Population Trends 18* Winter 1979 (HMSO) (Price £2.50 net).

## **GRO(Scotland) – Population and vital statistics**

The Registrar General's second quarterly return for 1979, published in February, includes the 1978-based population projection for Scotland and for Local Government Regions and Health Board areas in addition to the usual quarterly tables.

Three sets of abbreviated tables, based on postcode sectors within Scotland, have now been prepared for 1977 and 1978. They cover:

1. Deaths by age and sex.
2. Deaths by 12 selected causes and sex.
3. Births by mothers age, by sex and parity, and by fathers social class.

Copies of these tables, and of more detailed versions of the population projections, may be obtained at copying cost from GRO(S) Statistics Branches, Ladywell House, Edinburgh EH12 7TF.

## **SOCIAL STATISTICS**

### **Town and country planning**

#### *Development control statistics*

First results are now available from the new 'package' of statistical returns launched by the Department of the Environment in April 1979 to monitor the machinery of Development Control administered by local planning authorities.

The information obtained from these returns provides the basis of a regular new series on the number and type of planning applications dealt with each quarter, including details of decisions by broad category of development (residential, commercial, manufacturing and storage etc.) and by time taken to issue the decision. This quarterly series will be complemented with a half yearly series on the supply of land with outstanding planning permission for public and private residential development. The possibility of a third and annual series concerned with particular aspects of planning control (such as the preservation of trees and the alteration or demolition of listed buildings) is currently under consideration.

Further information can be obtained from:

Joe Rooney, Statistician,  
Department of the Environment,  
2 Marsham Street,  
London SW1P 3EB.  
Telephone: 01-212 4113.

### **Statistics of the Criminal Justice System, England and Wales, 1968–78**

A new Home Office publication entitled *Statistics of the Criminal Justice System, England and Wales, 1968–78* was published at the beginning of January 1980. The publication brings together the principal statistics on the

criminal justice system (including some statistics on expenditure not published regularly elsewhere) and thus provides information in a more convenient form for those not requiring the detail presented in specialised publications. The statistics are illustrated in diagrams and charts and brief comments are made on their main features.

There are chapters on offences recorded by the police, police or court action following an offence, offenders and their offences, sentencing, the prison population, the work of the probation and after-care service, convictions of offenders, the manpower employed by the criminal justice system and expenditure on law and order.

There are three appendices: (i) definitions of terms and explanation of the statistical recording procedures; (ii) legislation and executive decisions affecting the statistics; (iii) sources of statistics on the criminal justice system.

#### **Reference**

*Statistics of the Criminal Justice System, England and Wales, 1968–78.* (HMSO 1979) (Price £3.50 net).

### **Probation and After-Care Statistics, England and Wales 1978**

*Probation and After-Care Statistics, England and Wales* is an annual publication giving statistics on the work of the Probation and After-Care Service. The report for 1978 was published in December 1979 and is arranged in four parts. Part 1 provides some basic information about the clients of the Probation and After-Care Service and provides an overall view of the casework of the Service as at the end of each year. In Part 2 the work of the Service is considered in detail, giving information about the commencements and terminations of the different types of supervision/after-care administered by the Service, together with information on the completion of inquiry reports, welfare work in prisons and miscellaneous duties, such as assisting the homeless and helping with matrimonial problems. In Part 3 details of the number of officers in post are given, their average caseload and some results from a sample study – the National Activity Recording Study – on the number of hours worked by probation officers and the extent of evening and weekend working. Part 4 provides information on the cost of running the Probation and After-Care Service.

Obtainable from:

Home Office Statistical Department,  
Room 1806, Tolworth Tower,  
Surbiton,  
Surrey, KT6 7DS.  
Telephone: 01-399 5191, Ext. 306.

#### **Reference**

*Probation and After-Care Statistics, England and Wales 1978.* (Home Office) (Price £2.25 net).

## Amendments to Social Trends 10

The 1980 edition of *Social Trends* was published by HMSO on 6 December 1979. The following errors have since been discovered in the published version:

### Page 30 Text

Private Transport

Line 8, **delete** '1947' – **insert** '1960'

### Page 31 Text

Telecommunications

1st paragraph, line 8, **delete** '57' – **insert** '62'

### Page 64 Table 1.2

Row '2001', column 'All ages', **delete** '29.5' – **insert** '28.5'

### Page 86 Table 2.14

Stub 'to women in second . . . in that marriage', **delete** 'in that marriage'

### Page 88 Table 2.18

**Delete** in toto and **substitute** new table below

### Page 169 Text

Life expectancy, line 9, **delete** '1974' – **insert** '1976'

### Page 128 Table 15.3

Table number, **delete** '15.3' – **insert** '5.13'

### Page 140 Table 6.9

Footnote 2 **delete** in toto and **insert** 'Child benefit (up to 1976–77 family allowances including child interim benefit) less the extra tax revenue resulting from the reduction in child tax allowances.'

### Page 220 Text

2nd paragraph, last line, **delete** '1978' – **insert** '1979'

Any queries should be referred to Ron Freeman (01-233 7637) in the Central Statistical Office, Great George Street, London SW1P 3AQ.

**Table 2.18. Legitimate births: by social class and number of previous children<sup>1</sup>**

*Great Britain*

Thousands and percentages

	Social class of father						Total all classes <sup>2</sup>	
	Pro- fessional	Inter- mediate occu- pations	Skilled occu- pations	Partly skilled occu- pations	Un- skilled occu- pations	Other <sup>3</sup>	Per- centages	Thousands
<b>1976</b>								
<b>Number of previous children:</b>								
<i>None</i>	44	42	40	39	38	47	41	240
<i>One</i>	41	40	39	37	31	36	38	226
<i>Two</i>	11	13	14	14	16	12	13	80
<i>Three</i>	3	4	5	5	7	3	5	27
<i>Four or more</i>	1	2	3	5	8	1	3	18
<b>Total (percentages)</b>	100	100	100	100	100	100	100	
<b>(thousands)</b>	46	109	291	95	30	19		590
<b>1977</b>								
<b>Number of previous children:</b>								
<i>None</i>	45	42	41	40	37	50	41	235
<i>One</i>	39	39	38	35	34	35	37	214
<i>Two</i>	12	14	14	15	15	11	14	80
<i>Three</i>	2	4	4	6	7	3	4	25
<i>Four or more</i>	1	1	3	4	7	2	3	15
<b>Total (percentages)</b>	100	100	100	100	100	100	100	
<b>(thousands)</b>	47	110	275	90	30	18		569

<sup>1</sup>Based on a 10 per cent sample of births in England & Wales, and total births for Scotland. Figures relate to births within current marriage only.

<sup>2</sup>Including unclassified.

<sup>3</sup>England and Wales only. Source: Office of Population Censuses and Surveys; General Register Office for Scotland.

## EDUCATION

### 16-19 Participation rates and socio-economic background

The Department of Education and Science (DES) published in December a statistical bulletin giving the results of a depth study into official statistics. This indicates that participation in full-time CSE/GCE studies by those aged 16 to 18 (between 16th and 19th birthdays) is closely related to their socio-economic background and, to a lesser degree, to the relative population density of the area. The percentage of young people living in each local education authority area and attending non-advanced courses in both school and maintained colleges varied greatly in 1976-77 between areas, and these results were confirmed by the 1977-78 data. Multiple regression techniques were applied to participation rates and demographic factors to establish underlying relationships. Two indicators were found relevant, the ratio of non-manual to all household heads in the area (as indicated by the 1971 Census) and the number of 16 to 18 year olds per hectare. About two thirds of the variation is explained by the socio-economic factor, a level which rises to nearly 70 per cent when population density is also included.

Copies of the bulletin can be obtained on application to 01-928 9222 ext. 2776. Enquiries on the bulletin itself to Mrs. S. Keith ext. 2540/2477.

#### Reference

*DES Statistical bulletin 15/79, Participation in education by young people in the 16 to 19 age group and its association with the socio-economic structure and population density in an area (ISSN 0142-5013).*

### Scottish teacher demand model

Since 1972 the Scottish Education Department has used a statistical model<sup>1</sup> of an individual secondary school to calculate the number of teachers required given a set of assumptions about the school's curriculum and organisation. A new model has recently been developed to project the national staffing implications of changes to the curriculum in different types of schools and of alternative proposals for national examinations. Such issues are of topical national interest at present, following publication of reports of the Munn<sup>2</sup> and Dunning<sup>3</sup> Committees, and of a feasibility study<sup>4</sup> completed by the Department.

This note briefly describes the new teacher demand model (TDM). It is used to test the effects on staffing of alternative proposals for changes to the curriculum and organisation of schools. Detailed changes can be modelled affecting variously small and large schools, urban and rural schools, Roman Catholic and non-denominational schools, and so on. The model will also project the results of different planning decisions affecting the pace at which changes are to be implemented. In

all cases the total demand for teachers can be broken down by subject and (eventually - still under development) by grade.

The general approach is to classify secondary schools into homogeneous groups, select average or typical schools from within each group and specify assumptions affecting teaching load applicable in each typical school, calculate the number of teachers required for the school and then gross up the results to obtain a national total. The model requires three input files:

- (i) a 'pupil' file, containing projections of the numbers of schools in each class, and the numbers of pupils at each stage of each typical school;
- (ii) a 'subject' file, containing the time allocated to the subjects offered at each typical school; the pupils' uptake of each subject; maximum class sizes; and subject teachers' non-teaching time; and
- (iii) a 'non-subject' file containing extra staffing allowances, e.g. for administration, guidance and in-service training.

The TDM package also includes programs that access data collected from schools and calculate past values of some of the input variables. The model may be run by combining different input files to reveal the effect of varying particular sets of projections obtained by varying the policy or planning assumptions. This enables an assessment to be made of the sensitivity of the demand calculations to changes in curriculum variables, or to variations in a planned implementation timetable.

#### References

- <sup>1</sup>*Secondary school staffing* (HMSO Edinburgh) March 1973 (Price 85p net).
- <sup>2</sup>*Consultative Committee on the Curriculum. The structure of the curriculum in the third and fourth year of the Scottish secondary school* (HMSO Edinburgh) 1977 (Price £1.50 net).
- <sup>3</sup>*Committee to Review Assessment in the Third and Fourth Years of Secondary Education in Scotland. Assessment for all* (HMSO Edinburgh) 1977 (Price £2.00 net).
- <sup>4</sup>*Curriculum and assessment in the third and fourth years of secondary education in Scotland: a feasibility study* (HMSO Edinburgh) February 1979 (Price £1.50 net).

## HEALTH AND SOCIAL SERVICES

### Child poisoning

The latest (February) edition of *Health Trends*, a quarterly review for the medical profession issued by the Department of Health and Social Security and the Welsh Office contains an article by Wendy McLean on some trends on child poisoning in England and Wales between 1964 and 1976. The data relates mainly to hospital admissions with two tables on mortality. Enquiries about this publication should be made to:

The Editor,  
Health Trends,  
DHSS,  
6 St. Andrews Street,  
London EC4A 3AD.

### **Local authority personal social services summary of planning returns 1977-78 to 1980-81**

The summary analyses the returns submitted by local authorities as at October 1978 to show actual provision and expenditure on their personal social services in 1977/78 and forecasts to 1980/81 by client group on a national basis, by types of authority and by groups of authority with generally similar needs. The summary also shows the distribution of joint finance, growth rates of services, expenditure per head of relevant population, etc. The document will be of particular value in providing a basis upon which future performance can be judged and will be of interest to local authority social services departments, planners, treasurers and researchers.

Copies of the Report are obtainable free of charge from:

DHSS Store,  
Scholefield Mill,  
Brunswick Street,  
Nelson,  
Lancs, BB9 0HU.

## **MANPOWER AND EARNINGS**

### **Newly qualified scientists, engineers and technologists**

The issue of *Trade and Industry/British business* dated 11 January 1980 contains an article on persons newly qualified in science, engineering and technology. The article, which includes 13 tables, revises and extends an earlier one in *Economic Trends*, bringing the series up to date with the latest available figures for 1978, and adds some estimates for 1979 and 1980.

The tables present a picture of those with qualifications at degree level or equivalent, obtained at university, polytechnic or other educational institutions, including degrees of the Council for National Academic Awards and qualifications awarded by certain professional institutions. Graduates in science, engineering and technology are analysed in considerable detail by sector of first employment (e.g. industry and commerce and, at a finer level, manufacturing industry). Separate figures are given for science and for engineering and technology, and four tables break down the aggregates into detailed subject headings, within these two broad groups. Over the period from 1958 to 1978, which the statistics cover, there have been substantial rises in the numbers of qualified persons, varying to some extent in detail in response to market demands.

Further information about statistics of manpower

qualified in science, engineering and technology can be obtained from:

Economics and Statistics Division 6B,  
Department of Industry,  
Room 106,  
Abell House,  
John Islip Street,  
London SW1P 4LN.  
Telephone: 01-211 7152.

#### **References**

*Trade and Industry/British business* 11 January 1980 (HMSO, weekly, Price 50p net).  
*Economic Trends* No. 269, March 1976 (HMSO).

### **New Earnings Survey 1980**

In the New Earnings Survey 1980, information is again being obtained from employers about the earnings and hours for one pay-period and the characteristics of a one per cent random sample of employees in employment of all kinds in Great Britain. The 1980 survey questionnaire excludes the extra information collected in 1979 in order to meet EEC regulation 495 of 1978. Otherwise the questionnaire is very similar to that for the last seven surveys. The 1979 question on employees' national insurance category has been replaced by one asking whether the employee is paid adult rates, and one on timing of implementation of pay settlements.

### **Survey into Earnings and Hours by Occupation**

The next six-monthly survey into earnings and hours of manual workers in certain occupations in the ship-building and ship-repairing, and chemical industries would normally have been held in January 1980.

As part of the Department of Employment's contribution to reducing public expenditure, it was decided not to carry out this survey but the corresponding survey in respect of June each year will continue.

### **Manpower planning**

Recent issues of the *Employment Gazette* have included further articles on manpower planning and related subjects (*Statistical News* 46.28, etc.). The June 1979 issue contained an article on the changing composition of the labour force between 1976 and 1991. The July 1979 issue had three articles, the first on the impact of the new micro-electronic technology on future jobs and job opportunities, a second on some detailed results of the quarterly survey of skill shortages, and finally one on part-time working in Great Britain. In August 1979 an article dealt with the problems of employment and unemployment in the English inner cities, and in October 1979 there was another article on skill shortage indicators from the quarterly survey. The November 1979 issue contained an article discussing education and

training in the 1980s. In the December 1979 issue the first results from a national survey on the early careers of graduates were published, with further articles scheduled to appear early this year.

#### Reference

*Employment Gazette* June, July, August, October, November and December 1979 issues (HMSO) (Price £1.35 net).

### Occupational segregation

A Research Paper has been issued by the Department of Employment looking at the degree and patterns of differentiation between men and women's work in Britain, the United States and other countries. The increasing contribution of women in the labour force has often been seen as leading to a breakdown of traditional distinctions between men's and women's work. The paper examines census data between 1901 and 1971 with a view to seeing whether this has happened.

The paper reviews methodological problems in the development of measures of occupational segregation. Measures of horizontal and vertical segregation offering validity and reliability in relation to time series data for a country and for international comparative studies are selected. Data for Britain for the period 1901-71 show some decline in horizontal occupational segregation and some increase in vertical occupational segregation, producing an overall picture of continuity within change, a pattern very similar to that observed in the United States and other countries. The types of occupation in which women and men are over-represented have changed since the turn of the century, but women increasingly form the majority of the labour force in the lowest grades of white collar and blue collar work, often in occupations which mirror functions carried out on an unpaid and non-specialist basis in the home. Although large numbers of women work part-time, it was found that part-time working did not affect the pattern of job segregation. Vertical occupational segregation was found to be less marked in some other countries. The study relates to the period before the introduction of sex discrimination legislation in Britain and thus provides the historical backcloth against which the impact of such legislation might be assessed in due course. The implications of occupational segregation are discussed with reference to dual labour market theory, unemployment, sex discrimination legislation and women's attitudes to work: it is argued that longitudinal data on women's and men's work profiles is needed; and the possibilities for extending measures of segregation to data on education and crime are considered.

#### Reference

*Occupational segregation: a comparative study of the degree and pattern of the differentiation between men and women's work in Britain, the United States and other countries.* Department of Employment Research Paper 9. Obtainable from:  
Information Directorate,  
Department of Employment,  
Caxton House,  
Tothill Street,  
London SW1H 9NA.

## AGRICULTURE AND FOOD

### Agricultural censuses and surveys

#### *The March 1978 Mushroom Survey*

The results of this survey for England and Wales were published in Statistical Information Notice Stats 332/79 on 27 November 1979.

#### *The December 1978 Agricultural Machinery Census*

The results of this enquiry for England and Wales were published in Statistical Information Notice Stats 298/79 on 25 October 1979.

#### *The June 1979 Agricultural Census*

The provisional results for the United Kingdom were published in Statistical Information Notice Stats 273/79 on 5 October 1979.

#### *The June 1979 Horticultural Crops Census*

The provisional results for England were published in Statistical Information Notice Stats 324/79 on 20 November 1979.

#### *The August 1979 Sample Pig Enquiry*

The results of this enquiry for England and Wales and the United Kingdom were published in Statistical Information Notice Stats 281/79 on 10 October 1979.

#### *Estimated yields and production of crops - 1978 harvest*

The County/Regional results PC/EW for England and Wales were published in October 1979.

#### *The June 1979 Agricultural Census for England and United Kingdom*

The final results will be published shortly.

The statistical material mentioned above may be obtained from:

Ministry of Agriculture, Fisheries and Food,  
Room A615,  
Government Buildings,  
Epsom Road,  
Guildford GU1 2LD.

### Agricultural price indices for the United Kingdom

New indices of agricultural prices for the United Kingdom are introduced in an article by L. J. Angel,

Ministry of Agriculture, Fisheries and Food, published in the October 1979 issue of *Economic Trends* No. 312. Series have been produced covering prices of the means of agricultural production and for prices received by agricultural producers. The article includes details of the results from 1973 to July 1979, together with lists of indicator items included, and their annual weights. A seasonal weighting pattern is incorporated to take account of the changing 'basket' of goods sold by farmers over the marketing period.

#### **Agricultural land: its ownership, price and rent**

An article by P. J. Lund and J. M. Slater of the Ministry of Agriculture, Fisheries and Food giving a guide to the sources of statistical information on ownership, price and rent of agricultural land in the United Kingdom appeared in the December 1979 issue of *Economic Trends* No. 314. The article describes the sources and coverage of the available statistical information for the separate countries, provides tables which summarise the various series and comments on the broad patterns and trends which they reveal.

#### **August 1979 Sample Pig Census – Scotland**

The results of the August 1979 Sample Pig Census in Scotland were published as a Scottish Office Press Notice on 28 September 1979 (Press Notice 849/79).

#### **Final Results of the June 1979 Scottish Agricultural Census.**

The final results of the Scottish Agricultural Census held in June 1979 were published as a Scottish Office Press Notice on 4 January 1980 (Press Notice 1240/80).

### **INDUSTRIAL STATISTICS**

#### **The content of closed shop agreements in British industry**

An article in the November issue of the *Employment Gazette* presents preliminary findings from an analysis of a sample of written closed shop agreements in British industry – now commonly known as union membership agreements (UMAS). The analysis forms part of a project on the closed shop in Britain being carried out by a research team at the London School of Economics and financed by the Department of Employment. As part of their overall enquiries, the researchers have examined the content and form of 136 agreements which are drawn from 80 separate employers and include 33 agreements covering 1.2 million workers from the public sector and 103 agreements covering 0.5 million workers from the private sector. The article considers in detail recent

changes in the nature of closed shop agreements, the protection offered in agreements to new employees and existing non-members who object to compulsory union membership, and the procedures contained in agreements to deal with problems that might arise from their implementation and operation.

The results show that negotiators have concluded increasingly sophisticated agreements to define precisely the rights and obligations of workers where union membership exists as a condition of employment. Work is continuing and it is expected that further articles will be published, initially on the extent and coverage of closed shop arrangements in British industry.

#### **Reference**

John Gennard, Stephen Dunn and Michael Wright, 'The content of British closed shop agreements', *Employment Gazette*, November 1979, pages 1088–1092 (HMSO) (Price £1.35 net).

#### **Construction industry statistics collected by the Ministry of Works 1941–1956**

In two volumes this publication presents the principal construction statistics for the period 1941–1956 most of which are unpublished or otherwise inaccessible. The work is divided into six sections covering Censuses of Contractors and Direct Labour organisations; Contractors' Registration Statistics; Output and Employment Statistics; and Statistics of Building Materials Prices and Production.

The publication is available from:

Department of the Environment,  
Statistics Construction Division,  
Room S11/15,  
2 Marsham Street,  
London SW1P 3EB.

The nature of the statistics presented in this publication are also considered at length in the Reviews of UK Statistical Sources, *Volume 12 Construction and the Related Professions* by M. C. Fleming of Loughborough University (Pergamon Press).

#### **Reference**

*Statistics collected by the Ministry of Works 1941–1956* by M. C. Fleming and S. R. Rowden (Department of the Environment 1980) (forthcoming).

#### **Price index of public sector housebuilding**

The Department of the Environment's price index of public sector housebuilding (PIPSH) has superseded the price index of local authority housebuilding (PILAH) and is now published in *Housing and Construction Statistics*. It is used by the Department to monitor price movements of public sector housing, in setting cash limits, in establishing the level of the Department's housing cost yardstick and in deflating to constant prices public and private sector housing orders and output information.

PILAH was produced from 1965 until the fourth quarter of 1978 from information provided by local authorities in England (excluding Greater London) and Wales on tenders accepted for traditionally built housing of one or two storeys. Following a review the new index has been produced with a wider coverage than PILAH so that it provides an improved indicator of the movements of tender prices of public sector housebuilding. It is based on tenders for local authority housing in blocks of up to four storeys of traditional construction and includes London housing authorities which had previously been excluded because the amount of one or two storey traditionally built housing in London was small when an index was first established. In addition housing association and new town schemes are now included.

The methodology of the index is the same as that for PILAH, described in *Statistical News* No. 22, being based on prices of 23 representative items of work which occur in most housing contracts, although with some changes in specification.

There have also been revisions to the weights which are applied to the items and new weights for combining regional sub-indices to produce the national index have been calculated reflecting the expanded coverage of PIPSH. In common with other government indices the new index is based on 1975.

In order to link the new PIPSH series with the PILAH series, tender price information was collected to enable a value of PIPSH as well as PILAH to be calculated for the fourth quarter of 1978.

#### Reference

*Housing and Construction Statistics* (HMSO) (forthcoming).

### Commercial and industrial floorspace

The Department of the Environment recently published the seventh issue of its series of commercial and industrial floorspace statistics giving the estimated stock at 1 April 1978 and the changes in floorspace since 1975. The publication updates the results of the 1974 Floorspace Census carried out by the Inland Revenue and the subsequent annual changes in floorspace which were reported in *Statistics for Town and Country Planning Series II Floorspace No. 4* and *Commercial and Industrial Floorspace Statistics England and Wales 1974-77* respectively.

*Commercial and Industrial Floorspace Statistics, England and Wales 1975-78* gives the estimated floorspace stock in seven non-domestic use categories (Industry, Warehouses (covered), Warehouses (open land storage), Shops with living accommodation, Shops and restaurants and Commercial offices) for regions, counties and local authority areas. In Wales statistical sub-divisions are used in place of counties. Apart from

Warehouses (open land storage) for which no size grouping is available each of the use categories is analysed by three or four size groups in the regional tables. The publication shows for the same six use categories net and gross changes in floorspace area during 1975 and 1978. Increases in floorspace are shown separately for extensions, new and changes of use, while decreases distinguish between demolition and other reductions. Finally, the booklet includes detailed notes about these statistics and a short commentary on the figures.

Provisional 1979 data appeared in the Central Statistical Office's publication *Regional Statistics 15* 1980 Edition.

The needs of the users of commercial and industrial floorspace statistics are currently being reviewed. Any views on how well this publication satisfies the requirements of the reader would be welcomed. Correspondence should be sent to the address below.

Further details about the availability of floorspace figures can be obtained from:

Mr. T. F. J. Hobson,

S7/25,

Department of the Environment,

2 Marsham Street,

London SW1.

Telephone: 01-212 8473.

#### Reference

*Commercial and industrial floorspace statistics, England and Wales 1975-78* (HMSO) 1979 (Price £4.25 net).

*Regional Statistics 15* 1980 Edition (HMSO) February 1980 (Price £11.75 net).

### Commercial and industrial property

*Commercial and Industrial Property Statistics 1978* the second edition of an annual publication covering a wide range of subjects relevant to the business property market, was published in December 1979.

Likely to arouse most interest are the eight indices of rents charged for new leases on different types of offices, shops and factories from 1962 to 1978 compiled from data provided by the Inland Revenue. Other tables give the latest figures on the stock of buildings in the United Kingdom, the volume of new buildings constructed each year and the number and value of sales of each type of property analysed by price, region, tenure and the type of seller and buyer between 1974 and 1977. Movements in the cost of construction during the 1970s are also provided. A financial section draws together from a wide variety of sources data on rent income; investment in land, property and ground rents; taxes on rent and property; bank advances to construction and property companies; and Regional Development Grants. Tables are also given on Office Development Permits, Industrial Development Certificates (including in this



edition Scotland for the first time) and planning applications.

**Reference**

*Commercial and Industrial Property Statistics 1978* (HMSO) December 1979 (Price £3.00 net).

**Private Contractors' Construction Census 1978**

The annual census relating to the output and employment of private contractors in the construction industry in 1978 was released to the press in December 1979.

The report contains four historical tables showing the number of firms, with their employment and output from 1973 to 1978. Also included are twenty-eight detailed tables relating to employment in October 1978 and output in the third quarter of 1978. These tables present employment and output analysed by type of work, size of firm, trade and region of registration.

**Reference**

*Private Contractors' Construction Census 1978* (HMSO) December 1979 (Price £2.00 net).

**Business Monitor PO1006 – Statistics of Product Concentration for United Kingdom Manufacturers for 1975, 1976 and 1977**

Statistics of product concentration for UK manufacturers for 1975, 1976 and 1977 are to be published in Business Monitor PO1006 in April 1980. This Monitor has been designed to show information about concentration in recent years at a more detailed level than in previous publications.

The product headings employed in the Quarterly inquiries have been divided into approximately 800 groups. Concentration ratios, a measure of the degree to which the manufacture of a product is spread across different UK manufacturers, have been calculated for these product groups based on the sales collected in the quarterly inquiries. A second table has been included to show concentration ratios at an industry level evaluated on the total sales information returned by contributors to the quarterly inquiries.

This Business Monitor is a sequel to the earlier version of PO1006 *Statistics of Product Concentration* for 1963, 1968 and 1975 (published November 1979 price £2.50 net) which gave ratios for 350 or so product groups which had previously been published as part of the old style Census of Production.

Further details may be obtained from:

Mr. O. Black,

Business Statistics Office,

Cardiff Road,

Newport,

Gwent NPT 1XG.

Telephone: Newport 56111 (STD Code 0633)

Ext. 2165.

**Business Monitor PO1000 – Index of Commodities**

A new edition of the Index of Commodities is now available as Business Monitor PO1000. The Index lists most products covered by the quarterly PQ series of Business Monitors giving statistics of manufacturers' sales. For each entry the Index gives the PQ number of the Business Monitor in which information relating to it is published. The PQ numbers correspond to Minimum List Headings in the Standard Industrial Classification (1968 revision).

There are over 8,000 entries in the Index or about twice as many as in the previous edition, which was published as Business Monitor PQ1000 in 1974. The omission of a commodity does not necessarily mean that it is not produced in the United Kingdom.

Some commodities shown in the Index do not appear separately in the Monitors but only as part of a wider group of commodities. Such cases may occur, for example, where the information is not collected in sufficient detail or where objection has been made to the publication of separate figures because of disclosure of information relating to individual undertakings.

*Business Monitor PO1000, The Index of Commodities* (ISBN 0 11 512695 3) is available from HMSO Bookshops price £3.00 net, or on standing order.

**Business Monitor PO1007 – Classified List of Manufacturing Businesses 1979**

This Classified List of Manufacturing Businesses is the first to be published in the Business Monitor series, although previous lists were issued by the Business Statistics Office in 1976 and as part of the Report on the Census of Production 1968. The List has been compiled from the register of manufacturing businesses in the United Kingdom maintained by the Business Statistics Office primarily for conducting statistical inquiries.

Much of the information contained on the register has been collected in statutory inquiries carried out under the Statistics of Trade Act, 1947. Particulars of individual businesses on the register cannot, therefore, generally be disclosed without contravening the provisions of the Act, unless written permission has been given. However, in the Annual Census of Production for 1970 and later years contributors were asked if they were willing to have the name and address of their business included in a classified list of businesses. These consents have permitted the preparation of the current List. It contains the names and addresses of businesses classified to the manufacturing sector which had agreed to be included when the List was assembled in the first half of 1979 but in the main reflects the consents and information obtained in the Annual Census of Production for 1977.

The List is in ten parts and is arranged alphabetically by the name of business within each manufacturing industry separately distinguished in the register of manufacturing businesses. The numbers of Minimum List Headings or sub-divisions of the Minimum List Headings of the Standard Industrial Classification in Orders III to XIX are shown. The complete List contains some 27,000 business addresses and covers approximately two-thirds of the employment in the manufacturing sector. An estimate is given for each industry of the employment covered by the units listed as a percentage of that for the industry as a whole. In general, the shortfall from 100 per cent in employment terms is mainly accounted for by those businesses which have not consented to their inclusion and only to a lesser extent by the more numerous smaller businesses exempted from the annual census of production from whom no consent was sought.

The List has been published as Business Monitor PO1007, price £42.75 net for the complete set of 10 parts. Each part can be bought separately and is individually priced. The Monitor is available at HMSO bookshops or can be ordered from HMSO Books, PO Box 569, London SE1 9NH.

#### List of parts with prices

Part	Standard Industrial Classification Order	Industry	Price (excl. postage) £
1	III	Food, drink and tobacco	4.00
2	IV	Coal and petroleum products	5.00
	V	Chemicals and allied industries	
	XVI	Bricks, pottery, glass, cement, etc.	
3	VI	Metal manufacture	4.25
	X	Ship building and marine engineering	
	XI	Vehicles	
4	VII	Mechanical engineering	5.00
5	VIII	Instrument engineering	4.00
	IX	Electrical engineering	
6	XII	Metal goods not elsewhere specified	4.25
7	XIII	Textiles	3.75
8	XIV	Leather, leather goods and fur	4.00
	XV	Clothing and footwear	
9	XVII	Timber, furniture, etc.	4.50
	XIX	Other manufacturing industries	
10	XVIII	Paper, printing and publishing	4.00

The List is also available in magnetic tape form produced on ICL 1900 series equipment. Further information about this version may be obtained from the Business Statistics Office Librarian (Ext. 2973) at the address below.

#### Content Inquiries:

Business Statistics Office,  
Cardiff Road,  
Newport,  
Gwent NPT 1XG.  
Telephone: Newport 56111 (STD. Code 0633)  
Ext. 2658.  
Telex: 497121.  
Answer back BSO NPT G.

**Business Monitors – Annual Census of Production 1976**  
Readers of *Statistical News* are made aware of the results of the 1976 Census of Production as the Business Monitors become available. The following table lists the monitors published since that which appeared in the last number of *Statistical News*.

Business Monitor Number PA Series	Description	Standard Industrial Classification Minimum List Heading
102	Stone and slate quarrying and mining	102
103	Chalk, clay, sand and gravel extraction	103
109	Miscellaneous mining and quarrying	109/1/2/3 and 4
214	Bacon curing, meat and fish products	214
239.1	Spirit distilling and compounding	239/1
263	Lubricating oils and greases	263
272	Pharmaceutical chemicals and preparations	272
279.2	Formulated adhesives, gelatine, etc.	279/2
279.4	Formulated pesticides, etc.	279/4
313	Iron castings, etc.	313
335	Textile machinery and accessories	335
339.1	Mining machinery	339/1
339.9	Miscellaneous (non-electrical) machinery	339/9
341	Industrial (including process) plant and steelwork	341
352	Watches and clocks	352
370	Shipbuilding and marine engineering	370
399.8	Miscellaneous metal manufacture	399/2, 3, 4 and 399/8, 9, 10, 11 and 12
412	Spinning and doubling on the cotton and flax systems	412
417.2	Warp knitting	417/2
422.1	Household textiles and handkerchiefs	422/1
432	Leather goods	432
441	Weatherproof outerwear	441
469.2	Miscellaneous building materials and mineral products	469/2
603	Water supply	603

All 163 Business Monitors in the series have now been published.

#### Business Monitor – Annual Census of Production 1976 PA1002 – Summary Volume

The Summary Volume of the Annual Census of Production 1976 (PA1002) will shortly be available price £6.25 net. As in previous years this summarises results previously published in the separate industry monitors (PA101 to PA603). It also provides analyses of the census data by enterprise, including concentration ratios for the five largest enterprises and size analyses by net output, employment and sales. Further tables show information relating to the 100 largest private sector enterprises.

**Business Monitors – Annual Census of Production 1977**  
As the Business Monitors reporting the results of the 1977 Census become available they will be brought to the attention of the readers of *Statistical News*. A list of the first of these monitors which have been published follows:

Business Monitor Number PA Series	Description	Standard Industrial Classification Minimum List Heading		
1001	Introductory notes			
101	Coal mining	101		
102	Stone and slate quarrying and mining	102		
103	Chalk, clay, sand and gravel extraction	103		
211	Grain milling	211		
212	Bread and flour confectionery	212		
229.1	Margarine	229/1		
240	Tobacco	240		
262	Mineral oil refining	262		
272	Pharmaceutical chemicals and preparations	272		
273	Toilet preparations	273		
274	Paint	274		
277	Dyestuffs and pigments	277		
279.1	Polishes	279/1		
279.2	Formulated adhesives, gelatine, etc.	279/2		
279.3	Explosives and fireworks	279/3		
279.4	Formulated pesticides, etc.	279/4		
279.5	Printing ink	279/5		
279.6	Surgical bandages, etc.	279/6		
311	Iron and steel (general)	311		
331	Agricultural machinery (except tractors)	331		
332	Metal-working machine tools	332		
334	Industrial engines	334		
336	Construction and earth-moving equipment	336		
337	Mechanical handling equipment	337		
339.1	Mining machinery	339/1		
339.7	Food and drink processing machinery and packaging and bottling machinery	339/7		
342	Ordnance and small arms	342		
349.1	Ball, roller, plain and other bearings	349/1		
363	Telegraph and telephone apparatus and equipment	363		
365.2	Broadcast receiving and sound reproducing equipment	365/2		
369.4	Electric lamps, electric light fittings, wiring accessories, etc.	369/4 and 5		
381.1	Motor vehicle manufacturing	381/1		
381.2	Trailers, caravans and freight containers	381/2		
384	Locomotives, railway track equipment, railway carriages, wagons and trams	384/385		
391	Hand tools and implements	391		
393	Bolts, nuts, screws, rivets, etc.	393		
399.5	Drop forgings, etc.	399/5		
399.6	Metal hollow-ware	399/6 and 7		
411	Production of man-made fibres	411		
412	Spinning and doubling on the cotton and flax systems	412		
415	Jute	415		
416	Rope, twine and net	416		
421	Narrow fabrics	421		
429.2	Miscellaneous textile industries	429/2		
432	Leather goods	432		
449.2	Gloves	449/2		
461.1	Refractory goods	461/1		
461.2	Building bricks and non-refractory goods	461/2		
464	Cement	464		
471	Timber	471		
472	Furniture and upholstery	472		
479	Miscellaneous wood and cork manufacturers	479		
481	Paper and board	481		
482.1	Cardboard boxes, cartons and fibre-board packing cases	482/1		
482.2	Packaging products of paper and associated materials	482/2		
483	Manufactured stationery	483		
484.1	Wallcoverings	484/1		
484.2	Miscellaneous manufacturers of paper and board	484/2		
489	General printing and publishing	489		
491	Rubber	491		
492	Linoleum, plastic floor-covering, leathercloth, etc.		492	
493	Brushes and brooms		493	
494.3	Sports equipment		494/3	
495	Miscellaneous stationers' goods		495	
499.1	Musical instruments		499/1	
499.2	Miscellaneous manufacturing industries		499/2	

## Business Monitor – Annual Census of Production 1978 PA1000 – Provisional Results

This volume, the first relating to the Census of Production 1978 will shortly be released. It shows estimates for some of the principal results of the 1978 Census with comparative data for 1976 and 1977. In addition to information about output and capital expenditure, it provides data for total sales and work done, cost of purchases, and an analysis of employment and wages and salaries between operatives and other employees. A table has been included on operating ratios, calculated from census measures of output, investment, manpower and labour costs.

Copies of these Business Monitors are available on standing order from Her Majesty's Stationery Office, PO Box 569, London SE1 9NH (Telephone: 01-928 1321), or through any Government Bookshop. They are not, however, included in the global subscription arrangements of the Business Monitor series.

Further information on the PA series of Business Monitors and the Censuses generally can be obtained from:

Mr. R. J. Egerton,  
Business Statistics Office,  
Cardiff Road,  
Newport,  
Gwent NPT 1XG.  
Telephone: Newport 56111 (STD code 0633)  
Ext. 2455.

## Health and safety at work – health risks in the rubber industry

A Health and Safety Executive report entitled *Mortality in the British Rubber Industries 1967–76* is shortly to be published by HMSO. The report, written by Dr. P. J. Baxter (Employment Medical Adviser) and Mr. J. B. Werner (Statistician), describes a survey of nearly 41,000 men working in rubber factories in which the causes of death of those dying during the ten year period 1967–76 were considered.

The report confirms that men who worked in factories where anti-oxidants based on 1- and 2-naphthylamine were used, before the withdrawal of these substances in 1949, suffered an excess risk of dying from bladder cancer. It is also shown that men in the industry who could never have been exposed to these substances, since they either started work after 1949 or worked in

factories where they were never used, suffered no such excess risk. The findings therefore support the view that the known bladder cancer problem in the rubber industry was caused by exposure to the suspect anti-oxidants.

Excesses of lung cancer deaths across the entire industry and of stomach cancer deaths in the tyre sector are shown. Analysis by occupational category suggests that the lung cancer excess could have been caused by exposure to fume given off by the rubber mixture when heated during processing. No firm evidence is provided by the study about the cause of the stomach cancer excess, although it is suspected that this may have been brought about by exposure to the dusts of chemicals which are mixed with raw rubber in the earlier stages of the manufacturing process.

The report describes the action being taken by the Health and Safety Executive, in collaboration with the British Rubber Manufacturers' Association and the trade unions, to achieve improvements in hygiene control in the industry. A survey of standards of dust and fume control has been mounted, and a major effort is to be devoted to promoting the use of efficiently engineered ventilating systems in the affected work areas.

#### Reference

*Mortality in the British Rubber Industries 1967-76* (HMSO) (forthcoming).

## ENERGY

### Energy projections 1979

This paper, published by the Department of Energy in October 1979 presents the results from the Department's latest round of energy forecasts. The new forecasts update those published in the 1978 Green Paper *Energy policy* (Cmnd 7101).

The forecasts examine possible UK energy requirements to the end of the century based on assumptions about economic growth, for which two alternatives are considered, and movements in oil prices, and incorporating allowances for energy conservation. They also explore ways in which these demands might be met by the various fuels, having regard to relative cost and availability. Intermediate estimates are given for 1990, the planning horizon for much present investment, and a brief look is taken at possible developments beyond the end of the century.

The forecasting methodology generally follows that described in Energy Paper No. 29, the demand for energy being estimated on a fuel by fuel basis in each of the five sectors of the economy: domestic, iron and steel, other industry, transport and 'other consumers'. An annex provides estimates of final energy demand by fuel in each of these sectors.

#### References

*Energy forecasting methodology* (Energy paper number 29) (HMSO 1978) (Price £3.25 net).

*Energy Projections 1979*. Obtainable, free of charge, from:

Department of Energy Library,  
Thames House South,  
Millbank,  
London SW1P 4QJ.

## DISTRIBUTION AND SERVICES

### Annual retailing inquiries 1976 and 1977

Business Monitors SDA25 *Retailing 1976* and SDA25 *Retailing 1977* are now available from Her Majesty's Stationery Office.

SDA25 *Retailing 1976* (169 pages £4.50 net, ISBN 0 11 512688 0) contains the full detailed results from the 1976 Inquiry which was the first of the new series of annual sample inquiries. The results from these annual sample inquiries replace the information on organisations given in the Census of Distribution, but being conducted on a sample basis they do not provide the detailed geographical data which were a feature of the censuses.

The results are estimates of the total retail trade in Great Britain analysed by kind of business, form of organisation and size of business. The data shown include turnover, sales by commodity (both over the standard list of headings and an expanded list on which data were requested from larger businesses in the 1976 Inquiry), purchases, stocks, gross margins, capital expenditure and analyses of persons engaged and credit sales. In addition some information to help link the results of the Retailing Inquiry with that from the 1971 Census of Distribution is given.

SDA25 *Retailing 1977* (112 pages, £3.75 net, ISBN 0 11 512698 2) contains the results of the 1977 Inquiry. It differed from the 1976 Inquiry in some respects: the data on sales by commodity did not include an expanded breakdown, there was only a total figure of persons engaged sought from contributors, and no data on credit sales were asked for.

Inquiries about the content of these Business Monitors should be addressed to:

Retail Inquiry Section,  
Room 4.1A,  
Business Statistics Office,  
Cardiff Road,  
Newport,  
Gwent NPT 1XG.

Telephone: Newport 56111 (STD Code 0633)  
Ext. 2000.

## TRANSPORT

### Road Accidents: Great Britain

The 1978 edition of *Road Accidents Great Britain* is being published in early 1980 by the Department of Transport, the Scottish Development Department and the Welsh Office. It presents in almost 50 tables and 4 charts, final statistics for 1978 and trends for the 11 years since 1968. One table examines the incidence of road deaths as compared with all other causes of death in Great Britain showing the main age groups, while another presents road deaths and death rates on an international basis.

There are several short reviews on topics of general interest. In particular two-wheeled motor vehicle users are considered in relation to the August 1977 legislation which prevented the sale of further 'super mopeds' (capable of speeds up to 70 mph) and reduced 16 year old casualties; 'Drink and drive' is again reconsidered in some detail, the data showing that the immediate improvement brought about by the 1967 (Breathalyser) legislation was not sustained. The drink/drive position has deteriorated since 1969, with 1975 being the worst year so far. Other articles cover pedestrian and pedal cyclist casualties and the cost of accidents.

#### Reference

*Road Accidents: Great Britain* (HMSO 1980) (forthcoming).

### Transport Statistics Great Britain

The 1968–1978 edition of this annual publication, published by HMSO in December, contains 177 tables on a wide range of transport topics. Among the new tables included in this issue are:

Previously unpublished analyses from the 1975/76 National Travel Survey.

Information on journeys of more than 25 miles drawn from the Department of Transport's Long-distance Travel Surveys.

Additional data on road traffic concentrating on daily traffic and flows by class of road, vehicle and month of year.

A breakdown of loaded passenger train kilometres into the principal service group.

An additional table on roll-on/roll-off ferry traffic between Great Britain and Continental Europe analysed by groups of British ports and country of embarkation/disembarkation.

Data for 1968–1978 for passenger and freight Hovercraft services operated by British Rail.

The publication follows the format of earlier editions. Most of its tables cover the eleven years 1968 to 1978 although some span shorter or longer periods; some contain forecasts for years ahead. To provide a wider setting for the inland surface transport series some

summary tables on air and sea transport are included as are key transport figures relating to other countries.

#### Reference

*Transport Statistics Great Britain 1968–1978* (HMSO, 1979) (Price £7.00 net).

## INCOME AND WEALTH

### Royal Commission

The Royal Commission on the Distribution of Income and Wealth, which was set up under the chairmanship of Lord Diamond in 1974, was dissolved at the end of July 1979. The Royal Commission prepared five reports on its standing reference, which was to analyse and report on the current distribution and past trends in the distribution of personal income, and of personal wealth, in the United Kingdom. The last of these reports was published in October 1979. Also prepared were reports on three special references – income from companies, higher incomes from employment, and lower incomes. These eight reports, together with four volumes of evidence and eight background papers, form a substantial and comprehensive review of all available information in this field. A complete list of the Commission's publications is given below.

One further report, *An A to Z of Income and Wealth*, was published in January 1980. This short summary draws on all the work carried out by the Royal Commission over the five years of its existence. It is presented in simple language, free of technical jargon, and is copiously illustrated with colour diagrams. Basic questions about income and wealth are answered in sections covering work and pay, income and taxation, categories of wealth, and how wealth is accumulated. The report provides a valuable summary of the Royal Commission's work and it will be of interest to a wide variety of people, including sixth-formers and undergraduates. It is available from HMSO at the attractive price of £1.25.

#### Reference

Publications of the Royal Commission on the Distribution of Income and Wealth Reports

No. 1, Initial report on the standing reference. (Cmnd. 6171), (HMSO, 1975).

No. 2, Income from companies and its distribution. (Cmnd. 6172), (HMSO, 1975).

No. 3, Higher incomes from employment. (Cmnd. 6383), (HMSO, 1976).

No. 4, Second report on the standing reference. (Cmnd. 6626), (HMSO, 1976).

No. 5, Third report on the standing reference. (Cmnd. 6999), (HMSO, 1977).

No. 6, Lower incomes. (Cmnd. 7175), (HMSO, 1978).

No. 7, Fourth report on the standing reference. (Cmnd. 7595), (HMSO, 1979).

No. 8, Fifth report on the standing reference. (Cmnd. 7679), (HMSO, 1979).

#### Volumes of evidence

Selected evidence submitted to the Royal Commission for Report No. 1 (HMSO, 1976).

Selected evidence submitted to the Royal Commission for Report No. 2 (HMSO, 1976).

Selected evidence submitted to the Royal Commission for Report No. 3 (HMSO, 1976).

Selected evidence submitted to the Royal Commission for Report No. 6 (HMSO, 1978).

#### Background papers

No. 1, The financing of quoted companies in the United Kingdom: by Geoffrey Meeks and Geoffrey Whittington – a background paper to Report No. 2 (HMSO, 1976).

No. 2, Analysis of managerial remuneration in the United Kingdom and overseas; a report by HAY-MSL – a background paper to Report No. 3 (HMSO, 1976).

No. 3, The effects of certain social and demographic changes on income distribution: by Robert Dinwiddy and Derek Reed – a background paper to Report No. 5 (HMSO, 1977).

No. 4, The distribution of income in eight countries: by Thomas Stark – a background paper to Report No. 5 (HMSO, 1977).

No. 5, The causes of poverty: by R. Layard, D. Piachaud and M. Stewart – in collaboration with N. Barr, A. Cornford and B. Hayes – a background paper to Report No. 6 (HMSO, 1978).

No. 6, Low incomes in Sweden: by John Greve – a background paper to Report No. 6 (HMSO, 1978).

No. 7, The distribution of wealth in ten countries: by Alan Harrison – a background paper to Report No. 7 (HMSO, 1979).

No. 8, A six-country comparison of the distribution of industrial earnings in the 1970s: by Christopher Saunders and David Marsden – a background paper to Report No. 8 (HMSO, 1979).

## HOME FINANCE

### Financial statistics

The November issue of *Financial Statistics* contained a list of press notice release dates of financial statistics for the following month. This will be a regular feature in subsequent issues.

In the December issue the table on currency circulation was discontinued. The summary table on sources and uses of funds of other financial institutions now shows details of overseas securities separately identified and a revised presentation of the insurance company and pension funds figures also gives similar details as well as additional information including holdings of investments by pension funds. The table on Trustee Savings Banks now reflects the change in sector of the ordinary department which has been amalgamated with the new department. Details of deposits formerly shown in tables 3.13 and 3.14 are now given in table 8.2. The tables on income and finance of listed companies have been discontinued pending publication of a new series in the second half of 1980. The table on consumer credit now shows amounts outstanding at 31 December 1978. Details of the current account of the Balance of Payments are no longer included. Separate figures for local authority borrowing for England and Wales and for Scotland are now being shown in a regular quarterly supplementary table.

#### Reference

*Financial Statistics* November and December 1979 (HMSO) (Price £3.40 net, each).

### Local authority borrowing

The November edition of *Economic Trends* contains an article about trends in some aspects of local authority borrowing during a period leading up to and including high inflation and volatile interest rates. Graphs and tables are presented which illustrate changes in net

temporary borrowing, used mainly to aid cash flow, and in gross long term borrowing and repayments associated with capital expenditure. It is indicated that as interest rate fluctuations increase, so the patterns of borrowing become less stable with greater emphasis on internal borrowing. Within the year the recently started monthly borrowing inquiry provides data which indicates a distinct seasonal pattern to local authorities borrowing. Inquiries regarding the article or aspects of local authority borrowing not covered there should be addressed to:

A. D. Butler,  
Room N4/11,  
Department of the Environment,  
2 Marsham Street,  
London SW1P 3EB.  
Telephone: 01-212 3328.

### Distribution of the National Debt at end-March 1979

An article in the Bank of England's December 1979 *Bulletin* continues the annual series which was begun in June 1962. In a supplementary note to the national debt article, it is pointed out that the national debt in market hands as a proportion of GDP was no higher in March 1979 than in March 1973, despite the growth of the nominal value. This is because inflation erodes the real value of debt denominated in nominal terms. Reference is made to a Bank discussion paper entitled, "'Real' national saving and its sectoral composition", *Bank of England Discussion Paper No. 6*, October 1979, which presents estimates of each sector's saving after adjusting for the effective repayment of the capital element in debt interest.

### Composition of company boards

An article in the Bank of England's December 1979 *Bulletin* summarised the results of a Bank survey which attempted to update the Bullock Committee's analysis of the size of the boards of companies and the extent to which companies employ non-executive directors. The survey found that the use of non-executive directors had become more widespread among the top 1,000 companies since the Bullock Committee's survey in 1976. The proportion of companies with three or more such directors had risen from just over a third to just over half, whereas those without any had fallen from 25 per cent to 12 per cent. As the size of company boards had scarcely changed over the period (with very few companies having boards with more than 15 directors), this would suggest that non-executive directors have been increasing not only in number, but also proportionately.

### **The profitability of UK industrial sectors**

An article in the Bank of England's December 1979 *Bulletin* examined differences in profitability between eight sectors of UK industry and concludes that the downward trend, seen in aggregate real profitability during the 1960s and most of the 1970s, followed a modest recovery in recent years, was fairly widespread among the industrial groupings examined. The article compares the levels of, and trends in, recorded pre-tax rates of return on trading assets in each sector; the differences in the size of adjustments to reported profits to obtain inflation-adjusted profits between sectors; gives estimated real rates of return on total trading assets, and contrasts estimates of real rates of return on equity. The article concludes that real rates of return on trading assets seem to have been higher in distribution and service industries than in manufacturing. Historic cost pricing seems to have remained prevalent throughout much of industry. The divergence of real from recorded rates of return on equity has increased, implying that value concentration on recorded equity profits may have misled employers, employees and the stock market as to the real profitability of UK companies.

### **The Government's Expenditure Plans 1980-81**

A White Paper on the Government's Expenditure Plans in 1980-81 (Cmnd 7746) was published in November 1979. It sets out the government's plan for public expenditure in 1980-81 expressed at 1979 survey prices. The plans by spending authority and main functional programme are given together with their trend in expenditure since 1974-75. The figures for 1979-80 are expected outturns.

The planning total of public expenditure after shortfall in 1980-81 will be sustained at about the same level as in 1978-79. The plans for 1980-81 provided for growth in some programmes particularly defence, law and order, and social security, and there are reductions in other services. Brief comments of the individual programmes for 1980-81 are provided. The expenditure plans for years after 1980-81 will be published in a later White Paper.

#### **Reference**

*The Government's Expenditure Plans 1980-81* (Cmnd 7746) (HMSO) November 1979 (Price 70p net).

### **Needs assessment study**

On 11 December 1979 HM Treasury published a report describing an interdepartmental study on the relative needs of the four countries of the UK for public expenditure on the services which were to have been devolved under the Scotland and Wales Acts. The study examined the *relative* needs of England, Scotland, Wales and Northern Ireland for the six main public expenditure

programmes which were to have been devolved and a general account of the methodology can be found in the *Economic Progress Report* No. 116 published by the Treasury on 12 December 1979. Separate indices of need for each country were drawn up on the basis of previous studies and departments' knowledge of the factors involved and their judgment as to the relative weight to be accorded to each factor. The study illustrates the scope for, but also the limitations of a quantitative approach to the allocation of public expenditure.

Copies of *Needs Assessment Study - Report* are available from the Treasury at £2.85. Cheques and postal orders for this amount (made payable to HM Treasury) should be sent to the Committee Section, HM Treasury, Parliament Street, London, SW1P 3AG.

The *Economic Progress Report* No. 116 is available from PDSD Distribution Unit, Central Office of Information (COI), Hercules Road, London, SE1 7D6.

### **Company finance and profitability**

The eleventh issue of the annual *Business Monitor* MA3-*Company finance* (available from government bookshops) will be published shortly. The *Business Monitor* provides summaries, in a standardised form, of the balance sheets, appropriation accounts and the sources and uses of company funds, both in total and by a number of broad industrial groups, for some 1,600 large listed and non-listed industrial and commercial companies operating mainly in the United Kingdom. It also contains tables of certain accounting ratios and size distributions. The figures in respect of 1977, and earlier years, published in this issue of the monitor will be the last of the results of the old analysis based on the accounts of a panel of large companies only. Work is already underway on analysing the accounts of a fully representative sample of GB industrial and commercial companies, that is, independent companies or company groups. The new series will start with results for 1977, to overlap with the old series, and publication is expected to begin in the second half of 1980. A description of the basis of the new series and its aims was given in an article 'Constructing a sampling frame of industrial and commercial companies' in the February 1979 issue (No. 44) of *Statistical News*.

The fourth in an annual series of articles 'Structure of company financing' appeared in the 15 February 1980 issue of *British business*, updating the statistics of the sources and uses of funds of industrial and commercial companies which were first presented in an article in *Economic Trends* September 1975 - 'Structure of company financing'. The recent article gives figures for large listed and unlisted companies in manufacturing, distribution and certain other services (1973-1977), large listed and unlisted companies in manufacturing

(1973–1977); and all industrial and commercial companies (1968–1978). Figures back to 1964 for the first two groups of companies were published in the *Economic Trends* September 1975 article. The figures for the first two groups of companies are based on the Department of Industry analysis of the published, consolidated accounts of companies as published in *Business Monitor MA3*; those for all industrial and commercial companies form part of the national accounts, published quarterly in *Financial Statistics* and annually in the *National Income and Expenditure Blue Book*.

Another article – ‘Companies’ rate of return on capital employed, 1960 to 1978’ – appeared in *Trade and Industry* on 28 September 1979. This was the fifth of an annual series of articles bringing together the latest information on various measures of the rate of return on capital employed by companies. The accounting rates of return given in the article include estimates at historic costs and replacement costs for all industrial and commercial companies and, separately, for manufacturing companies based on national accounts data. Replacement cost figures for industrial and commercial companies *excluding* their North Sea activities are also given.

Equivalent figures for large listed companies engaged mainly in manufacturing industry, in retailing and in wholesaling (separately), based on the Department of Industry analysis of company accounts, are given in tables 2 and 3 of the article. Separate estimates are given for six broad industry groups within manufacturing (table 2). Accounting ratios based on the book values recorded in companies’ own accounts are also given (table 4).

Inquiries concerning the *Business Monitor* and the articles should be addressed to:

Home Financial Statistics,  
Economics and Statistics Division 6A,  
Departments of Industry and Trade,  
Room 756 Sanctuary Buildings,  
16–20 Great Smith Street,  
London SW1P 3DB.  
Telephone: 01-215 3146.

### **The effects of taxes and benefits on household income, 1978**

The latest article in this series is published in the January issue of *Economic Trends*. The purpose of these articles is to show how the payment of taxes and the receipt of government benefits such as social services, cash benefits and consumer subsidies affect the observed distribution of income for different types of household. As in previous years the article gives an analysis of the resulting redistribution of income for the latest year for which data from the Family Expenditure Survey (FES) are available, in this case 1978.

A new feature of this year’s article is that it contains an analysis of the movements in redistribution for the years 1973 to 1978. For each of these years, it shows the shares of benefits received and taxes paid by different household groups and relates these changes to the distribution of original income. The main conclusion is that, despite appreciable changes in government expenditure and in fiscal policies, the percentage distribution of income after taxes and benefits amongst the quintile groups remained broadly the same during the period.

#### **Reference**

*Economic Trends*, No. 315, January 1980 (HMSO) (Price £5.40 net)

## **OVERSEAS FINANCE**

### **British Aid Statistics 1974–1978**

The 1979 edition of *British Aid Statistics* will be published this February. This volume contains 35 tables showing many different analyses of British aid flows to developing countries together with a fairly detailed explanatory text. Successive tables show the composition of aid in terms of grants and loans, commitments and expenditure, flows through multilateral organisations (e.g. United Nations agencies and the World Bank) and directly to the recipient countries, expenditure on financial and technical assistance, the purposes of financial aid, the distribution of each type of aid flow between different countries and economic sectors, the income levels of recipient countries, the fields of activity and study of, respectively, technical co-operation personnel serving overseas and students receiving specialist training outside their own country.

Most of the financial figures are on a UK public expenditure basis but there are also tables that show the main totals and components on the international ‘official development assistance’ basis. (The two bases are defined in the explanatory text.) Summary tables show the key figures on both bases.

The structure and content of this year’s edition are substantially the same as last year even though the number of tables has been reduced by a quarter. The reduction has been made by omitting a number of series felt to be of limited interest which enabled some tables to be dropped or amalgamated.

#### **Reference**

*British Aid Statistics 1974–1978* (HMSO) (forthcoming).

## **INTERNATIONAL**

### **European Economic Community consumer purchasing power parities**

As described in *Statistical News* 34.43 and 38.41, the United Kingdom took part in a community survey of retail prices in the Autumn of 1975. All member countries will again participate in further surveys during



1980, with the aim of providing average prices and costs of a very wide range of items of consumer expenditure. Suitably weighted, these will enable the purchasing power parities (PPPs) between EEC countries to be brought up to date. The results will also form part of the UK contribution to the United Nations' International Comparisons Project.

Since the 1975 exercise, PPPs have been provisionally updated annually using national price index data for each category of consumer expenditure. Special price surveys have been conducted in the intervening years in areas such as furniture and electrical goods where there are difficulties in drawing up a suitable list of products to be priced in every country. These have provided a partial check on the results obtained by extrapolation, and have assisted preparation for the 1980 exercise.

This year's benchmark survey will be conducted in several phases to spread the burden of price collection. Particular attention is being paid to the collection of comparable data on health and housing costs – neither of which was adequately covered in the 1975 survey. It is expected that the revised parities and other results will be published by the Statistical Office of the European Community in late 1981.

Further information may be obtained from:

Mr. A. G. Davies,  
Department of Employment,  
Caxton House,  
Tothill Street,  
London SW1.  
Telephone: 01-213 5985.

### **Taxes and social security contributions: International comparisons**

An article published in the December 1979 issue of *Economic Trends* gives a comparison of taxation in 18 countries within the Organisation for Economic Co-operation and Development (OECD) for the years 1970 to 1977. The tables are based mainly on national accounts returns supplied to OECD by member countries and show, for each country, total taxes and social security contributions as a percentage of gross national product; main categories of tax as percentages of gross national product and total taxation; and taxes on income and social security contributions paid by households as a percentage of total personal income. Also included are provisional figures for 1978 derived from *Revenue Statistics of OECD Member Countries 1965–1978*.

#### **References**

*Economic Trends*, No. 314, December 1979 (HMSO) (Price £2.10 net).  
*Revenue Statistics of OECD Member Countries 1965–1978* (1979) (OECD, Paris) (Price £7.60 net) available from HMSO.

## **THE ENVIRONMENT**

### **Environmental pollution**

A second issue of the *Digest of Environmental Pollution Statistics* has recently been published by HMSO for the Department of the Environment. This updates and extends information contained in the first edition published in 1978 (described in *Statistical News* No. 44, February 1979). As in Digest No. 1, statistics are grouped by type of environmental pollution: air, fresh-water, marine, and noise and statistics on waste disposal, collection etc. make up a further section. The air pollution section has been considerably extended to cover data on other pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons, aluminium, iron, zinc and lead, in addition to those on smoke, sulphur dioxide and radioactive substances. The waste section includes new data on the waste collection activities of local authorities in England and Wales, and solid radioactive waste disposals in Great Britain. In other sections it has been possible to include more detailed and up-to-date statistics on sewage sludge disposal to the marine environment, on concentrations of metals and organochlorine residues in fish and shellfish, on oil spills around UK coastal waters and on noise.

Copies are obtainable direct from HMSO. Queries about the publication should be addressed to:

Department of the Environment,  
Room N8/06,  
2 Marsham Street,  
London SW1P 3EB.

#### **Reference**

*Digest of Environmental Pollution Statistics* No. 2: 1979 (HMSO) (Price £5.25 net).

## **CONFERENCES AND MEETINGS**

### **Third International Conference for Public Utilities**

The third International Conference on Analysis Forecasting and Planning for Public Utilities is to be held at INSEAD (European Institute of Business Administration), June 25–June 29, 1980 Fontainebleau, France. This conference is intended for those interested in the electricity, gas, water, posts and telecommunication industries.

For more information contact either O. Tomasek, Bell Canada, 620 Belmont, Room 915, Montreal, Quebec, Canada, HRC 364 or N. Curien, PTT, Tour Maine Montparnasse, Paris, Codex 15.

## GOVERNMENT STATISTICAL SERVICE

### Government Statistical Service Senior Staff Conference

GSS Directors met for the 1979 Senior Staff Conference at the Civil Service College, Sunningdale Park on 9 and 10 November. The conference opened with a talk on the Government's strategy by Mr. John Hoskyns, Head of the Policy Unit in the Prime Minister's Office. This was followed by sessions on Priority Setting and Budget Planning, Management Matters, the Hidden Economy and the Census of Population.

## OTHER PUBLICATIONS

### Economic Trends Annual Supplement 1980 Edition

The 1980 edition of the *Economic Trends Annual Supplement* was published on 3 January and is available from HMSO at £2.80 net. This fifth issue of the Supplement brings together long runs of quarterly and annual data for the key series of economic statistics and is of special value to economists, planners, analysts and academic researchers. Some 300 series are included, linked to give continuous runs as far back as possible in the post-war period. Over half span 25 years or more. Certain series show figures for earlier years and quarters for the first time. There is one new table this year 'Measures of UK trade competitiveness'. The Supplement also contains concise notes and definitions and an index to more detailed sources.

#### Reference

*Economic Trends Annual Supplement No. 5, 1980 Edition* (HMSO) (Price £2.80 net).

### Annual Abstracts of Statistics, 1980 Edition

*Annual Abstracts of Statistics*, No. 116, 1980 Edition was published by Her Majesty's Stationery Office on 1 February price £11.90 net. This edition contains over 450 tables giving a selection of the most important statistics covering the economic, industrial and social life of the United Kingdom. Annual figures are given as far as they are available from 1968 to 1978 and in a few tables also for the early months of 1979.

Chapter V, Education has been recast entirely on a United Kingdom basis, some of the statistics previously published no longer appear, but some other aspects of education statistics have been included. These new tables have been included in the section on Research and Development and in Chapter XVIII two new tables of indices can now be combined with similar indices for other member countries of the European Economic Community to provide an overall indication of price trends within the nine.

The following amendments should be made in this edition:

### Table 5.4 Numbers of public sector and assisted special schools. Full time pupils and teachers.

*Educationally sub-normal and mentally handicapped*

1975 delete 184,044 insert 84,044

1976 delete 186,338 insert 86,338

### Table 6.2 (continued) Employees in Employment

*Footnotes*

Page 150 delete second (2) insert (7)

### Table 7.18 Land holdings by the Ministry of Defence

*England Land Leasehold*

1976 delete 19.9 insert 19.8

1977 delete 19.8 insert 19.9

### Table 8.63 Construction: value of new orders obtained by contractors

*New work: total*

1971 delete 4,576 insert 4,276

*Other new work: total*

1971 delete 3,820 insert 2,820

### Table 9.3 Agriculture – land use

*Rough grazings: Common (estimated)*

1978 delete 1,209 insert 1,206

### Table 9.12 Sales for food of agricultural produce and livestock

*Potatoes*

1978 delete 4,806 insert 4,800

### Table 10.2 Passenger transport in Great Britain: estimated passenger kilometres

*Road: Private transport*

1977 delete 340.0 insert 374.0

### Table 10.81 UK inward passenger movement by sea and air

*European continent and Mediterranean Sea area:*

*France*

1978 delete 1,539 insert 1,540

### Table 16.8 Consolidated Fund revenue

*Taxation Special charge*

1973/74 delete 9.0 insert 0.9

### Table 16.33 Expenditure and income of local authorities: summary

*United Kingdom Total expenditure: Other*

1977/78 delete 20,894.4 insert 20,924.4

### Table 17.61 Acquisitions and mergers of companies

*All companies total*

1977 delete 523 insert 521

#### Reference

*Annual Abstract of Statistics*, No. 116 1980 Edition (HMSO) (Price £11.90 net).

### **Election expenses (May 1979)**

The return of the expenses of each candidate at the general election of May, 1979, contains the number of votes polled by each candidate, particulars of each candidate, the number of polling districts and stations, the number of electors, the number of postal voters and the number of rejected ballot papers. Information is given for each constituency of the United Kingdom.

#### **Reference**

*Election Expenses*. A House of Commons Paper No. 374. (HMSO, 1980) (Price £5.75 net).

Additional tables, not included in *Election Expenses*, giving further details of rejected ballot papers, by reason for rejection, for each constituency are obtainable on request from:

Home Office,  
Room 1813,  
Tolworth Tower,  
Surbiton,  
Surrey, KT6 7DS.

## **LATE ITEMS**

### **Employment in the public and private sectors 1961–78**

Mid-year estimates of employment in the United Kingdom analysed by sector and broad industry group for each year 1961 to 1978 were presented in an article in the November 1979 issue of *Economic Trends*. Although data for 1972 to 1977 had been published in *Economic Trends*, January 1979, this latest article is the first to provide a longer perspective to the analysis of employment by sector and industry since *Economic Trends*, February 1976.

The article uses revised estimates for the self-employed for 1961–1970. Other innovations are the inclusion of (a) time-series of public sector employment by major categories, and (b) approximate estimates of the profile of employment (male, female, full-time, part-time) and how it has changed – both in the public sector, and in major industry groups. An assessment is also given of the movements in major components of public sector employment and in total private sector employment between mid-1978 and mid-1979.

Both the public and private sectors have shared in the large increase in employment in services during the 1960's and 1970's whereas employment in production industries (predominantly private sector) has fallen. This reflects a decline in the importance of goods-producing industries relative to services – not unique to the United Kingdom – and the increased availability of female labour.

#### **Reference**

Employment in the public and private sectors, 1961–78 by Matt Semple, Central Statistical Office, *Economic Trends*, No. 313, November 1979, (HMSO) (Price £2.10 net).

### **International comparisons of labour statistics**

International comparisons are becoming of increasing interest in labour statistics. The main industrial economies have become more interdependent and comparisons of their experience in, for example, unemployment, earnings and prices can be helpful in the analysis of economic trends.

An article, in the December issue of the *Employment Gazette* shows some of the main comparisons of labour statistics which can be drawn from various international publications. In future months it is planned to bring up to date some of the tables contained in the article, namely those on employment, wages and consumer prices, in the Statistical Series section of *Employment Gazette*. Various other statistics will be included from time to time in future articles.

#### **Reference**

*Employment Gazette*, December 1979, Pages 1243–1248, (HMSO) (Price £1.35 net).

### **Nurses and midwives – pay**

Report No. 3 of the Standing Commission on Pay Comparability under the Chairmanship of Professor H. A. Clegg, published in January 1980, examined the pay of Nurses and Midwives in the National Health Service. Appendix 6 contains results of a survey of Nursing and Midwifery staff in Great Britain in July 1979, which analyses numbers of staff, monthly contracted hours and the make-up and distribution of monthly pay, principally by grade, sex and whether staff were full- or part-time. The results were prepared by the Office of Manpower Economics (the secretariat to the Standing Commission) from information provided by the Health Departments from their regular pay enquiries. Chapter 4 and Appendices 3 and 7 give details of a comparability study carried out for the Standing Commission by a firm of management consultants, which used a form of factor analysis (developed over the last 30 years and known as the 'Guide Chart Profile Method') to determine the 'size' of certain key nursing and midwifery jobs, and also reported typical earnings levels for jobs of similar size throughout a wide range of industrial and commercial organisations.

Earnings for each key nursing and midwifery grade, based on the survey, were then compared in Chapter 5 (Table 2) with typical earnings in jobs of comparable size, based on the consultants' study, and adjusted for certain differences in pay allowances, fringe benefits and conditions of employment (including pensions, examined in Appendix 8).

The Standing Commission's final recommendations are summarised in Chapter 5 (Table 3) which includes indices comparing them with salary scales derived by updating those recommended by the Halsbury Committee (Report of the Committee of Inquiry into the Pay

and Related Conditions of Service of Nurses and Midwives; Chairman, Lord Halsbury; September 1974) in line with movements in non-manual earnings generally.

**Reference**

*Standing Commission on Pay Comparability, Report No. 3: Nurses and Midwives* (Cmnd. 7795) (HMSO) January 1980 (Price £2.00 net).

**Review of Government statistical services  
by Sir Derek Rayner**

The Prime Minister has asked Sir Derek Rayner to oversee and co-ordinate a general review of Government statistical services. Under his guidance, Departments will assess their statistical activities to see whether all the work is still needed and the costs are justified, whether the work could be undertaken more efficiently, and generally how to improve value for money.

Sir Derek Rayner will also report on statistical services which meet wider needs than one department, including the work of the Central Statistical Office. He will consider the best means for the continuing scrutiny of the cost of and need for individual services.

Work starts in February and the Departmental exercises will be short and sharp. The aim is to prepare a final report on the results and on major points for decision in the late summer. Much of the review will be done more quickly.

Anyone wishing to pass suggestions to the review team can do so through Mr. I. B. Beesley, Chief Statistician in the Central Statistical Office or Mr. R. H. Wilson, Assistant Secretary in the FP Group of the Civil Service Department, who are working with Sir Derek Rayner on this exercise.

**Trade and Industry/British business**

As from 25 January 1980 the weekly *Trade and Industry* has been renamed *British business*.

No change in present editorial policy or coverage is intended, and all regular features previously appearing in *Trade and Industry* will continue in *British business*.

**Reference**

*British business*, weekly (HMSO) (Price 50p net).

**Recently available statistical series and publications –  
Department of Education for Northern Ireland**

*Northern Ireland Education Statistics – Bulletin No. 27*  
Schools, pupils, teachers, scholarships and awards.  
Figures as at January 1978.

**Further amendments to Social Trends 10**

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Footnotes

**Renumber** footnote '1' to read '4'; '2' to read '5';  
'3' to read '1'; '4' to read '2'; and '5' to read '3'

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England and Wales chart

**Transpose** the labels 'Borstal training' and 'Detention centres'

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The index to *Statistical News* covers the last nine issues. Page numbers are prefixed by the issue number, e.g. 40.30 signifies number 40, page 30.

Generally speaking articles relating to the United Kingdom, Great Britain, England and Wales or covering several geographical groups are not indexed under these groups, but topics with a significant regional interest are indicated, e.g. regional earnings. Articles and notes dealing particularly with Scottish statistics are indexed under 'Scotland' as well as the topic, e.g. 'Scotland, population projections', and similarly for Wales and Northern Ireland.

The following conventions have been observed in printing this index: references to items appearing in articles are shown by (A); italics are used for the titles of published books or papers.

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