



## **Cambridge Centre for Business Research SME Dataset 1997 (Second Panel)**



## **Survey Design, Response Bias and Sample Characteristics in the 1997 CBR SME Survey**

Anna Bullock and Alan Hughes

### **The Sampling Framework and Sample Design**

The sampling framework used in constructing the survey database was the Dun & Bradstreet UK Marketing Database. This is the same sample frame used in previous CBR Surveys (Bullock, Duncan and Wood (1995)). An advantage of using the D&B database is that, as well as providing the address and telephone number and the names and functions of executives, it also gives information about legal status, employment, activity and other business information, which is extremely helpful in assessing sample response bias in terms of these characteristics.

The objective of the survey design was to achieve a sample of 2500 independent small and medium sized firms employing less than 500 workers in England, Wales and Scotland. The sample was to be split in numbers between manufacturing and the business services sectors, with 1500 in manufacturing and 1000 in the business services sector. The higher numbers in manufacturing reflected a desire to achieve useable numbers of firms in hi-tech as well as conventional sectors.

Within both the manufacturing and the business services sector the survey sample was weighted towards the medium sized and larger SME firms. This was for two reasons: first we have found in our previous surveys that larger firms are more reluctant to fill in questionnaires; secondly the overwhelming proportion of micro and small firms in the economy - in 1996 81.6 % of firms in the manufacturing and business sectors employed fewer than 10 people and 96.2 % employed less than 50 employees (DTI SME Statistics for the United Kingdom, 1996) - means that, without this sampling bias, the CBR survey would not otherwise include useable numbers of respondents from the medium and larger firms.

The sample design was based on a size stratified approach. We sought to obtain a manufacturing sample split in the ratio 60:30:10 across the three employment bands 1-49, 50-199 and 200-499, each of which was available in the D & B sampling framework. For business services we sought a 75:20:5 split. These ratios reflected our desire stated earlier to achieve greater weighting than the business population in the larger size SME categories, but also reflects the fact that within business services the D & B sampling frame like the business population as a whole contains relatively few larger SMEs compared to manufacturing.

The CBR survey was conducted from June through October 1997. The survey sample of 12640 was split into two groups. The first one with 8000 firms was telephoned to check on eligibility in terms of size, independence and sector. Their consent to participate was also sought before a questionnaire was sent. The second group with 4640 firms were sent the questionnaire blind. This split reflected a desire to consider the cost effectiveness of different approaches and will enable us to conduct an analysis of the impact of telephoning on item and unit response rates for use in further survey designs. For both groups, if the questionnaire had not been returned within two weeks a prompting letter was sent. This was

followed up by another letter and a replacement copy of the questionnaire after a further two weeks.<sup>1</sup>

The questionnaire covered five topics: general characteristics of the business; workforce and training; commercial activity and competitive situation; innovation; factors affecting expansion and efficiency; and acquisition activity, capital expenditure and finance. There were 50 questions that resulted in 414 different variables for each firm.

Table A1 shows the survey responses. From the telephone sample 2570 firms were excluded, 1447 for not being eligible and 1123 for refusing to take part. Out of the 5430 eligible firms agreeing to receive a questionnaire 1618 actually returned useable questionnaires, a response rate of 29.8%. From the blind sample, 161 firms were excluded for not being eligible, on the basis of information in their returns. This left 902 useable questionnaires, a response rate of 20.1%. It can be argued that the response rate shown for the telephone sample is exaggerated by excluding the firms that refused to take part at the telephone stage. If allowance is made for firms refusing to take part the response rate still remains higher compared with the blind group at 24.7%. On the other hand, if we assume that the same proportion of firms would have been excluded for not being eligible from the blind group, as were in the telephone sample, then we get a response rate of 23.4% for the blind group.<sup>2</sup>

---

<sup>1</sup>A telephone check was made on all firms with 200 or more employees that had responded to neither the mailed questionnaire nor the subsequent prompts. They were asked to answer 7 questions about employment and training; innovation; and finance. 263 firms were phoned resulting in 241 responses. The results are not analysed in this report.

<sup>2</sup> The implications of these differences in response rates for different systems of surveying are currently the subject of separate analysis.

**Table A1**  
**Survey responses**

|                                    |       |               |        |
|------------------------------------|-------|---------------|--------|
| Total sampling frame               | 12640 |               |        |
| Firms that were telephoned         | 8000  |               |        |
| excluded for being ineligible;     |       |               |        |
| ceased trading                     | 127   |               |        |
| more than 499 employees            | 57    |               |        |
| not independent                    | 150   |               |        |
| other                              | 4     |               |        |
| unable to contact*                 | 588   |               |        |
| address & telephone number unknown | 521   |               |        |
|                                    |       |               |        |
| total ineligible                   | 1447  |               |        |
| refused to take part               | 1123  |               |        |
|                                    |       |               |        |
| ineligible or refused to take part | 2570  |               |        |
| surveyed firms (8000 - 2570)       | 5430  |               |        |
| useable questionnaires returned**  | 1618  | response rate | 29.80% |
| Firms not telephoned               | 4640  |               |        |
| excluded for being ineligible      |       |               |        |
| ceased trading                     | 37    |               |        |
| not independent                    | 28    |               |        |
| other                              | 2     |               |        |
| address unknown                    | 94    |               |        |
|                                    |       |               |        |
| total ineligible                   | 161   |               |        |
|                                    |       |               |        |
| surveyed firms (4640 - 161)        | 4479  |               |        |
| useable questionnaires returned    | 902   | response rate | 20.14% |
| Total achieved sample              | 2520  | response rate | 25.43% |

at least 3 attempts were made to contact each firm.

\*\* 263 firms, which did not return useable questionnaires, all of which had >199 employees were subsequently telephoned and asked to respond to a brief questionnaire over the phone, resulting in 241 responses. The results for these firms are not analysed in this report.

### **The Comparative Employment Size, Age Characteristics and Legal Form of the Sample**

Table A2 shows the extent to which the proportion of firms in the achieved sample, in the different size classes, matched the targets sought. The table reveals that the target business services proportions were broadly achieved. In manufacturing however, the larger SMEs returning questionnaires fell below the targets sought.

**Table A2**  
**Sample size**

| Employment size | Target sample      |                      | Respondents by sector |                      |                      |
|-----------------|--------------------|----------------------|-----------------------|----------------------|----------------------|
|                 | Manu-<br>facturing | Business<br>Services | Manufacturing         | Business<br>Services | Respondents<br>Total |
|                 | %                  | %                    | %                     | %                    | %                    |
| 1 - 49          | 60                 | 75                   | 72                    | 78                   | 74                   |
| 50 - 199        | 30                 | 20                   | 24                    | 19                   | 22                   |
| 200 - 499       | 10                 | 5                    | 4                     | 3                    | 4                    |

Table A3 compares the Dun & Bradstreet total sample base, the firms on the DTI SME manufacturing and business services Inter-Departmental Business Register (IDBR) and the CBR survey respondents by employment size. The IDBR holds records of all businesses registered for VAT and all businesses operating a PAYE scheme. We can see that the D&B database and the IDBR data are very similar. The CBR survey respondents include a larger proportion of firms in the 50 - 199 size band than the other two. This can be explained by the fact that we stratified the sample to get more medium and larger SMEs, as opposed to small and micro firms for the reasons set out earlier.

**Table A3**  
**Employment size distribution**

| Employment size | Manufacturing & Business Services Firms |      |        |      |      |
|-----------------|---|------|--------|------|------|
|                 | D & B                                   | IDBR | CBR    |      | no.  |
|                 | Database, April 1997                    |      | Survey | 1997 |      |
|                 | %                                       | %    | %      |      |      |
| 1-49            | 92.3                                    | 96.2 | 74.2   |      | 1844 |
| 50-199          | 6.7                                     | 3.1  | 21.8   |      | 542  |
| 200-499         | 1.0                                     | 0.7  | 3.9    |      | 98   |
| total           | 100                                     | 100  | 100    |      | 2484 |
| missing         |   |      |        |      | 36   |

Source: CBR Survey; Dun & Bradstreet marketing database, April 1997;  
SME statistics for the UK, 1996, DTI

Table A4 shows the breakdown of the sample by legal form. The VAT-based data is taken from Business Monitor PA 1003, showing all VAT registered enterprises. From this we have abstracted all data relating to manufacturing, post & telecommunications, property & business services and public administration & other services. The proportion of sole proprietorships is smaller in the CBR survey response than in the VAT-based data. This is a reflection of the properties of the D & B database, which, as the table shows, understates the proportion of sole proprietorships to the same degree as our sample data.

**Table A4**  
**The distribution of enterprises by legal form of organisation**

| Manufacturing & Business Services |                |                    |                  |
|-----------------------------------|----------------|--------------------|------------------|
| Legal form                        | VAT Registered | D & B              | CBR              |
|                                   | 1996<br>%      | Database 1997<br>% | Survey 1997<br>% |
| Sole Proprietorships              | 34.6           | 14.2               | 15.2             |
| Partnerships                      | 17.2           | 12.2               | 13.8             |
| Companies                         | 48.2           | 73.7               | 71.0             |

Source: CBR Survey, 1997; Business Monitor PA 1003 1996, Tables 3a-3c; Dun & Bradstreet 1997 (Survey Sample)

In Table A5 we compare the age of the CBR survey firms with the Company Register as a whole. The Company Register contains a much larger proportion of newer firms. This can be explained by the fact that it may take time for new firms to get onto D & B's database, and that, as can be seen by comparing business services firms with manufacturing firms, business services firms tend to be younger firms and the CBR survey sample consists of more manufacturing firms.

**Table A5**  
**Date of formation**

| Date of registration | CBR Survey       |          |      | Company Register        |
|----------------------|------------------|----------|------|-------------------------|
|                      | Respondents 1997 |          |      | as a whole, - 31.3.1997 |
|                      | Manufacturing    | Services | All  | All companies*          |
|                      | %                | %        | %    | %                       |
| <1900                | 4.4              | 2.4      | 3.5  | 0.2                     |
| 1900<1930            | 3.5              | 2.4      | 3.1  | 1.2                     |
| 1930<1950            | 5.7              | 2.8      | 4.5  | 2.4                     |
| 1950<1975            | 21.2             | 11.7     | 17.3 | 11.7                    |
| 1975<1986            | 30.6             | 23.6     | 27.7 | 16.7                    |
| >=1986               | 34.6             | 57.2     | 43.9 | 67.8                    |

Source: CBR Survey 1997, DTI Companies in 1997, Table A4

\* It is not possible to disaggregate the published Company Register Age data into separate manufacturing and business survey sectors.

### **Response Bias by Size, Age, Profitability and Legal Status**

To pursue the pattern of response bias more formally we conducted an analysis of our respondents which systematically compared response rates in terms of age employment, turnover, pre-tax profit and legal status. To do this we made use of the data available on these fields in the original D & B database for different categories of firms in the overall sampling frame. We carried out this analysis for the telephone and blind samples separately, and for manufacturing and business services separately.

Table A6 sets out the categories of firms in the response bias analysis. The telephone sample is split between responding by post, those responding to the abbreviated telephone/fax questionnaire, those surveyed by post without a response and those firms refusing at the

telephone stage. Only the first and third of these categories apply to the blind sample. The fields across which non-response bias is analysed are shown in Table A7.

**Table A6**  
**Groups for non-response bias tests**

| Telephone sample                  | Total        |      | Manufacturing |      | Business Services |      |
|-----------------------------------|--------------|------|---------------|------|-------------------|------|
|                                   | No. of Firms | %    | No. of Firms  | %    | No. of Firms      | %    |
| Group 1: Postal Response          | 1618         | 24.7 | 863           | 23.1 | 755               | 26.8 |
| Group 2: Telephone/ fax response* | 241          | 3.7  | 201           | 5.4  | 40                | 1.4  |
| Group 3: No response              | 3571         | 54.5 | 1954          | 52.3 | 1617              | 57.4 |
| Group 4: Refusals                 | 1123         | 17.1 | 716           | 19.2 | 407               | 14.4 |
| Total                             | 6553         | 100  | 3734          | 100  | 2819              | 100  |

  

| Blind sample             | Total        |      | Manufacturing |      | Business Services |      |
|--------------------------|--------------|------|---------------|------|-------------------|------|
|                          | No. of Firms | %    | No. of Firms  | %    | No. of Firms      | %    |
| Group 1: Postal Response | 902          | 20.1 | 611           | 19.0 | 291               | 23.0 |
| Group 3: No response     | 3577         | 79.9 | 2602          | 81.0 | 975               | 77.0 |
| Total                    | 4479         | 100  | 3213          | 100  | 1266              | 100  |

\* The results for these firms, which completed an abbreviated questionnaire, and all of which employed 200 or more workers, are not included in the analysis in this book.

**Table A7**  
**Business characteristics for non-response bias tests**

| Characteristic       | Categories   |
|----------------------|--|
| Business Activity    | Manufacturing; Business Services   |
| Age                  | Older; Younger   |
| Employment size      | 1-49; 50-199; 200-499  |
| Turnover size (£000) | $T < 100$ ; $100 \leq T < 1000$ ; $1000 \leq T < 10000$ ; $10000 \leq T$ |
| Profit margin (%)    | lower 50th percentile; upper 50th percentile                             |
| Legal Status         | Proprietorship; Company; Partnership; Other                              |

Our approach to the analysis of unit non-response bias is based on a combination of parametric and nonparametric tests. Our parametric test is the One-Way Analysis of Variance (ANOVA) Bonferroni test. This is a test based on a multiple comparison procedure across groups to determine if there are differences in the mean characteristics of the firms in those groups (e.g. are those refusing to take part different from those not returning questionnaires having agreed to take part). This test corrects for a potential bias which might arise if a sequence of pair wise comparisons was made between each of the possible pairs of groups in the multiple comparison (e.g. groups 1 v 2, 1 v 3, 1 v 4 etc. in Table A6). The Bonferroni test requires that (1) each of the groups is an independent random sample from a normal population, and (2) that in the population the variances within the groups are the same. Since we suspect that these assumptions may not hold we supplement this test with the nonparametric Kruskal-Wallis test. This test is an extension of the two-sample Mann-Whitney test based on ranks to a multiple comparison framework. If, and only if, the Kruskal-Wallis test reveals a difference in means across the multiple groups then a simple extension to the analysis permits a series of tests across each of the possible pairs of groups (e.g. Conover (1980) pp229-237). The Kruskal-Wallis one-way analysis of variance by ranks is an extremely useful test for deciding whether k independent samples are from different populations. The Kruskal-Wallis technique tests the null hypothesis that the k samples come

from the same population or from identical populations with the same medians. Under the null hypothesis, the test assumes only that the variables under study have the same underlying continuous distribution requiring at least ordinal measurement of those variables (Siegel and Castellan (1988) pp213 ff.).

Tables A8 to A12 show the results of this approach. To simplify the presentation we report the results of three way analysis excluding the telephone/fax respondents, whose results are not used in the analysis reported elsewhere in this book.<sup>3</sup>

**Table A8**  
**One-Way Anova (Bonferroni) test and pairwise Kruskal-Wallis test for firm age categories**

|         | Manufacturing |         |         |         | Business Services |         |         |         |
|---------|---------------|---------|---------|---------|-------------------|---------|---------|---------|
|         | Mean Value    | Group 1 | Group 3 | Group 4 | Mean Value        | Group 1 | Group 3 | Group 4 |
| Group 1 | 1.3278        |         |         |         | Group 1           | 1.6037  |         |         |
| Group 3 | 1.3502        |         |         | *       | Group 3           | 1.6074  |         |         |
| Group 4 | 1.2955        |         |         |         | Group 4           | 1.6000  |         |         |

\* : indicates 5% significant differences (Bonferroni test) which are shown in the upper triangle

**Table A9**  
**One-Way Anova (Bonferroni) test and pairwise Kruskal-Wallis test for employment size categories**

|         | Manufacturing |         |         |         | Business Services |         |         |         |
|---------|---------------|---------|---------|---------|-------------------|---------|---------|---------|
|         | Mean Value    | Group 1 | Group 3 | Group 4 | Mean Value        | Group 1 | Group 3 | Group 4 |
| Group 1 | 1.3975        |         |         | *†      | Group 1           | 1.3060  | *       | *†      |
| Group 3 | 1.4023        |         |         | *†      | Group 3           | 1.2449  |         |         |
| Group 4 | 1.5377        |         |         |         | Group 4           | 1.1941  |         |         |

\* : indicates 5% significant differences (Bonferroni test) which are shown in the upper triangle

† : indicates 5% significant differences (Kruskal-Wallis test) which are shown in the upper triangle

**Table A10**  
**One-Way Anova (Bonferroni) test and pairwise Kruskal-Wallis test for turnover size categories**

|         | Manufacturing |         |         |         | Business Services |         |         |         |
|---------|---------------|---------|---------|---------|-------------------|---------|---------|---------|
|         | Mean Value    | Group 1 | Group 3 | Group 4 | Mean Value        | Group 1 | Group 3 | Group 4 |
| Group 1 | 2.6488        |         |         | *†      | Group 1           | 2.3605  |         |         |
| Group 3 | 2.6548        |         |         | *†      | Group 3           | 2.2575  |         |         |
| Group 4 | 2.8723        |         |         |         | Group 4           | 2.1583  |         |         |

\* : indicates 5% significant differences (Bonferroni test) which are shown in the upper triangle

† : indicates 5% significant differences (Kruskal-Wallis test) which are shown in the upper triangle

<sup>3</sup> We only present tables with significant results.

**Table A11**  
**One-Way Anova (Bonferroni) test and pairwise Kruskal-Wallis test for legal form categories**

|         | Manufacturing |         |         | Business Services |            |         |         |         |
|---------|---------------|---------|---------|-------------------|------------|---------|---------|---------|
|         | Mean Value    | Group 1 | Group 3 | Group 4           | Mean Value | Group 1 | Group 3 | Group 4 |
| Group 1 | 2.0174        |         |         |                   | Group 1    | 1.9669  |         |         |
| Group 3 | 2.0226        |         |         |                   | Group 3    | 1.9677  |         | *       |
| Group 4 | 2.0056        |         |         |                   | Group 4    | 1.8765  |         |         |

\* : indicates 5% significant differences (Bonferroni test) which are shown in the upper triangle

**Table A12**  
**Mann-Whitney test for age, employment size, turnover profit margin and legal form in the blind sample**

| Category        | Manufacturing | Business Services |
|-----------------|---------------|-------------------|
| Age             |               |                   |
| Employment size | *             |                   |
| Turnover        | *             |                   |
| Profit margin   |               |                   |
| Legal form      |               |                   |

\* : indicates 5% significant differences (Mann-Whitney test)

The results of the analysis are fairly straightforward to summarise. If we begin with the telephone sample in manufacturing, a clear pattern emerges in which those refusing to participate at the telephone stage (group 4) are revealed as older than those not responding (group 3) and larger in terms of both employment and turnover than those responding and those not responding. It is primarily the refusal of these larger firms to take part at the telephone screening stage which led to the lower than target response rates in the larger size groups, shown in Table A2 above. There was no other significant response rate difference between respondents and non-respondents.

The analysis of the telephone sample in business services reveals fewer differences although in this case the smaller firms in terms of employment were shown to be less likely to agree to take part, although the differences in means across the groups was smaller than in the case of manufacturing so that the target ratios in Table A2 were broadly achieved. No other differences were significant on both the Bonferroni and Kruskal-Wallis tests.

For the blind sample, where only a two group comparison is involved we used the nonparametric Mann-Whitney test, which revealed no response bias in business services, and the now usual tendency for large manufacturing firms to be less likely to respond.

Overall we conclude that there is a size based response bias in our manufacturing sample, but that there is no systematic evidence of bias in terms of age, profit margin or legal status in which our achieved sample reflects the characteristics of the D & B sampling frame.<sup>4</sup>

<sup>4</sup> It should be noted that not all of the fields we have analysed are fully reported in the D & D database. Strictly speaking therefore our analysis relates to all firms reporting the relevant data in the D & B sampling frame. Of the 10791 eligible firms approached in the post survey, 10308 reported age, 10791 reported employment, 5454 reported turnover, 3222 reported profit margin and 7802 reported legal form.

## Spatial Patterns of Response

Our approach to spatial response patterns is based on a comparison of the achieved sample with the VAT business register.

Table A13, compares the geographical distribution of the CBR survey sample with that of VAT registered enterprises in the manufacturing and business services sectors. The CBR survey sample is very similar in geographic spread to the VAT registered firms, and mirrors the differences between the manufacturing and business services sectors in that population.

**Table A13**  
**The regional distribution of VAT registered and survey enterprises**

| Region                 | Manufacturing       |             | Business Services   |             |
|------------------------|---------------------|-------------|---------------------|-------------|
|                        | VAT registered<br>% | Survey<br>% | VAT registered<br>% | Survey<br>% |
| South East             | 34.6                | 31.8        | 49.8                | 45.8        |
| East Anglia            | 3.9                 | 5.3         | 3.7                 | 5.3         |
| South West             | 8.3                 | 6.9         | 7.9                 | 8.5         |
| West Midlands          | 12.5                | 11.7        | 7.2                 | 5.7         |
| East Midlands          | 9.3                 | 8.7         | 5.5                 | 5.4         |
| Yorkshire & Humberside | 8.5                 | 10.0        | 5.7                 | 5.5         |
| North West             | 10.3                | 12.9        | 8.0                 | 8.8         |
| North                  | 3.2                 | 4.5         | 2.8                 | 4.1         |
| Wales                  | 3.6                 | 3.5         | 2.9                 | 3.5         |
| Scotland               | 5.7                 | 4.7         | 6.4                 | 7.3         |

Source: Business Monitor PA 1003 1996, Table 3E; CBR Survey 1997

## **Small and Medium Size Business Survey**

This questionnaire is designed for a wide variety of firms. Please answer as many questions as you can, skip the others.

All information will be kept confidential and anonymous, and will be used only for academic research.

**University of Cambridge**



A6. Please answer each of these questions about your firm's Chief Executive/Senior Partner/Proprietor:

|   |   |                |
|---|---|----------------|
| Years with the business? .....                          | _____ yrs   | <b>CSP41</b>   |
| Years as Chief Executive/Senior Partner/Proprietor? ... | _____ yrs   | <b>CSP42</b>   |
| Age? .....  | _____ yrs   | <b>CSPAGE4</b> |
| Gender? .....   | <input type="checkbox"/> 1 Male <input type="checkbox"/> 2 Female | <b>CSPGEN4</b> |

A7. Does your firm's Chief Executive/Senior Partner/Proprietor:

*Please circle one answer in each row.*

|  |          |          |                |
|--|----------|----------|----------------|
|  | <b>1</b> | <b>0</b> |                |
| hold a Science or Engineering degree? .....                      | Yes      | No       | <b>CSPDEG4</b> |
| hold another type of degree or professional qualification? ..... | Yes      | No       | <b>CSPROF4</b> |

A8. Is the Chief Executive/Senior Partner/Proprietor:

|                                  |     |    |              |
|----------------------------------|-----|----|--------------|
| a founder of the business? ..... | Yes | No | <b>CSP44</b> |
|----------------------------------|-----|----|--------------|

**IF NO:**

|                                     |     |    |              |
|-------------------------------------|-----|----|--------------|
| a relative of the founder(s)? ..... | Yes | No | <b>CSP45</b> |
|-------------------------------------|-----|----|--------------|

**IF YOUR FIRM IS A SOLE PROPRIETORSHIP, PLEASE GO TO SECTION B**

A9. If your business is either a company or a partnership please answer these questions about the current Board of Directors/Partners **excluding** the Chief Executive/Senior Partner :

|  |       |                |
|--|-------|----------------|
| Total number of Directors/Partners .....   | _____ | <b>TOTDP41</b> |
| Number of Directors/Partners with a science or engineering degree .....          | _____ | <b>TOTDP42</b> |
| Number of Directors/Partners with other degree/ professional qualification ..... | _____ | <b>TOTDP43</b> |

**IF YOUR FIRM IS A PARTNERSHIP, PLEASE GO TO SECTION B**

A10. If your business is a company what percentage of its ordinary shares is owned by:

|                                       |         |                |
|---------------------------------------|---------|----------------|
| The Chief Executive? .....            | _____ % | <b>SHARE41</b> |
| The Whole Board of Directors? .....   | _____ % | <b>SHARE42</b> |
| The largest single shareholder? ..... | _____ % | <b>SHARE43</b> |

A11. What type of shareholder is the largest single shareholder? *Please tick one box.*

|                                |                          |             |
|--------------------------------|--------------------------|-------------|
| The Chief Executive .....      | <input type="checkbox"/> | <b>1</b>    |
| Another Director .....         | <input type="checkbox"/> | <b>4</b>    |
| A non-board individual .....   | <input type="checkbox"/> | <b>5</b>    |
| A non-financial business ..... | <input type="checkbox"/> | <b>2</b>    |
| A financial business .....     | <input type="checkbox"/> | <b>3</b>    |
| Other (please specify) .....   | <input type="checkbox"/> | <b>6,10</b> |

**SECTION B WORKFORCE AND TRAINING**

IN THIS SECTION WE WOULD LIKE TO EXPLORE SOME FEATURES OF YOUR LABOUR FORCE, ITS SKILL CHARACTERISTICS AND THE AVAILABILITY OF LABOUR FORCE TRAINING FOR YOUR BUSINESS.

B1. What numbers of your workforce are currently employed in the occupation groups listed below? Could you please also indicate if you are currently finding it difficult to recruit suitable employees in a particular occupation group? *Please enter number of full/part time employees and circle appropriate recruiting answer in each row.*

|  | Total    | Employees |           | Current difficulty in recruiting |         |          |
|--|----------|-----------|-----------|----------------------------------|---------|----------|
|  |          | Full-Time | Part-Time | 1<br>Yes                         | 0<br>No |          |
| Semi-skilled & unskilled manual .....                  | TOTEMP41 | FULL41    | PART41    | 1<br>Yes                         | 0<br>No | RECDIF41 |
| Skilled manual .....                                   | TOTEMP42 | FULL42    | PART42    | Yes                              | No      | RECDIF42 |
| Clerical & administrative .....                        | TOTEMP43 | FULL43    | PART43    | Yes                              | No      | RECDIF43 |
| Technicians & lower professionals.....                 | TOTEMP44 | FULL44    | PART44    | Yes                              | No      | RECDIF44 |
| Technologists, scientists & higher professionals ..... | TOTEMP45 | FULL45    | PART45    | Yes                              | No      | RECDIF45 |
| Managerial.....  | TOTEMP46 | FULL46    | PART46    | Yes                              | No      | RECDIF46 |

B2. In the last year what, approximately, was your percentage rate of labour turnover in each occupation group? *Please circle appropriate answer in each row.*

|  | 0  | 1      | 2       | 3       | 4        |       |
|--|----|--------|---------|---------|----------|-------|
| Semi-skilled & unskilled manual .....                  | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB41 |
| Skilled manual .....                                   | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB42 |
| Clerical & administrative .....                        | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB43 |
| Technicians & lower professionals .....                | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB44 |
| Technologists, scientists & higher professionals ..... | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB45 |
| Managerial.....  | 0% | 1 - 10 | 11 - 30 | 30 - 50 | Over 50% | LAB46 |

B3. Is formal training provided for any occupational groups? .....

| 1   | 0  |        |
|-----|----|--------|
| Yes | No | TRAIN4 |

**IF NO, PLEASE GO TO B6**

**IF YES,** please indicate for the skill group(s) trained the providers of the training. *Please circle the answers to both questions in each row.*

|   | Provided by own staff |         |       | Provided by outside trainers |         |       |
|---|-----------------------|---------|-------|------------------------------|---------|-------|
|   | 1<br>Yes              | 0<br>No |       | 1<br>Yes                     | 0<br>No |       |
| Semi-skilled & unskilled manual.....                  | Yes                   | No      | OWN41 | Yes                          | No      | OUT41 |
| Skilled manual.....                                   | Yes                   | No      | OWN42 | Yes                          | No      | OUT42 |
| Clerical & administrative.....                        | Yes                   | No      | OWN43 | Yes                          | No      | OUT43 |
| Technicians & lower professionals.....                | Yes                   | No      | OWN44 | Yes                          | No      | OUT44 |
| Technologists, scientists & higher professionals..... | Yes                   | No      | OWN45 | Yes                          | No      | OUT45 |
| Managerial .....                                      | Yes                   | No      | OWN46 | Yes                          | No      | OUT46 |

B4. If you provide formal training for any occupation group(s) roughly what proportion of your total labour costs is accounted for by formal training costs? *Please circle the appropriate number.*

| 0            | 1  | 2  | 3  | 4  | 5  | 6          |               |
|--------------|----|----|----|----|----|------------|---------------|
| Less than 1% | 1% | 2% | 3% | 4% | 5% | 6% or more | <b>TCOST4</b> |

B5. In providing formal training for any occupational group, have you used the following organisations? If you have, please indicate your level of satisfaction with the training provided.

*Please circle appropriate answer and where applicable a number in each row.*

|   |              | Used |    | Very Dissatisfied |   | Satisfied |   |               |  |
|---|--------------|------|----|-------------------|---|-----------|---|---------------|--|
|   |              | 1    | 0  | 1                 | 2 | 3         | 4 |               |  |
| University/Institute of Higher Education.....         | <b>TRN41</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT41</b> |  |
| Colleges of further education/technical colleges..... | <b>TRN42</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT42</b> |  |
| Private Training agencies/consultants.....            | <b>TRN43</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT43</b> |  |
| Chambers of Commerce.....                             | <b>TRN44</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT44</b> |  |
| Voluntary organisations.....                          | <b>TRN45</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT45</b> |  |
| Professional associations.....                        | <b>TRN46</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT46</b> |  |
| Trade associations.....                               | <b>TRN47</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT47</b> |  |
| Equipment suppliers.....                              | <b>TRN48</b> | Yes  | No | 1                 | 2 | 3         | 4 | <b>TSAT48</b> |  |

B6. Does your firm currently employ any of the following types of workers and has there been a significant change in your employment of them since 1994? *Please circle answers to both questions in each row.*

|                                      |               | Currently employed |    | Significant change from 1994 |           |          |               |  |
|--------------------------------------|---------------|--------------------|----|------------------------------|-----------|----------|---------------|--|
|                                      |               | 1                  | 0  | 3                            | 2         | 1        |               |  |
| Self employed workers.....           | <b>WORK41</b> | Yes                | No | Increase                     | No Change | Decrease | <b>WKCH41</b> |  |
| Casual workers.....                  | <b>WORK42</b> | Yes                | No | Increase                     | No Change | Decrease | <b>WKCH42</b> |  |
| Workers on fixed term contracts..... | <b>WORK43</b> | Yes                | No | Increase                     | No Change | Decrease | <b>WKCH43</b> |  |

B7. Does your firm currently use any of the following to improve your competitiveness and has there been a significant change in your use of them since 1994? *Please circle answers to both questions in each row.*

|                                  |               | Currently in use |    | Significant change from 1994 |           |          |               |  |
|----------------------------------|---------------|------------------|----|------------------------------|-----------|----------|---------------|--|
|                                  |               | 1                | 0  | 3                            | 2         | 1        |               |  |
| Total quality management.....    | <b>WORK44</b> | Yes              | No | Increase                     | No Change | Decrease | <b>WKCH44</b> |  |
| Quality circles.....             | <b>WORK45</b> | Yes              | No | Increase                     | No Change | Decrease | <b>WKCH45</b> |  |
| Job rotation/multi-skilling..... | <b>WORK46</b> | Yes              | No | Increase                     | No Change | Decrease | <b>WKCH46</b> |  |
| Performance related pay.....     | <b>WORK47</b> | Yes              | No | Increase                     | No Change | Decrease | <b>WKCH47</b> |  |

**SECTION C COMMERCIAL ACTIVITY AND COMPETITIVE SITUATION**

THIS SECTION IS DESIGNED TO LET YOU TELL US SOMETHING ABOUT THE KEY CHARACTERISTICS OF YOUR BUSINESS IN TERMS OF ITS SUPPLIERS, CUSTOMERS AND COMPETITIVE SITUATION.

C1. What percentage of your turnover is accounted for by work carried out by you on a subcontract basis for other firms?  
 1994  % **SUBCON4A**      1997  % **SUBCON4**

C2. What percentage of your sales last year was accounted for by: *Please circle appropriate answer in each row.*

|                         | 1             | 2     | 3     | 4     | 5             |                 |
|-------------------------|---------------|-------|-------|-------|---------------|-----------------|
| Largest Customer? ..... | Less than 10% | 10-24 | 25-49 | 50-75 | More than 75% | <b>LARGEST4</b> |
| Top 5 Customers? .....  | Less than 10% | 10-24 | 25-49 | 50-75 | More than 75% | <b>TOP45</b>    |

C3. In which of the following areas do you feel your main competitive advantage lies?  
*Please circle appropriate number in each row.*

|  | Insignificant advantage | Slightly Significant advantage | Moderately Significant advantage | Very Significant advantage | Crucial advantage |                |
|--|-------------------------|--------------------------------|----------------------------------|----------------------------|-------------------|----------------|
| Price.....   | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP401</b> |
| Marketing and promotion skills.....                        | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP402</b> |
| Speed of service .....                                     | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP403</b> |
| Established reputation.....                                | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP404</b> |
| Cost advantages .....                                      | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP405</b> |
| Product or service design.....                             | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP406</b> |
| Product or service quality.....                            | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP407</b> |
| Specialised expertise/product/service .....                | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP408</b> |
| Range of expertise/products/services .....                 | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP409</b> |
| Flair and creativity .....                                 | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP410</b> |
| Personal attention and responsiveness to client needs..... | 1                       | 2                              | 3                                | 4                          | 5                 | <b>COMP411</b> |

C4. How many firms do you regard as serious competitors?.....  **COMPS41**

C5. Of your serious competitors:  
 how many are larger than your firm?.....  **COMPS42**

how many are overseas firms? .....  **COMPS43**

C6. Of your serious overseas competitor firms, how many compete with you in the following markets:  
 only home? .....  **COMPS44**

only overseas?.....  **COMPS45**

both home and overseas?.....  **COMPS46**

C7. Has your firm in the last 3 years entered into formal or informal collaborative or partnership arrangements with any other organisations? ..... 

|     |    |
|-----|----|
| 1   | 0  |
| Yes | No |

**PARTARR4**

**IF NO, PLEASE GO TO SECTION D**

**IF YES**, were they: *Please tick appropriate box(es)*

**12 = LOCAL + NATIONAL, 13 = LOCAL + OVERSEAS, 14 = NATIONAL + OVERSEAS, 15 = ALL THREE**  
**BLANK = 0**

|                                       | 10<br>Local<br>(within 10 miles) | 11<br>National | 2<br>Overseas |                                   |
|---------------------------------------|----------------------------------|----------------|---------------|-----------------------------------|
| Suppliers? .....                      |                                  |                |               | <b>PARTN41</b>                    |
| Customers? .....                      |                                  |                |               | <b>PARTN42</b>                    |
| Higher Education Institutes? .....    |                                  |                |               | <b>PARTN43</b>                    |
| Firms in your line of business? ..... |                                  |                |               | <b>PARTN44</b>                    |
| Others?<br>Please specify.....        |                                  |                |               | <b>OTHPART4</b><br><b>PARTN45</b> |

C8. If you have entered into such arrangements were they designed to:  
*Please circle appropriate answer in each row.*

|  | 1   | 0  |               |
|--|-----|----|---------------|
| Share research and development activity? .....   | Yes | No | <b>ARR401</b> |
| Expand the range of expertise or products offered to customers? .....                  | Yes | No | <b>ARR402</b> |
| Assist in management and staff development? .....                                      | Yes | No | <b>ARR403</b> |
| Improve financial and market credibility? .....  | Yes | No | <b>ARR404</b> |
| Assist in the development of specialist services/products required by customers? ..... | Yes | No | <b>ARR405</b> |
| Gain access to or spread costs of new equipment or information sources? .....          | Yes | No | <b>ARR406</b> |
| Help to keep current customers? .....  | Yes | No | <b>ARR407</b> |
| Provide access to new UK markets? .....  | Yes | No | <b>ARR408</b> |
| Provide access to overseas markets? .....  | Yes | No | <b>ARR409</b> |

**SECTION D INNOVATION**

IN THIS SECTION WE WOULD LIKE YOU TO TELL US ABOUT YOUR INNOVATIVE ACTIVITY.

PLEASE COUNT INNOVATION AS OCCURRING WHEN A NEW OR SIGNIFICANTLY IMPROVED MANUFACTURED PRODUCT, OR SERVICE PRODUCT, IS INTRODUCED TO THE MARKET (*PRODUCT INNOVATION*), OR WHEN A NEW OR SIGNIFICANTLY IMPROVED PRODUCTION, OR DELIVERY METHOD, IS USED COMMERCIALY (*PROCESS INNOVATION*), AND WHEN **CHANGES** IN KNOWLEDGE OR SKILLS, ROUTINES, COMPETENCE, EQUIPMENT, OR ENGINEERING PRACTICES **ARE REQUIRED** TO DEVELOP OR MAKE THE NEW PRODUCT, OR TO INTRODUCE THE NEW PROCESS.

PLEASE DO **NOT** COUNT AS PRODUCT INNOVATION, CHANGES WHICH ARE PURELY AESTHETIC (SUCH AS CHANGES IN COLOUR OR DECORATION), OR WHICH SIMPLY INVOLVE PRODUCT DIFFERENTIATION (THAT IS MINOR DESIGN OR PRESENTATION CHANGES WHICH DIFFERENTIATE THE PRODUCT WHILE LEAVING IT TECHNICALLY UNCHANGED IN CONSTRUCTION OR PERFORMANCE). THE IMPLEMENTATION OF A QUALITY STANDARD IS NOT INNOVATION UNLESS IT IS DIRECTLY RELATED TO THE INTRODUCTION OF TECHNOLOGICALLY NEW, OR SIGNIFICANTLY IMPROVED, PRODUCTS OR PROCESSES.

D1. Has your firm introduced any innovations in manufactured products or in service products, or in their processes of production, or distribution, during the last 3 years? *Please circle appropriate answers in each row.*

*If for any row you introduced more than one innovation then please circle the answers for that row with respect to your most important innovation.*

|  |               | Innovation new<br>to your firm but<br><b>not</b> to your<br>industry | Innovation new<br>to your firm <b>and</b><br>to your industry |               |
|--|---------------|--|---|---------------|
|  |               | 1      0   | 1      0  |               |
| Technologically new or significantly improved manufactured product.....                              | <b>NEW411</b> | Yes    No  | Yes    No   | <b>NEW421</b> |
| Technologically new or significantly improved methods of producing manufactured product .....        | <b>NEW412</b> | Yes    No  | Yes    No   | <b>NEW422</b> |
| Technological improvements in supply, storage or distribution systems for manufactured product ..... | <b>NEW413</b> | Yes    No  | Yes    No   | <b>NEW423</b> |
| New or significantly improved service product .....  | <b>NEW414</b> | Yes    No  | Yes    No   | <b>NEW424</b> |
| New method to produce and deliver your service product .....   | <b>NEW415</b> | Yes    No  | Yes    No   | <b>NEW425</b> |

**IF YOU CIRCLED NO IN ALL BOXES PLEASE GO TO QUESTION D5**

D2. How were your firm's total sales in the last financial year distributed across the following types of products?

|  |      |                |
|--|------|----------------|
| Products or services unchanged or only marginally changed in the last 3 years .....  | %    | <b>SALPC41</b> |
| Significantly improved products or services introduced within the last 3 years ..... | %    | <b>SALPC42</b> |
| New products or services introduced within the last 3 years .....                    | %    | <b>SALPC43</b> |
| Total sales last year .....  | 100% |                |

D3. Please indicate the importance of the following internal sources (these include management, production, R&D, sales and marketing functions) and/or external sources of information for your firm's innovation activities during the past 3 years. *Please circle appropriate number in each row.*

|  | Insignificant source | Slightly significant source | Moderately significant source | Very significant source | Crucial source |                |
|--|----------------------|-----------------------------|-------------------------------|-------------------------|----------------|----------------|
| <b>Internal Sources:</b>   |                      |                             |                               |                         |                |                |
| within the firm .....  | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC401</b>  |
| within the group (if you have subsidiary or associated companies)..... | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC402</b>  |
| <b>External Sources:</b>   |                      |                             |                               |                         |                |                |
| suppliers of equipment, materials and components.....                  | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC404</b>  |
| clients or customers.....  | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC405</b>  |
| competitors in your line of business.....                              | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC406</b>  |
| consultancy firms.....   | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC407</b>  |
| universities/higher education institutes .....                         | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC408</b>  |
| government or private non-profit research institutes .....             | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC416</b>  |
| patent disclosures.....  | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC410</b>  |
| professional conferences, meetings, professional journals.....         | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC411</b>  |
| fairs/exhibitions.....   | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC412</b>  |
| trade associations, chambers of commerce.....                          | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC4134</b> |
| computer-based information networks.....                               | 1                    | 2                           | 3                             | 4                       | 5              | <b>SRC417</b>  |

D4. Please indicate the importance of the following factors as objectives of your firm's innovation activities during the last 3 years: *Please circle appropriate number in each row.*

|   | Insignificant objective | Slightly significant objective | Moderately significant objective | Very significant objective | Crucial objective |                |
|---|-------------------------|--------------------------------|----------------------------------|----------------------------|-------------------|----------------|
| Replacing products being phased out.....  | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ401</b>  |
| Extending product range.....              | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ402</b>  |
| Reducing production lead times .....      | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ409</b>  |
| Gaining new markets or market share ..... | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ4034</b> |
| Reducing labour costs .....               | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ405</b>  |
| Reducing materials consumption.....       | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ406</b>  |
| Reducing energy consumption .....         | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ407</b>  |
| Improving production flexibility.....     | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ410</b>  |
| Improving product quality.....            | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ413</b>  |
| Reducing environmental damage .....       | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ414</b>  |
| Fulfilling regulations, standards.....    | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OBJ417</b>  |

D5. Please indicate the relative importance of the following factors as barriers to innovation in your firm during the last 3 years. Please circle appropriate number in each row.

|   | Insignificant barrier | Slightly significant barrier | Moderately significant barrier | Very significant barrier | Crucial barrier |               |
|---|-----------------------|------------------------------|--------------------------------|--------------------------|-----------------|---------------|
| <b>Economic Factors:</b>  |                       |                              |                                |                          |                 |               |
| excessive perceived risk.....                                       | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR401</b> |
| lack of appropriate sources of finance .....                        | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR402</b> |
| innovation costs too high .....                                     | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR403</b> |
| pay-off period of innovation too long.....                          | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR404</b> |
| <b>Firm Level Factors:</b>  |                       |                              |                                |                          |                 |               |
| firm's innovation potential (e.g. R&D, design, etc.) too small..... | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR405</b> |
| lack of skilled personnel .....                                     | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR406</b> |
| lack of information on technologies .....                           | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR407</b> |
| lack of information on markets.....                                 | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR408</b> |
| innovation costs hard to control.....                               | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR409</b> |
| organisational rigidities .....                                     | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR410</b> |
| <b>Other Reasons:</b>   |                       |                              |                                |                          |                 |               |
| lack of technological opportunities.....                            | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR413</b> |
| no need to innovate due to earlier innovations .....                | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR414</b> |
| innovation too easy to copy .....                                   | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR415</b> |
| legislation, norms, regulations, standards, taxation.....           | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR416</b> |
| lack of customer responsiveness to innovation.....                  | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR417</b> |
| uncertainty in timing of innovation .....                           | 1                     | 2                            | 3                              | 4                        | 5               | <b>BAR418</b> |

D6. Does your firm intend to develop or introduce any innovations in products or processes in the next 3 years?..... 

|     |    |
|-----|----|
| 1   | 0  |
| Yes | No |

**INTRO4**

D7. Does your firm engage in R&D: Please tick one box.  
Continuously ..... 

|   |
|---|
| 2 |
|---|

 Occasionally ..... 

|   |
|---|
| 1 |
|---|

 Never..... 

|   |
|---|
| 0 |
|---|

**RD41**

D8. Did your firm engage in R&D in the last financial year? ..... 

|     |    |
|-----|----|
| 1   | 0  |
| Yes | No |

**RD42**

**IF NO, PLEASE GO TO SECTION E**

**IF YES:** How many staff were engaged in R&D?

for part of their time ..... 

|             |
|-------------|
| <b>RD43</b> |
|-------------|

 for all of their time ..... 

|             |
|-------------|
| <b>RD44</b> |
|-------------|

What was your total R&D expenditure? ..... £ 

|             |
|-------------|
| <b>RD45</b> |
|-------------|

 ,000

**SECTION E FACTORS AFFECTING EXPANSION AND EFFICIENCY**

THIS SECTION IS DESIGNED TO HELP US UNDERSTAND THE PRINCIPAL FACTORS WHICH AFFECT THE RATE OF DEVELOPMENT OF YOUR BUSINESS AND YOUR USE OF AND ACCESS TO BUSINESS ADVICE.

E1. How important have the following been as business objectives for your firm in the past 3 years? *Please circle appropriate number in each row.*

|                                 | Insignificant objective | Slightly significant objective | Moderately significant objective | Very significant objective | Crucial objective |  |
|---------------------------------|-------------------------|--------------------------------|----------------------------------|----------------------------|-------------------|--|
| Profit margin on sales .....    | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB401</b>                                      |
| Profit rate on assets .....     | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB402</b>                                      |
| Growth in sales/turnover .....  | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB403</b>                                      |
| Growth in exports .....         | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB404</b>                                      |
| Growth in employment .....      | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB405</b>                                      |
| Market share in UK .....        | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB406</b>                                      |
| Market share overseas .....     | 1                       | 2                              | 3                                | 4                          | 5                 | <b>BOB407</b>                                      |
| Other(s)<br>Please specify..... | 1                       | 2                              | 3                                | 4                          | 5                 | <b>OTHBOB41<br/>BOB408<br/>OTHBOB42<br/>BOB409</b> |

E2. Given your firm's history in the past 3 years, which of the following factors have acted as a significant limitation on your ability to meet your business objectives? *Please circle appropriate number in each row.*

|   | Insignificant limitation | Slightly significant limitation | Moderately significant limitation | Very significant limitation | Crucial limitation |               |
|---|--------------------------|---------------------------------|-----------------------------------|-----------------------------|--------------------|---------------|
| Availability and cost of finance for expansion.....               | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM401</b> |
| Availability and cost of overdraft finance .....                  | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM402</b> |
| Skilled labour .....  | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM403</b> |
| Management skills .....   | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM404</b> |
| Marketing and sales skills .....                                  | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM405</b> |
| Acquisition of technology .....                                   | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM406</b> |
| Difficulties in implementing new technology.....                  | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM407</b> |
| Availability of appropriate premises or site.....                 | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM408</b> |
| Access to overseas markets .....                                  | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM409</b> |
| Overall growth of market demand in principal product markets..... | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM410</b> |
| Increasing competition .....                                      | 1                        | 2                               | 3                                 | 4                           | 5                  | <b>LIM411</b> |

E3. Which of the following do you feel describes your growth objectives over the next 3 years? *Please tick one box.*

Become smaller ....  **1** Stay same size .....  **2** Grow moderately....  **3** Grow substantially ....  **4** **GROWTH4**

E4. In which of the following areas, if any, have you used the services of other firms, agencies or external consultants during the last 3 years? Please also assess the impact of the advice you received on meeting your business objectives. *Please circle appropriate answer and where applicable number in each row.*

|   |                | Areas in which advice/services used in last 3 years |    | No impact | Slight impact | Moderate impact | Important impact | Crucial impact |                 |
|---|----------------|---|----|-----------|---------------|-----------------|------------------|----------------|-----------------|
|   |                | 1   | 0  |           |               |                 |                  |                |                 |
| Business strategy .....                 | <b>AREA401</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC401</b> |
| Management organisation .....           | <b>AREA402</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC402</b> |
| Marketing .....                         | <b>AREA403</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC403</b> |
| Market research .....                   | <b>AREA404</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC404</b> |
| Advertising .....                       | <b>AREA405</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC405</b> |
| Public relations .....                  | <b>AREA406</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC406</b> |
| Product or service design .....         | <b>AREA407</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC407</b> |
| New technology .....                    | <b>AREA408</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC408</b> |
| Computer services .....                 | <b>AREA409</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC409</b> |
| Staff recruitment .....                 | <b>AREA410</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC410</b> |
| Staff training and development .....    | <b>AREA412</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC412</b> |
| Taxation and financial management ..... | <b>AREA411</b> | Yes   | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC411</b> |

E5. From which of the following external sources have you obtained business advice (as distinct from basic information) in the last 3 years? For each source you have used, please indicate the impact of the advice you received on meeting your business objectives. *Please circle appropriate answer and where applicable number in each row.*

|   |               | Used at least once in last 3 years |    | No impact | Slight impact | Moderate impact | Important impact | Crucial impact |                 |
|---|---------------|------------------------------------|----|-----------|---------------|-----------------|------------------|----------------|-----------------|
|   |               | 1                                  | 0  |           |               |                 |                  |                |                 |
| <b>Private Sector Sources:</b>  |               |                                    |    |           |               |                 |                  |                |                 |
| Accountant .....  | <b>ESC401</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC421</b> |
| Solicitor .....   | <b>ESC402</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC422</b> |
| Bank .....  | <b>ESC403</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC423</b> |
| Business friend/relative .....  | <b>ESC404</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC424</b> |
| Customers .....   | <b>ESC405</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC425</b> |
| Suppliers .....   | <b>ESC406</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC426</b> |
| Consultants .....   | <b>ESC407</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC427</b> |
| <b>Business Associations:</b>   |               |                                    |    |           |               |                 |                  |                |                 |
| Local Chamber of Commerce .....   | <b>ESC408</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC428</b> |
| Trade/Professional association .....  | <b>ESC409</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC429</b> |
| <b>Government and Other Agencies:</b>   |               |                                    |    |           |               |                 |                  |                |                 |
| Local Enterprise Agency .....   | <b>ESC410</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC430</b> |
| Local TEC or Scottish Enterprise .....  | <b>ESC411</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC431</b> |
| Business Link (England); Business Shop (Scotland); Business Connect (Wales) ... | <b>ESC412</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC432</b> |
| Rural Development Commission or Regional Agency .....                           | <b>ESC413</b> | Yes                                | No | 1         | 2             | 3               | 4                | 5              | <b>IMPAC433</b> |

E6. If you have obtained business advice from any of the sources listed below in the last 3 years please indicate whether this primarily involved a site visit and/or a written brief?  
Please circle appropriate answers on **each** row.

|  |               | Involving site visits |    | Based on a written brief or contract |    |               |
|--|---------------|-----------------------|----|--------------------------------------|----|---------------|
|  |               | 1                     | 0  | 1                                    | 0  |               |
| Consultants.....   | <b>VIS407</b> | Yes                   | No | Yes                                  | No | <b>CON407</b> |
| Business associations (Chambers, trade or professional associations).....        | <b>VIS489</b> | Yes                   | No | Yes                                  | No | <b>CON489</b> |
| Local enterprise agency.....   | <b>VIS410</b> | Yes                   | No | Yes                                  | No | <b>CON410</b> |
| Local TEC or Scottish Enterprise.....  | <b>VIS411</b> | Yes                   | No | Yes                                  | No | <b>CON411</b> |
| Business Link (England); Business Shop (Scotland); Business Connect (Wales)..... | <b>VIS412</b> | Yes                   | No | Yes                                  | No | <b>CON412</b> |

E7. For the specific case of Business Links (Business Shop in Scotland and Business Connect in Wales) which of its services, if any have you used? For those services used, please indicate your level of satisfaction.  
Please circle appropriate answer **and** where applicable number in **each** row.

|                                       |               | Used Business Link/ Shop/Connect services |    | Very dissatisfied | Dissatisfied | Satisfied | Very satisfied |                |
|---------------------------------------|---------------|---|----|-------------------|--------------|-----------|----------------|----------------|
|                                       |               | 1   | 0  | 1                 | 2            | 3         | 4              |                |
| General business information.....     | <b>BUS401</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT401</b> |
| Diagnostic assessment.....            | <b>BUS402</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT402</b> |
| Personal business advisor.....        | <b>BUS403</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT403</b> |
| Sales and marketing advice.....       | <b>BUS404</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT404</b> |
| Export advice.....                    | <b>BUS405</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT405</b> |
| Finance and accounting advice.....    | <b>BUS406</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT406</b> |
| Training/Investors in People.....     | <b>BUS407</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT407</b> |
| Product/service design advice.....    | <b>BUS408</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT408</b> |
| Innovation and technology advice..... | <b>BUS409</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT409</b> |
| Educational and university links..... | <b>BUS410</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT410</b> |
| Grants.....                           | <b>BUS411</b> | Yes                                       | No | 1                 | 2            | 3         | 4              | <b>BSAT411</b> |

E8. Have you received financial assistance or advice from any of the government business support schemes listed below during the last 3 years? For those schemes used, please indicate your level of satisfaction.  
Please circle appropriate answer **and** where applicable number for **each** row.

|   |               | Assistance or Advice obtained |    | Very dissatisfied | Dissatisfied | Satisfied | Very satisfied |                |
|---|---------------|-------------------------------|----|-------------------|--------------|-----------|----------------|----------------|
|   |               | 1                             | 0  | 1                 | 2            | 3         | 4              |                |
| Teaching Company Scheme.....                                  | <b>GOV401</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT401</b> |
| Investors in People.....                                      | <b>GOV402</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT402</b> |
| Skills for Small Businesses.....                              | <b>GOV403</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT403</b> |
| LINK.....   | <b>GOV404</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT404</b> |
| Regional Supply Network.....                                  | <b>GOV405</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT405</b> |
| Export Credit Guarantees/Export Information Services.....     | <b>GOV406</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT406</b> |
| Small Firms Loan Guarantee Scheme.....                        | <b>GOV407</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT407</b> |
| Regional Selective Assistance/Regional Enterprise Grants..... | <b>GOV408</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT408</b> |
| SMART or SPUR.....  | <b>GOV409</b> | Yes                           | No | 1                 | 2            | 3         | 4              | <b>GSAT409</b> |

**SECTION F ACQUISITION ACTIVITY, CAPITAL EXPENDITURE AND FINANCE**

THIS SECTION IS CONCERNED WITH YOUR RECENT EXPERIENCE OF TAKEOVERS AND SEEKING FINANCE.

F1. How many firms has your firm acquired or merged with in the last 2 years?   **MERGE4**  
 Please enter NIL if you made no acquisitions or mergers. (mv:-1) .....

**IF NIL PLEASE GO TO QUESTION F3**

F2. If your firm has acquired or merged with another firm(s) in the last 2 years, how important were the following factors in your acquisition activity? Please circle appropriate number in each row. (mv:-1; na:-99)

|  | Insignificant factor | Slightly significant factor | Moderately significant factor | Very significant factor | Crucial factor |                            |
|--|----------------------|-----------------------------|-------------------------------|-------------------------|----------------|----------------------------|
| Increase or maintain market share .....          | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ401</b>              |
| Gain economies of scale.....                     | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ402</b>              |
| Gain skilled labour .....                        | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ411</b>              |
| Gain in management skills.....                   | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ412</b>              |
| Gain marketing and sales skills .....            | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ413</b>              |
| Acquire technology .....                         | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ414</b>              |
| Ensure more continuous employment for staff..... | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ415</b>              |
| Increase vertical integration .....              | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ416</b>              |
| Improve access to overseas markets .....         | 1                    | 2                           | 3                             | 4                       | 5              | <b>ACQ417</b>              |
| Other reasons<br>(Please specify) .....          | 1                    | 2                           | 3                             | 4                       | 5              | <b>OTHACQ41<br/>ACQ418</b> |

F3. Has your firm been the subject of a takeover bid or merger proposal in the last 2 years from any of the following firms? Please circle appropriate answers in each row. (mv:-1)

|                   |                               | UK Company |    | Overseas Company |    |              |
|-------------------|-------------------------------|------------|----|------------------|----|--------------|
|                   |                               | Yes        | No | Yes              | No |              |
| <b>0 Neither</b>  |                               |            |    |                  |    |              |
| <b>1 UK</b>       | A larger firm?.....           |            |    |                  |    | <b>BID41</b> |
| <b>2 Overseas</b> | A firm of similar size? ..... |            |    |                  |    | <b>BID42</b> |
| <b>3 Both</b>     | A smaller firm? .....         |            |    |                  |    | <b>BID43</b> |

F4. What was your firm's capital expenditure in the last 2 years? Please complete each box entering NIL if no expenditure was made. (mv:-1;na:-99)

|                   | <b>CAPEX4R</b>    |             | <b>CAPEX4O</b>    |            | <b>CAPEX4</b>     |
|-------------------|-------------------|-------------|-------------------|------------|-------------------|
| Replacement ..... | £            ,000 | Other ..... | £            ,000 | TOTAL..... | £            ,000 |

F5. What investment appraisal methods do you use? Please circle appropriate answer for each row.

|   |                            | 1   | 0  |  |                     |
|---|----------------------------|-----|----|--|---------------------|
| Payback Method.....                               | <b>INAP41</b>              | Yes | No | <b>IF YES:</b><br>Payback period ..... | months <b>PAYB4</b> |
| Discounted Cash Flow method (e.g. NPV or IRR).... | <b>INAP42</b>              | Yes | No | <b>IF YES:</b><br>Discount rate.....   | % <b>DISC4</b>      |
| Other<br>(Please specify) .....                   | <b>OTHINAP4<br/>INAP43</b> | Yes | No |  |                     |

(PAYB4, DISC4:-98: variable)

**PLEASE TURN OVER PAGE TO COMPLETE QUESTIONNAIRE**

F6. Have you made attempts to obtain additional finance (i.e. additional to internal cash flows) in the last 2 years? (mv:-1) ..... 

|     |    |
|-----|----|
| 1   | 0  |
| Yes | No |

**FINANC4**

**IF NO, PLEASE GO TO QUESTION F8**

**IF YES**, roughly what amount did you seek and what proportion of the overall amount you sought did you obtain? *If you were completely unsuccessful in obtaining finance enter NIL in the percentage obtained box.* (mv:-1; na:-99; OBTPC4=-98 if in process)

|                     |                   |                           |               |
|---------------------|-------------------|---------------------------|---------------|
|                     | <b>SOUGHT4</b>    |                           | <b>OBTPC4</b> |
| Amount sought ..... | £            ,000 | Percentage obtained ..... | %             |

F7. For each of the following sources please indicate which you approached in the last 2 financial years and whether the approach resulted in an offer of financial support. In addition please indicate roughly the percentage of the overall total additional finance which you obtained from each source.

*Please tick one of the first four boxes in each row, and please put the percentage obtained in the final column of each row.* (mv:-1; na-99)

|   |                                  | 0                 | 1  | 2   | 3   | 4 if addfin>0 but appr not filled in         |                 |
|---|----------------------------------|-------------------|--|---|---|--|-----------------|
|   |                                  | Not<br>Approached | Approached<br>but no<br>finance<br>offered | Approached<br>but offered<br>less than<br>full amount | Approached<br>and offered<br>the full<br>amount | % of finance<br>obtained from<br>this source |                 |
| Banks .....                             | <b>APPR41</b>                    |                   |  |   |   | %  | <b>ADDFIN41</b> |
| Venture Capital Firms .....             | <b>APPR42</b>                    |                   |  |   |   | %  | <b>ADDFIN42</b> |
| Hire Purchase or Leasing Firms .....    | <b>APPR43</b>                    |                   |  |   |   | %  | <b>ADDFIN43</b> |
| Factoring/Invoice Discounting Firms     | <b>APPR44</b>                    |                   |  |   |   | %  | <b>ADDFIN44</b> |
| Trade Customers/ Suppliers .....        | <b>APPR45</b>                    |                   |  |   |   | %  | <b>ADDFIN45</b> |
| Partners/Working Shareholders .....     | <b>APPR46</b>                    |                   |  |   |   | %  | <b>ADDFIN46</b> |
| Other Private Individuals .....         | <b>APPR47</b>                    |                   |  |   |   | %  | <b>ADDFIN47</b> |
| Other Sources<br>(Please specify) ..... | <b>OTHAPPR4</b><br><b>APPR48</b> |                   |  |   |   | %  | <b>ADDFIN48</b> |
| <b>APPR48 = 0 when OTHAPPR4 = -1</b>    |                                  |                   |  |   |   | <b>Total</b>                                 | <b>100%</b>     |

F8. Please answer these questions about your cost of borrowing. (mv:-1; BOR4\_2=-98 if base rate involved; na:-99)

|  |                   |               |
|--|-------------------|---------------|
| What was your level of interest payments in the last financial year? .....       | £            ,000 | <b>BOR4_1</b> |
| Roughly what % of your interest payments related to interest on overdrafts?..... | %                 | <b>BOR4_2</b> |
| How has your level of borrowing changed in the last two financial years? .....   | Up / Same / Down  | <b>BORCH4</b> |
|  | 1 / 2 / 3         |               |

THANK YOU FOR YOUR HELP

## Variable list for the CBR 1997 SME survey (Second Panel)

**NOTE:** Missing values have been coded:-1 and not applicable:-99 throughout .

| Q4  | Name     | Comments on derivations   |
|---|----------|---|
|   | COUNTY4  | <b>COUNTY:</b> Derived from firm's address; for codes see location definition                                 |
|   | URBRUR4  | <b>URBRUR:</b> Derived from firm's address; for codes see location definition                                 |
|   | UKSIC92  | <b>UKSIC92:</b> SIC code according to D & B in 1997   |
| <b>Section A.: General characteristics of your business</b> |          |   |
| A1  | YEAR4    |   |
| A2  | EST41    |   |
| A3  | EST42    |   |
| A3  | EST43    |   |
| A3  | EST44    |   |
| A3  | EST45    |   |
| A4  | MONTHS4  |   |
| A4  | DATE4    |   |
| A4  | FINYR4   |   |
| A4  | TURN4    |   |
| A4  | EXP4     |   |
| A4  | PROF4    | <b>PROF4:</b> If profit was (1) ie. a loss of £1000, this has been coded: -0.99 to distinguish from m/v: -1.  |
| A4  | AVEMP4   |   |
| A4  | SITES4   |   |
| A5  | MONTHS4A | A5 coded as not applicable if firm formed after 1993 and left blank   |
| A5  | DATE4A   |   |
| A5  | FINYR4A  |   |
| A5  | TURN4A   |   |
| A5  | EXP4A    |   |
| A5  | PROF4A   | <b>PROF4A:</b> If profit was (1) ie. a loss of £1000, this has been coded: -0.99 to distinguish from m/v: -1. |
| A5  | AVEMP4A  |   |
| A5  | SITES4A  |   |
|   | CO4      | <b>CO4:</b> Derived from A9 -A11; 1:company; 2:partnership; 3:sole trader; 4:non-profit organisation          |
| A6  | CSP41    |   |
| A6  | CSP42    |   |
| A6  | CSPAGE4  |   |
| A6  | CSPGEN4  |   |
| A7  | CSPDEG4  |   |
| A7  | CSPROF4  |   |
| A8  | CSP44    |   |
| A8  | CSP45    | <b>CSP45</b> n/a if CSP44=1   |
| A9  | TOTDP41  | A9 n/a for sole proprietors   |
| A9  | TOTDP42  |   |
| A9  | TOTDP43  |   |
| A10   | SHARE41  | A10 n/a for sole proprietors and partnerships   |
| A10   | SHARE42  |   |
| A10   | SHARE43  |   |
| A11   | TYPE4    | A11 n/a for sole proprietors and partnerships; see value label for 'other' codes                              |
| <b>Section B: Workforce and training</b>                    |          |   |
| B1  | TOTEMP41 |   |
| B1  | TOTEMP42 |   |
| B1  | TOTEMP43 |   |
| B1  | TOTEMP44 |   |
| B1  | TOTEMP45 |   |
| B1  | TOTEMP46 |   |
| B1  | FULL41   |   |
| B1  | FULL42   |   |
| B1  | FULL43   |   |
| B1  | FULL44   |   |
| B1  | FULL45   |   |
| B1  | FULL46   |   |
| B1  | PART41   |   |
| B1  | PART42   |   |
| B1  | PART43   |   |
| B1  | PART44   |   |
| B1  | PART45   |   |
| B1  | PART46   |   |
| B1  | RECDIF41 | RECDIF4i n/a if not applicable or not recruiting written alongside occupation group                           |
| B1  | RECDIF42 |   |
| B1  | RECDIF43 |   |

| Q4  | Name     | Comments on derivations  |
|---|----------|--|
| B1  | RECDIF44 |  |
| B1  | RECDIF45 |  |
| B1  | RECDIF46 |  |
| B2  | LAB41    | If TOTEMP4i = 0 and LAB4i = 0 then LAB4i has been recoded to n/a     |
| B2  | LAB42    | If TOTEMP4i = 0 and LAB4i > 0 then LAB4i has been recoded to missing |
| B2  | LAB43    |  |
| B2  | LAB44    |  |
| B2  | LAB45    |  |
| B2  | LAB46    |  |
| B3  | TRAIN4   |  |
| B3  | OWN41    | OWN4i n/a if TRAIN4 = 0 or TOTEMP4i = 0                              |
| B3  | OWN42    |  |
| B3  | OWN43    |  |
| B3  | OWN44    |  |
| B3  | OWN45    |  |
| B3  | OWN46    |  |
| B3  | OUT41    | OUT4i n/a if TRAIN4 = 0 or TOTEMP4i = 0                              |
| B3  | OUT42    |  |
| B3  | OUT43    |  |
| B3  | OUT44    |  |
| B3  | OUT45    |  |
| B3  | OUT46    |  |
| B4  | TCOST4   | B4 n/a if TRAIN4=0   |
| B5  | TRN41    | B5 n/a if TRAIN4=0   |
| B5  | TRN42    |  |
| B5  | TRN43    |  |
| B5  | TRN44    |  |
| B5  | TRN45    |  |
| B5  | TRN46    |  |
| B5  | TRN47    |  |
| B5  | TRN48    |  |
| B5  | TSAT41   | TSAT4i n/a if TRN4i = 0  |
| B5  | TSAT42   |  |
| B5  | TSAT43   |  |
| B5  | TSAT44   |  |
| B5  | TSAT45   |  |
| B5  | TSAT46   |  |
| B5  | TSAT47   |  |
| B5  | TSAT48   |  |
| B6  | WORK41   |  |
| B6  | WORK42   |  |
| B6  | WORK43   |  |
| B6  | WKCH41   |  |
| B6  | WKCH42   |  |
| B6  | WKCH43   |  |
| B7  | WORK44   |  |
| B7  | WORK45   |  |
| B7  | WORK46   |  |
| B7  | WORK47   |  |
| B7  | WKCH44   |  |
| B7  | WKCH45   |  |
| B7  | WKCH46   |  |
| B7  | WKCH47   |  |
| <b>Section C: Commercial Activity and Competitive Situation</b> |          |  |
| C1  | SUBCON4A | n/a if firm formed after 1994 and left blank                         |
| C1  | SUBCON4  |  |
| C2  | LARGEST4 |  |
| C2  | TOP45    |  |
| C3  | COMP401  |  |
| C3  | COMP402  |  |
| C3  | COMP403  |  |
| C3  | COMP404  |  |
| C3  | COMP405  |  |
| C3  | COMP406  |  |
| C3  | COMP407  |  |
| C3  | COMP408  |  |
| C3  | COMP409  |  |
| C3  | COMP410  |  |
| C3  | COMP411  |  |
| C4  | COMPS41  |  |

| Q4                           | Name     |               | Comments on derivations                            |
|------------------------------|----------|---------------|--|
| C5                           | COMPS42  |               | C5 n/a if COMPS41=0                                |
| C5                           | COMPS43  |               |  |
| C6                           | COMPS44  |               | C6 n/a if COMPS41=0 or COMPS43=0                   |
| C6                           | COMPS45  |               |  |
| C6                           | COMPS46  |               |  |
| C7                           | PARTARR4 |               |  |
| C7                           | PARTN41  |               | C7 n/a if PARTARR4=0                               |
| C7                           | PARTN42  |               |  |
| C7                           | PARTN43  |               |  |
| C7                           | PARTN44  |               |  |
| C7                           | PARTN45  |               |  |
| C7                           | OTHPART4 |               | see value label for codes                          |
| C8                           | ARR401   |               | C8 n/a if PARTARR4=0                               |
| C8                           | ARR402   |               |  |
| C8                           | ARR403   |               |  |
| C8                           | ARR404   |               |  |
| C8                           | ARR405   |               |  |
| C8                           | ARR406   |               |  |
| C8                           | ARR407   |               |  |
| C8                           | ARR408   |               |  |
| C8                           | ARR409   |               |  |
| <b>Section D: Innovation</b> |          |               |  |
| D1                           | NEW411   |               |  |
| D1                           | NEW412   |               |  |
| D1                           | NEW413   |               |  |
| D1                           | NEW414   |               |  |
| D1                           | NEW415   |               |  |
| D1                           | NEW421   |               |  |
| D1                           | NEW422   |               |  |
| D1                           | NEW423   |               |  |
| D1                           | NEW424   |               |  |
| D1                           | NEW425   |               |  |
| D2                           | SALPC41  |               | SALPC41 =100 if D1 = 0                             |
| D2                           | SALPC42  |               | SALPC42 = 0 if D1 = 0                              |
| D2                           | SALPC43  |               | SALPC43 = 0 if D1 = 0                              |
| D3                           | SRC401   |               | D3 n/a if D1 = 0                                   |
| D3                           | SRC402   | <b>SRC402</b> | only answered if firm is part of a group, else n/a |
| D3                           | SRC404   |               |  |
| D3                           | SRC405   |               |  |
| D3                           | SRC406   |               |  |
| D3                           | SRC407   |               |  |
| D3                           | SRC408   |               |  |
| D3                           | SRC416   |               |  |
| D3                           | SRC410   |               |  |
| D3                           | SRC411   |               |  |
| D3                           | SRC412   |               |  |
| D3                           | SRC4134  |               |  |
| D3                           | SRC417   |               |  |
| D4                           | OBJ401   |               | D4 n/a if D1 = 0                                   |
| D4                           | OBJ402   |               |  |
| D4                           | OBJ409   |               |  |
| D4                           | OBJ4034  |               |  |
| D4                           | OBJ405   |               |  |
| D4                           | OBJ406   |               |  |
| D4                           | OBJ407   |               |  |
| D4                           | OBJ410   |               |  |
| D4                           | OBJ413   |               |  |
| D4                           | OBJ414   |               |  |
| D4                           | OBJ417   |               |  |
| D5                           | BAR401   |               |  |
| D5                           | BAR402   |               |  |
| D5                           | BAR403   |               |  |
| D5                           | BAR404   |               |  |
| D5                           | BAR405   |               |  |
| D5                           | BAR406   |               |  |
| D5                           | BAR407   |               |  |
| D5                           | BAR408   |               |  |
| D5                           | BAR409   |               |  |
| D5                           | BAR410   |               |  |
| D5                           | BAR413   |               |  |

| Q4   | Name     |  | Comments on derivations   |
|--|----------|--|---------------------------|
| D5   | BAR414   |  |                           |
| D5   | BAR415   |  |                           |
| D5   | BAR416   |  |                           |
| D5   | BAR417   |  |                           |
| D5   | BAR418   |  |                           |
| D6   | INTRO4   |  |                           |
| D7   | RD41     |  |                           |
| D8   | RD42     |  |                           |
| D8   | RD43     |  | RD43 = 0 if RD42 = 0      |
| D8   | RD44     |  | RD44 = 0 if RD42 = 0      |
| D8   | RD45     |  | RD45 = 0 if RD42 = 0      |
| <b>Section E: Factors Affecting Expansion and Efficiency</b> |          |  |                           |
| E1   | BOB401   |  |                           |
| E1   | BOB402   |  |                           |
| E1   | BOB403   |  |                           |
| E1   | BOB404   |  |                           |
| E1   | BOB405   |  |                           |
| E1   | BOB406   |  |                           |
| E1   | BOB407   |  |                           |
| E1   | OTHBOB41 |  | see value label for codes |
| E1   | BOB408   |  |                           |
| E1   | OTHBOB42 |  | see value label for codes |
| E1   | BOB409   |  |                           |
| E2   | LIM401   |  |                           |
| E2   | LIM402   |  |                           |
| E2   | LIM403   |  |                           |
| E2   | LIM404   |  |                           |
| E2   | LIM405   |  |                           |
| E2   | LIM406   |  |                           |
| E2   | LIM407   |  |                           |
| E2   | LIM408   |  |                           |
| E2   | LIM409   |  |                           |
| E2   | LIM410   |  |                           |
| E2   | LIM411   |  |                           |
| E3   | GROWTH4  |  |                           |
| E4   | AREA401  |  |                           |
| E4   | AREA402  |  |                           |
| E4   | AREA403  |  |                           |
| E4   | AREA404  |  |                           |
| E4   | AREA405  |  |                           |
| E4   | AREA406  |  |                           |
| E4   | AREA407  |  |                           |
| E4   | AREA408  |  |                           |
| E4   | AREA409  |  |                           |
| E4   | AREA410  |  |                           |
| E4   | AREA412  |  |                           |
| E4   | AREA411  |  |                           |
| E4   | IMPAC401 |  | IMPAC4i n/a if AREA4i=0   |
| E4   | IMPAC402 |  |                           |
| E4   | IMPAC403 |  |                           |
| E4   | IMPAC404 |  |                           |
| E4   | IMPAC405 |  |                           |
| E4   | IMPAC406 |  |                           |
| E4   | IMPAC407 |  |                           |
| E4   | IMPAC408 |  |                           |
| E4   | IMPAC409 |  |                           |
| E4   | IMPAC410 |  |                           |
| E4   | IMPAC412 |  |                           |
| E4   | IMPAC411 |  |                           |
| E5   | ESC401   |  |                           |
| E5   | ESC402   |  |                           |
| E5   | ESC403   |  |                           |
| E5   | ESC404   |  |                           |
| E5   | ESC405   |  |                           |
| E5   | ESC406   |  |                           |
| E5   | ESC407   |  |                           |
| E5   | ESC408   |  |                           |
| E5   | ESC409   |  |                           |
| E5   | ESC410   |  |                           |
| E5   | ESC411   |  |                           |

| Q4  | Name     |  | Comments on derivations               |
|---|----------|--|---------------------------------------|
| E5  | ESC412   |  |                                       |
| E5  | ESC413   |  |                                       |
| E5  | IMPAC421 |  | IMPAC42i n/a if ESC4i=0               |
| E5  | IMPAC422 |  |                                       |
| E5  | IMPAC423 |  |                                       |
| E5  | IMPAC424 |  |                                       |
| E5  | IMPAC425 |  |                                       |
| E5  | IMPAC426 |  |                                       |
| E5  | IMPAC427 |  |                                       |
| E5  | IMPAC428 |  |                                       |
| E5  | IMPAC429 |  |                                       |
| E5  | IMPAC430 |  |                                       |
| E5  | IMPAC431 |  |                                       |
| E5  | IMPAC432 |  |                                       |
| E5  | IMPAC433 |  |                                       |
| E6  | VIS407   |  | VIS407 n/a if ESC407 = 0              |
| E6  | VIS489   |  | VIS489 n/a if ESC408 and ESC409 = 0   |
| E6  | VIS410   |  | VIS410 n/a if ESC410 = 0              |
| E6  | VIS411   |  | VIS411 n/a if ESC411 = 0              |
| E6  | VIS412   |  | VIS412 n/a if ESC412 = 0              |
| E6  | CON407   |  | CON407 n/a if ESC407 = 0              |
| E6  | CON489   |  | CON489 n/a if ESC408 and ESC409 = 0   |
| E6  | CON410   |  | CON410 n/a if ESC410 = 0              |
| E6  | CON411   |  | CON411 n/a if ESC411 = 0              |
| E6  | CON412   |  | CON412 n/a if ESC412 = 0              |
| E7  | BUS401   |  | E7 n/a if ESC412 = 0                  |
| E7  | BUS402   |  |                                       |
| E7  | BUS403   |  |                                       |
| E7  | BUS404   |  |                                       |
| E7  | BUS405   |  |                                       |
| E7  | BUS406   |  |                                       |
| E7  | BUS407   |  |                                       |
| E7  | BUS408   |  |                                       |
| E7  | BUS409   |  |                                       |
| E7  | BUS410   |  |                                       |
| E7  | BUS411   |  |                                       |
| E7  | BSAT401  |  | BSAT4i= n/a if BUS4i=0 and ESC412 = 0 |
| E7  | BSAT402  |  |                                       |
| E7  | BSAT403  |  |                                       |
| E7  | BSAT404  |  |                                       |
| E7  | BSAT405  |  |                                       |
| E7  | BSAT406  |  |                                       |
| E7  | BSAT407  |  |                                       |
| E7  | BSAT408  |  |                                       |
| E7  | BSAT409  |  |                                       |
| E7  | BSAT410  |  |                                       |
| E7  | BSAT411  |  |                                       |
| E8  | GOV401   |  |                                       |
| E8  | GOV402   |  |                                       |
| E8  | GOV403   |  |                                       |
| E8  | GOV404   |  |                                       |
| E8  | GOV405   |  |                                       |
| E8  | GOV406   |  |                                       |
| E8  | GOV407   |  |                                       |
| E8  | GOV408   |  |                                       |
| E8  | GOV409   |  |                                       |
| E8  | GSAT401  |  | GSAT4i= n/a if GOV4i=0                |
| E8  | GSAT402  |  |                                       |
| E8  | GSAT403  |  |                                       |
| E8  | GSAT404  |  |                                       |
| E8  | GSAT405  |  |                                       |
| E8  | GSAT406  |  |                                       |
| E8  | GSAT407  |  |                                       |
| E8  | GSAT408  |  |                                       |
| E8  | GSAT409  |  |                                       |
| <b>Section F: Acquisition Activity, Capital Expenditure and Finance</b> |          |  |                                       |
| F1  | MERGE4   |  |                                       |
| F2  | ACQ401   |  | F2= n/a if MERGE4=0                   |
| F2  | ACQ402   |  |                                       |
| F2  | ACQ411   |  |                                       |

| Q4 | Name      | Comments on derivations                         |
|----|-----------|---|
| F2 | ACQ412    |   |
| F2 | ACQ413    |   |
| F2 | ACQ414    |   |
| F2 | ACQ415    |   |
| F2 | ACQ416    |   |
| F2 | ACQ417    |   |
| F2 | OTHACQ41  | see value label for codes                       |
| F2 | ACQ418    |   |
| F3 | BID41     |   |
| F3 | BID42     |   |
| F3 | BID43     |   |
| F4 | CAPEX4R   |   |
| F4 | CAPEX4O   |   |
| F4 | CAPEX4    |   |
| F5 | INAP41    |   |
| F5 | INAP42    |   |
| F5 | OTHINAP4  | see value label for codes                       |
| F5 | INAP43    |   |
| F5 | PAYB4     | n/a if INAP41=0; code: -98 if answered variable |
| F5 | DISC4     | n/a if INAP42=0; code: -98 if answered variable |
| F6 | FINANC4   |   |
| F6 | SOUGHT4   | F6 = n/a if FINANC4=0                           |
| F6 | OBTPC4    | code: -98 if in process                         |
| F7 | APPR41    | F7 = n/a if FINANC4=0                           |
| F7 | APPR42    |   |
| F7 | APPR43    |   |
| F7 | APPR44    |   |
| F7 | APPR45    |   |
| F7 | APPR46    |   |
| F7 | APPR47    |   |
| F7 | OTHAPPR4  | <b>OTHAPPR4:</b> recoded into APPR410 - APPR416 |
| F7 | APPR48    | and ADDFIN410 - ADDFIN416                       |
| F7 | APPR410   |   |
| F7 | APPR411   |   |
| F7 | APPR412   |   |
| F7 | APPR413   |   |
| F7 | APPR414   |   |
| F7 | APPR415   |   |
| F7 | APPR416   |   |
| F7 | ADDFIN41  |   |
| F7 | ADDFIN42  |   |
| F7 | ADDFIN43  |   |
| F7 | ADDFIN44  |   |
| F7 | ADDFIN45  |   |
| F7 | ADDFIN46  |   |
| F7 | ADDFIN47  |   |
| F7 | ADDFIN48  |   |
| F7 | ADDFIN410 |   |
| F7 | ADDFIN411 |   |
| F7 | ADDFIN412 |   |
| F7 | ADDFIN413 |   |
| F7 | ADDFIN414 |   |
| F7 | ADDFIN415 |   |
| F7 | ADDFIN416 |   |
| F8 | BOR4_1    |   |
| F8 | BOR4_2    | code: -98 if answer relates to base rate        |
| F8 | BORCH4    |   |

## LOCATION CODES

### COUNTY4

#### South East

|    |                 |
|----|-----------------|
| 1  | Greater London  |
| 2  | Bedfordshire    |
| 3  | Berkshire       |
| 4  | Buckinghamshire |
| 5  | East Sussex     |
| 6  | Essex           |
| 7  | Hampshire       |
| 8  | Hertfordshire   |
| 9  | Isle of Wight   |
| 10 | Kent            |
| 11 | Oxfordshire     |
| 12 | Surrey          |
| 13 | West Sussex     |

#### East Anglia

|    |                |
|----|----------------|
| 14 | Cambridgeshire |
| 15 | Norfolk        |
| 16 | Suffolk        |

#### South West

|    |                 |
|----|-----------------|
| 17 | Avon            |
| 18 | Cornwall        |
| 19 | Devon           |
| 20 | Dorset          |
| 21 | Gloucestershire |
| 22 | Somerset        |
| 23 | Wiltshire       |

#### West Midlands

|    |                           |
|----|---------------------------|
| 24 | Hereford & Worcestershire |
| 25 | Shropshire                |
| 26 | Staffordshire             |
| 27 | Warwickshire              |
| 28 | West Midlands             |

#### East Midlands

|    |                  |
|----|------------------|
| 29 | Derbyshire       |
| 30 | Leicestershire   |
| 31 | Lincolnshire     |
| 32 | Northamptonshire |
| 33 | Nottinghamshire  |

Yorkshire & Humberside

- 34 Humberside
- 35 North Yorkshire
- 36 South Yorkshire
- 37 West Yorkshire

North West

- 38 Cheshire
- 39 Greater Manchester
- 40 Lancashire
- 41 Merseyside

North

- 42 Cleveland
- 43 Cumbria
- 44 Durham
- 45 Northumberland
- 46 Tyne & Wear

Wales

- 47 Clwyd
- 48 Dyfed
- 49 Gwent
- 50 Gwynedd
- 51 Mid-Glamorgan
- 52 Powys
- 53 South Glamorgan
- 54 West Glamorgan

Scotland

- 55 Borders
- 56 Central
- 57 Dumfries & Galloway
- 58 Fife
- 59 Grampian
- 60 Highlands, Orkney, Shetland & W.I.
- 61 Lothian
- 62 Strathclyde
- 63 Tayside
  
- 64 Northern Ireland

## **URBRUR4**

1      Conurbations

Clydeside  
London  
Manchester  
Merseyside  
Sheffield  
Tyneside  
West Midlands  
West Yorkshire

2      Large Towns

Populations of 150,000+

3      Small Towns

10,000 - 149,999

4      Rural

below 9,999

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|------|---------|------|---------|---------|
|   | sample    | answer      | N           | %    | N       | %    |         |         |
| ACQ401 Acquisition activity:market share                          | 2520      | 290         | 187         | 64.5 | 103     | 35.5 | 1       | 5       |
| ACQ402 Acquisition activity:economies of scale                    | 2520      | 290         | 187         | 64.5 | 103     | 35.5 | 1       | 5       |
| ACQ411 Acquisition activity:skilled labour                        | 2520      | 290         | 186         | 64.1 | 104     | 35.9 | 1       | 5       |
| ACQ412 Acquisition activity:management skills                     | 2520      | 290         | 184         | 63.4 | 106     | 36.6 | 1       | 5       |
| ACQ413 Acquisition activity:marketing & sales skills              | 2520      | 290         | 185         | 63.8 | 105     | 36.2 | 1       | 5       |
| ACQ414 Acquisition activity:acquire technology                    | 2520      | 290         | 187         | 64.5 | 103     | 35.5 | 1       | 5       |
| ACQ415 Acquisition activity:continuous employment for staff       | 2520      | 290         | 184         | 63.4 | 106     | 36.6 | 1       | 5       |
| ACQ416 Acquisition activity:vertical integration                  | 2520      | 290         | 182         | 62.8 | 108     | 37.2 | 1       | 5       |
| ACQ417 Acquisition activity:access to overseas markets            | 2520      | 290         | 185         | 63.8 | 105     | 36.2 | 1       | 5       |
| ACQ418 Acquisition activity:other reasons                         | 2520      | 290         | 30          | 10.3 | 260     | 89.7 | 2       | 5       |
| ADDFIN41 Additional finance:banks %                               | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN42 Additional finance:venture capital firms %               | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN43 Additional finance:hire purchase or leasing firms %      | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN44 Additional finance:factoring/invoice discounting firms % | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN45 Additional finance:trade customers/suppliers %           | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN46 Additional finance:partners/working shareholders %       | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN47 Additional finance:other private individuals %           | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADDFIN48 Additional finance:other sources %                       | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADFIN410 Additional finance:Private Loans                         | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADFIN411 Additional finance:Other Company                         | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADFIN412 Additional finance:Floatation                            | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADFIN413 Additional finance:Takeover/JV                           | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 50      |
| ADFIN414 Additional finance:Government/EU Initiative              | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| ADFIN415 Additional finance:Capital Restructure                   | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 0       |
| ADFIN416 Additional finance:Other                                 | 2520      | 1007        | 756         | 75.1 | 251     | 24.9 | 0       | 100     |
| APPR41 Finance from:banks   | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR42 Finance from:venture capital firms                         | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR43 Finance from:hire purchase or leasing firms                | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR44 Finance from:factoring/invoice discounting firms           | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR45 Finance from:trade customers/suppliers                     | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR46 Finance from:partners/working shareholders                 | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR47 Finance from:other private individuals                     | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR48 Finance from: other sources                                | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|------|---------|------|---------|---------|
|   | sample    | answer      | N           | %    | N       | %    |         |         |
| APPR410 Finance from:Private Loans                                  | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR411 Finance from:Other Company                                  | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR412 Finance from:Floatation                                     | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 3       |
| APPR413 Finance from:Takeover/JV                                    | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 3       |
| APPR414 Finance from:Government/EU Initiative                       | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| APPR415 Finance from:Capital Restructure                            | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 1       |
| APPR416 Finance from:Other  | 2520      | 1007        | 923         | 91.7 | 84      | 8.3  | 0       | 4       |
| AREA401 Areas of advice:business strategy                           | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA402 Areas of advice:management organisation                     | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA403 Areas of advice:marketing                                   | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA404 Areas of advice:market research                             | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA405 Areas of advice:advertising                                 | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA406 Areas of advice:public relations                            | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA407 Areas of advice:product/service design                      | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA408 Areas of advice:new technology                              | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA409 Areas of advice:computer services                           | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA410 Areas of advice:staff recruitment                           | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA411 Areas of advice:taxation & financial management             | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| AREA412 Areas of advice:staff training & development                | 2520      | 2520        | 2440        | 96.8 | 80      | 3.2  | 0       | 1       |
| ARR401 Arrangements designed to: share R & D activity               | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR402 Arrangements designed to: expand expertise or products       | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR403 Arrangements designed to: assist in management               | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR404 Arrangements designed to: improve financial credibility      | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR405 Arrangements designed to: development of specialist services | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR406 Arrangements designed to: gain access to new equipment, etc  | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR407 Arrangements designed to: help keep current customers        | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR408 Arrangements designed to: provide access to new UK markets   | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| ARR409 Arrangements designed to: provide access to overseas markets | 2520      | 828         | 804         | 97.1 | 24      | 2.9  | 0       | 1       |
| AVEMP4 Average number of employees (latest)                         | 2520      | 2520        | 2314        | 91.8 | 206     | 8.2  | 1       | 485     |
| AVEMP4A Average number of employees (3 years ago)                   | 2520      | 2318        | 1845        | 79.6 | 473     | 20.4 | 0       | 650     |
| BAR401 Economic factors: excessive perceived risk                   | 2520      | 2520        | 2157        | 85.6 | 363     | 14.4 | 1       | 5       |
| BAR402 Economic factors: lack of appropriate sources of finance     | 2520      | 2520        | 2189        | 86.9 | 331     | 13.1 | 1       | 5       |
| BAR403 Economic factors: innovation costs too high                  | 2520      | 2520        | 2165        | 85.9 | 355     | 14.1 | 1       | 5       |

Response and descriptives

| Variable name and label  | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|--|-----------|-------------|-------------|------|---------|------|---------|---------|
|  | sample    | answer      | N           | %    | N       | %    |         |         |
| BAR404 Economic factors: pay-off period of innovation too long | 2520      | 2520        | 2154        | 85.5 | 366     | 14.5 | 1       | 5       |
| BAR405 Firm level factors: innovation potential too small      | 2520      | 2520        | 2106        | 83.6 | 414     | 16.4 | 1       | 5       |
| BAR406 Firm level factors: lack of skilled personnel           | 2520      | 2520        | 2131        | 84.6 | 389     | 15.4 | 1       | 5       |
| BAR407 Firm level factors: lack of information on technologies | 2520      | 2520        | 2099        | 83.3 | 421     | 16.7 | 1       | 5       |
| BAR408 Firm level factors: lack of information on markets      | 2520      | 2520        | 2113        | 83.8 | 407     | 16.2 | 1       | 5       |
| BAR409 Firm level factors: innovation costs hard to control    | 2520      | 2520        | 2110        | 83.7 | 410     | 16.3 | 1       | 5       |
| BAR410 Firm level factors: resistance to change                | 2520      | 2520        | 2098        | 83.3 | 422     | 16.7 | 1       | 5       |
| BAR413 Other reasons: lack of technological opportunities      | 2520      | 2520        | 2031        | 80.6 | 489     | 19.4 | 1       | 5       |
| BAR414 Other reasons: earlier innovations                      | 2520      | 2520        | 2034        | 80.7 | 486     | 19.3 | 1       | 5       |
| BAR415 Other reasons: innovation too easy to copy              | 2520      | 2520        | 2037        | 80.8 | 483     | 19.2 | 1       | 5       |
| BAR416 Other reasons: legislation, standards, taxation, etc    | 2520      | 2520        | 2032        | 80.6 | 488     | 19.4 | 1       | 5       |
| BAR417 Other reasons: lack of customer responsiveness          | 2520      | 2520        | 2049        | 81.3 | 471     | 18.7 | 1       | 5       |
| BAR418 Other reasons: uncertainty in timing of innovation      | 2520      | 2520        | 2034        | 80.7 | 486     | 19.3 | 1       | 5       |
| BID41 Subject of takeover/merger bid:larger firm?              | 2520      | 2520        | 2418        | 96.0 | 102     | 4.0  | 0       | 3       |
| BID42 Subject of takeover/merger bid:similar size firm?        | 2520      | 2520        | 2418        | 96.0 | 102     | 4.0  | 0       | 3       |
| BID43 Subject of takeover/merger bid:smaller firm?             | 2520      | 2520        | 2418        | 96.0 | 102     | 4.0  | 0       | 3       |
| BOB401 Business objectives:profit margin on sales              | 2520      | 2520        | 2402        | 95.3 | 118     | 4.7  | 1       | 5       |
| BOB402 Business objectives:profit rate on assets               | 2520      | 2520        | 2314        | 91.8 | 206     | 8.2  | 1       | 5       |
| BOB403 Business objectives:growth in sales/turnover            | 2520      | 2520        | 2397        | 95.1 | 123     | 4.9  | 1       | 5       |
| BOB404 Business objectives:growth in exports                   | 2520      | 2520        | 2275        | 90.3 | 245     | 9.7  | 1       | 5       |
| BOB405 Business objectives:growth in employment                | 2520      | 2520        | 2324        | 92.2 | 196     | 7.8  | 1       | 5       |
| BOB406 Business objectives:market share in UK                  | 2520      | 2520        | 2328        | 92.4 | 192     | 7.6  | 1       | 5       |
| BOB407 Business objectives:market share overseas               | 2520      | 2520        | 2278        | 90.4 | 242     | 9.6  | 1       | 5       |
| BOB408 Business objectives:other                               | 2520      | 2520        | 212         | 8.4  | 2308    | 91.6 | 1       | 5       |
| BOB409 Business objectives:other                               | 2520      | 2520        | 9           | 0.4  | 2511    | 99.6 | 1       | 5       |
| BOR4_1 Level of interest payments (£th)                        | 2520      | 2520        | 1935        | 76.8 | 585     | 23.2 | 0       | 15000   |
| BOR4_2 % of interest payments related to overdrafts            | 2520      | 1818        | 1319        | 72.6 | 499     | 27.4 | 0       | 100     |
| BORCH4 How has your borrowing changed in the last 2 years?     | 2520      | 2520        | 2191        | 86.9 | 329     | 13.1 | 1       | 3       |
| BSAT401 Business Links:general business info satisfaction      | 2520      | 436         | 358         | 82.1 | 78      | 17.9 | 1       | 4       |
| BSAT402 Business Links:diagnostic assessment satisfaction      | 2520      | 209         | 135         | 64.6 | 74      | 35.4 | 1       | 4       |
| BSAT403 Business Links:personal business advice satisfaction   | 2520      | 243         | 168         | 69.1 | 75      | 30.9 | 1       | 4       |
| BSAT404 Business Links:sales & marketing advice satisfaction   | 2520      | 256         | 181         | 70.7 | 75      | 29.3 | 1       | 4       |
| BSAT405 Business Links:export advice satisfaction              | 2520      | 213         | 140         | 65.7 | 73      | 34.3 | 1       | 4       |

Response and descriptives

| Variable name and label  | Available | Eligible to | Non missing |       | Missing |      | Minimum | Maximum |
|--|-----------|-------------|-------------|-------|---------|------|---------|---------|
|  | sample    | answer      | N           | %     | N       | %    |         |         |
| BSAT406 Business Links:finance & accounting advice satisfaction      | 2520      | 171         | 97          | 56.7  | 74      | 43.3 | 1       | 4       |
| BSAT407 Business Links:training/investors in people satisfaction     | 2520      | 316         | 237         | 75.0  | 79      | 25.0 | 1       | 4       |
| BSAT408 Business Links:product/service design advice satisfaction    | 2520      | 112         | 39          | 34.8  | 73      | 65.2 | 1       | 4       |
| BSAT409 Business Links:innov & technology advice satisfaction        | 2520      | 173         | 100         | 57.8  | 73      | 42.2 | 1       | 4       |
| BSAT410 Business Links:educational & university links satisfaction   | 2520      | 156         | 84          | 53.8  | 72      | 46.2 | 1       | 4       |
| BSAT411 Business Links:grants satisfaction                           | 2520      | 381         | 306         | 80.3  | 75      | 19.7 | 1       | 4       |
| BUS401 Business Links:general business info                          | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS402 Business Links:diagnostic assessment                          | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS403 Business Links:personal business advice                       | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS404 Business Links:sales & marketing advice                       | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS405 Business Links:export advice                                  | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS406 Business Links:finance & accounting advice                    | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS407 Business Links:training/investors in people                   | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS408 Business Links:product/service design advice                  | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS409 Business Links:innov & technology advice                      | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS410 Business Links:educational & university links                 | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| BUS411 Business Links:grants   | 2520      | 673         | 602         | 89.5  | 71      | 10.5 | 0       | 1       |
| CAPEX4 Capital expenditure:total (£th)                               | 2520      | 2520        | 1952        | 77.5  | 568     | 22.5 | 0       | 57000   |
| CAPEX4O Capital expenditure:other (£th)                              | 2520      | 2520        | 1948        | 77.3  | 572     | 22.7 | 0       | 57000   |
| CAPEX4R Capital expenditure:replacement (£th)                        | 2520      | 2520        | 1997        | 79.2  | 523     | 20.8 | 0       | 5500    |
| CO4 Is your firm a company/partnership/proprietorship?               | 2520      | 2520        | 2520        | 100.0 | 0       | 0.0  | 1       | 3       |
| COMP401 Competitive advantage:price                                  | 2520      | 2520        | 2420        | 96.0  | 100     | 4.0  | 1       | 5       |
| COMP402 Competitive advantage:marketing & promotion skills           | 2520      | 2520        | 2382        | 94.5  | 138     | 5.5  | 1       | 5       |
| COMP403 Competitive advantage:speed of service                       | 2520      | 2520        | 2430        | 96.4  | 90      | 3.6  | 1       | 5       |
| COMP404 Competitive advantage:established reputation                 | 2520      | 2520        | 2459        | 97.6  | 61      | 2.4  | 1       | 5       |
| COMP405 Competitive advantage:cost advantages                        | 2520      | 2520        | 2360        | 93.7  | 160     | 6.3  | 1       | 5       |
| COMP406 Competitive advantage:product/service design                 | 2520      | 2520        | 2347        | 93.1  | 173     | 6.9  | 1       | 5       |
| COMP407 Competitive advantage:product/service quality                | 2520      | 2520        | 2418        | 96.0  | 102     | 4.0  | 1       | 5       |
| COMP408 Competitive advantage:specialised expertise/products/service | 2520      | 2520        | 2419        | 96.0  | 101     | 4.0  | 1       | 5       |
| COMP409 Competitive advantage:range of expertise/products/services   | 2520      | 2520        | 2388        | 94.8  | 132     | 5.2  | 1       | 5       |
| COMP410 Competitive advantage:flair & creativity                     | 2520      | 2520        | 2387        | 94.7  | 133     | 5.3  | 1       | 5       |
| COMP411 Competitive advantage:personal attention to clients          | 2520      | 2520        | 2459        | 97.6  | 61      | 2.4  | 1       | 5       |
| COMPS41 How many firms do you regard as serious competitors?         | 2520      | 2520        | 2174        | 86.3  | 346     | 13.7 | 0       | 5000    |

## Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |       | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|-------|---------|------|---------|---------|
|   | sample    | answer      | N           | %     | N       | %    |         |         |
| COMPS42 How many serious competitors are larger than you?           | 2520      | 2332        | 1958        | 84.0  | 374     | 16.0 | 0       | 4500    |
| COMPS43 How many serious competitors are overseas?                  | 2520      | 2332        | 2031        | 87.1  | 301     | 12.9 | 0       | 297     |
| COMPS44 How many overseas serious comps compete only at home?       | 2520      | 876         | 510         | 58.2  | 366     | 41.8 | 0       | 297     |
| COMPS45 How many overseas serious comps compete only overseas?      | 2520      | 876         | 513         | 58.6  | 363     | 41.4 | 0       | 200     |
| COMPS46 How many overseas serious comps compete at home & overseas? | 2520      | 876         | 511         | 58.3  | 365     | 41.7 | 0       | 200     |
| CON407 Advice source:written contract by consultants                | 2520      | 836         | 612         | 73.2  | 224     | 26.8 | 0       | 1       |
| CON410 Advice source:written contract by local Enterprise Agency    | 2520      | 403         | 249         | 61.8  | 154     | 38.2 | 0       | 1       |
| CON411 Advice source:written contract by local TEC or Scottish Ent  | 2520      | 606         | 420         | 69.3  | 186     | 30.7 | 0       | 1       |
| CON412 Advice source:written contract by Business Link/Shop/Connect | 2520      | 673         | 475         | 70.6  | 198     | 29.4 | 0       | 1       |
| CON489 Advice source:written contract by CC or trade/prof assoc     | 2520      | 1067        | 579         | 54.3  | 488     | 45.7 | 0       | 1       |
| COUNTY4 Location: county  | 2520      | 2520        | 2520        | 100.0 | 0       | 0.0  | 1       | 63      |
| CSP41 CE/SP/Pr years with the firm                                  | 2520      | 2520        | 2452        | 97.3  | 68      | 2.7  | 1       | 68      |
| CSP42 CE/SP/Pr years as CE/SP/Pr                                    | 2520      | 2520        | 2413        | 95.8  | 107     | 4.2  | 1       | 55      |
| CSP44 Is the CE/SP/Pr a founder?                                    | 2520      | 2520        | 2486        | 98.7  | 34      | 1.3  | 0       | 1       |
| CSP45 IF NO, is the CE/SP/Pr a relative of the founder?             | 2520      | 669         | 632         | 94.5  | 37      | 5.5  | 0       | 1       |
| CSPAGE4 CE/SP/Pr age  | 2520      | 2520        | 2440        | 96.8  | 80      | 3.2  | 23      | 86      |
| CSPDEG4 Does your CE/SP/Pr hold a Science/Eng degree?               | 2520      | 2520        | 2363        | 93.8  | 157     | 6.2  | 0       | 1       |
| CSPGEN4 CE/SP/Pr gender   | 2520      | 2520        | 2463        | 97.7  | 57      | 2.3  | 1       | 2       |
| CSPROF4 Does your CE/SP/Pr hold another type of degree/prof qual?   | 2520      | 2520        | 2384        | 94.6  | 136     | 5.4  | 0       | 1       |
| DATE4 End of year to which data refers (latest)                     | 2520      | 2520        | 2195        | 87.1  | 325     | 12.9 | 1       | 12      |
| DATE4A End of year to which data refers (3 years ago)               | 2520      | 2317        | 1729        | 74.6  | 588     | 25.4 | 1       | 12      |
| DISC4 IF YES, discount rate %                                       | 2520      | 1331        | 98          | 7.4   | 1233    | 92.6 | 0       | 40      |
| ESC401 Advice source:accountant                                     | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC402 Advice source:solicitor                                      | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC403 Advice source:bank   | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC404 Advice source:business friend/relative                       | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC405 Advice source:customers                                      | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC406 Advice source:suppliers                                      | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC407 Advice source:consultants                                    | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC408 Advice source:local Chamber of Commerce                      | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC409 Advice source:trade/professional association                 | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC410 Advice source:local Enterprise Agency                        | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |
| ESC411 Advice source:local TEC or Scottish Enterprise               | 2520      | 2520        | 2474        | 98.2  | 46      | 1.8  | 0       | 1       |

Response and descriptives

| Variable name and label  | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|--|-----------|-------------|-------------|------|---------|------|---------|---------|
|  | sample    | answer      | N           | %    | N       | %    |         |         |
| ESC412 Advice source:Business Link/Shop/Connect                    | 2520      | 2520        | 2474        | 98.2 | 46      | 1.8  | 0       | 1       |
| ESC413 Advice source:RDC or Regional Agency                        | 2520      | 2520        | 2474        | 98.2 | 46      | 1.8  | 0       | 1       |
| EST41 How was your firm established?                               | 2520      | 2520        | 2433        | 96.5 | 87      | 3.5  | 1       | 5       |
| EST42 Your business estab: founder's unemployment                  | 2520      | 2520        | 1643        | 65.2 | 877     | 34.8 | 0       | 2       |
| EST43 Your business estab: founder's wish for own business         | 2520      | 2520        | 2050        | 81.3 | 470     | 18.7 | 0       | 2       |
| EST44 Your business estab: founder's new idea                      | 2520      | 2520        | 1570        | 62.3 | 950     | 37.7 | 0       | 2       |
| EST45 Your business estab: founder's wealth ambitions              | 2520      | 2520        | 1507        | 59.8 | 1013    | 40.2 | 0       | 2       |
| EXP4 Exports (latest) (£th)  | 2520      | 2520        | 2063        | 81.9 | 457     | 18.1 | 0       | 25650   |
| EXP4A Exports (3 years ago) (£th)                                  | 2520      | 2317        | 1663        | 71.8 | 654     | 28.2 | 0       | 12613   |
| FINANC4 Attempted to obtain external finance?                      | 2520      | 2520        | 2465        | 97.8 | 55      | 2.2  | 0       | 1       |
| FINYR4 Financial year to which data refers (latest)                | 2520      | 2520        | 2232        | 88.6 | 288     | 11.4 | 1993    | 1997    |
| FINYR4A Financial year to which data refers (3 years ago)          | 2520      | 2317        | 1751        | 75.6 | 566     | 24.4 | 1990    | 1997    |
| FULL41 Full time:semi-skilled & unskilled manual                   | 2520      | 2520        | 2248        | 89.2 | 272     | 10.8 | 0       | 400     |
| FULL42 Full time:skilled manual                                    | 2520      | 2520        | 2219        | 88.1 | 301     | 11.9 | 0       | 320     |
| FULL43 Full time:clerical & admin                                  | 2520      | 2520        | 2149        | 85.3 | 371     | 14.7 | 0       | 516     |
| FULL44 Full time:technicians & lower prof                          | 2520      | 2520        | 2234        | 88.7 | 286     | 11.3 | 0       | 166     |
| FULL45 Full time:technologists & higher prof                       | 2520      | 2520        | 2242        | 89.0 | 278     | 11.0 | 0       | 375     |
| FULL46 Full time:managerial  | 2520      | 2520        | 2087        | 82.8 | 433     | 17.2 | 0       | 213     |
| GOV401 Government Scheme:teaching company scheme                   | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV402 Government Scheme:investors in people                       | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV403 Government Scheme:skills for small businesses               | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV404 Government Scheme:LINK                                      | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV405 Government Scheme:regional supply network                   | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV406 Government Scheme:export credit guarantees/info services    | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV407 Government Scheme:small firms loan guarantee scheme         | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV408 Government Scheme:regional select assist/enterprise grants  | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GOV409 Government Scheme:SMART or SPUR                             | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| GROWTH4 Your growth objectives                                     | 2520      | 2520        | 2443        | 96.9 | 77      | 3.1  | 1       | 4       |
| GSAT401 Government Scheme:teaching company scheme satisfaction     | 2520      | 303         | 61          | 20.1 | 242     | 79.9 | 1       | 4       |
| GSAT402 Government Scheme:investors in people satisfaction         | 2520      | 507         | 254         | 50.1 | 253     | 49.9 | 1       | 4       |
| GSAT403 Government Scheme:skills for small businesses satisfaction | 2520      | 307         | 63          | 20.5 | 244     | 79.5 | 1       | 4       |
| GSAT404 Government Scheme:LINK satisfaction                        | 2520      | 354         | 109         | 30.8 | 245     | 69.2 | 1       | 4       |
| GSAT405 Government Scheme:regional supply network satisfaction     | 2520      | 271         | 27          | 10.0 | 244     | 90.0 | 1       | 4       |

Response and descriptives

| Variable name and label  | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|--|-----------|-------------|-------------|------|---------|------|---------|---------|
|  | sample    | answer      | N           | %    | N       | %    |         |         |
| GSAT406 Government Scheme:export guarantees/services satisfaction  | 2520      | 334         | 91          | 27.2 | 243     | 72.8 | 1       | 4       |
| GSAT407 Government Scheme:small firms loan guarantee satisfaction  | 2520      | 370         | 124         | 33.5 | 246     | 66.5 | 1       | 4       |
| GSAT408 Government Scheme:regional assist/grants satisfaction      | 2520      | 467         | 220         | 47.1 | 247     | 52.9 | 1       | 4       |
| GSAT409 Government Scheme:SMART or SPUR satisfaction               | 2520      | 311         | 69          | 22.2 | 242     | 77.8 | 1       | 4       |
| IMPAC401 Areas of advice:impact on business strategy               | 2520      | 751         | 660         | 87.9 | 91      | 12.1 | 1       | 5       |
| IMPAC402 Areas of advice:impact on management strategy             | 2520      | 520         | 437         | 84.0 | 83      | 16.0 | 1       | 5       |
| IMPAC403 Areas of advice:impact on marketing                       | 2520      | 815         | 717         | 88.0 | 98      | 12.0 | 1       | 5       |
| IMPAC404 Areas of advice:impact on market research                 | 2520      | 527         | 437         | 82.9 | 90      | 17.1 | 1       | 5       |
| IMPAC405 Areas of advice:impact on advertising                     | 2520      | 1212        | 1086        | 89.6 | 126     | 10.4 | 1       | 5       |
| IMPAC406 Areas of advice:impact on public relations                | 2520      | 484         | 392         | 81.0 | 92      | 19.0 | 1       | 5       |
| IMPAC407 Areas of advice:impact on product/service design          | 2520      | 563         | 463         | 82.2 | 100     | 17.8 | 1       | 5       |
| IMPAC408 Areas of advice:impact on new technology                  | 2520      | 929         | 814         | 87.6 | 115     | 12.4 | 1       | 5       |
| IMPAC409 Areas of advice:impact on computer services               | 2520      | 1402        | 1265        | 90.2 | 137     | 9.8  | 1       | 5       |
| IMPAC410 Areas of advice:impact on staff recruitment               | 2520      | 913         | 808         | 88.5 | 105     | 11.5 | 1       | 5       |
| IMPAC411 Areas of advice:impact on taxation & financial management | 2520      | 1452        | 1306        | 89.9 | 146     | 10.1 | 1       | 5       |
| IMPAC412 Areas of advice:impact on staff training & development    | 2520      | 1171        | 1056        | 90.2 | 115     | 9.8  | 1       | 5       |
| IMPAC421 Advice source:impact of accountant                        | 2520      | 2095        | 1986        | 94.8 | 109     | 5.2  | 1       | 5       |
| IMPAC422 Advice source:impact of solicitor                         | 2520      | 1430        | 1349        | 94.3 | 81      | 5.7  | 1       | 5       |
| IMPAC423 Advice source:impact of bank                              | 2520      | 1569        | 1480        | 94.3 | 89      | 5.7  | 1       | 5       |
| IMPAC424 Advice source:impact of business friend/relative          | 2520      | 981         | 910         | 92.8 | 71      | 7.2  | 1       | 5       |
| IMPAC425 Advice source:impact of customers                         | 2520      | 1214        | 1136        | 93.6 | 78      | 6.4  | 1       | 5       |
| IMPAC426 Advice source:impact of suppliers                         | 2520      | 947         | 882         | 93.1 | 65      | 6.9  | 1       | 5       |
| IMPAC427 Advice source:impact of consultants                       | 2520      | 836         | 769         | 92.0 | 67      | 8.0  | 1       | 5       |
| IMPAC428 Advice source:impact of local Chamber of Commerce         | 2520      | 616         | 551         | 89.4 | 65      | 10.6 | 1       | 5       |
| IMPAC429 Advice source:impact of trade/professional association    | 2520      | 823         | 753         | 91.5 | 70      | 8.5  | 1       | 5       |
| IMPAC430 Advice source:impact of local Enterprise Agency           | 2520      | 403         | 345         | 85.6 | 58      | 14.4 | 1       | 5       |
| IMPAC431 Advice source:impact of local TEC or Scottish Enterprise  | 2520      | 606         | 547         | 90.3 | 59      | 9.7  | 1       | 5       |
| IMPAC432 Advice source:impact of Business Link/Shop/Connect        | 2520      | 673         | 609         | 90.5 | 64      | 9.5  | 1       | 5       |
| IMPAC433 Advice source:impact of RDC or Regional Agency            | 2520      | 163         | 110         | 67.5 | 53      | 32.5 | 1       | 5       |
| INAP41 Investment appraisal method:payback                         | 2520      | 2520        | 1770        | 70.2 | 750     | 29.8 | 0       | 1       |
| INAP42 Investment appraisal method:discounted cash flow            | 2520      | 2520        | 1348        | 53.5 | 1172    | 46.5 | 0       | 1       |
| INAP43 Investment appraisal method:other                           | 2520      | 2520        | 2516        | 99.8 | 4       | 0.2  | 0       | 1       |
| INTRO4 Will you introduce innovations in products or processes ?   | 2520      | 2520        | 2346        | 93.1 | 174     | 6.9  | 0       | 1       |

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|------|---------|------|---------|---------|
|   | sample    | answer      | N           | %    | N       | %    |         |         |
| LAB41 % rate of labour turnover:semi-skilled & unskilled manual     | 2520      | 1482        | 1240        | 83.7 | 242     | 16.3 | 0       | 4       |
| LAB42 % rate of labour turnover:skilled manual                      | 2520      | 1443        | 1192        | 82.6 | 251     | 17.4 | 0       | 4       |
| LAB43 % rate of labour turnover:clerical & admin                    | 2520      | 2089        | 1792        | 85.8 | 297     | 14.2 | 0       | 4       |
| LAB44 % rate of labour turnover:technicians & lower prof            | 2520      | 1238        | 980         | 79.2 | 258     | 20.8 | 0       | 4       |
| LAB45 % rate of labour turnover:technologists & higher prof         | 2520      | 1088        | 844         | 77.6 | 244     | 22.4 | 0       | 4       |
| LAB46 % rate of labour turnover:managerial                          | 2520      | 1960        | 1662        | 84.8 | 298     | 15.2 | 0       | 4       |
| LARGEST4 Percent of sales due to largest customer                   | 2520      | 2520        | 2329        | 92.4 | 191     | 7.6  | 1       | 5       |
| LIM401 Limitations: availability & cost of finance for expansion    | 2520      | 2520        | 2362        | 93.7 | 158     | 6.3  | 1       | 5       |
| LIM402 Limitations: availability & cost of overdraft finance        | 2520      | 2520        | 2351        | 93.3 | 169     | 6.7  | 1       | 5       |
| LIM403 Limitations: skilled labour                                  | 2520      | 2520        | 2348        | 93.2 | 172     | 6.8  | 1       | 5       |
| LIM404 Limitations: management skills                               | 2520      | 2520        | 2342        | 92.9 | 178     | 7.1  | 1       | 5       |
| LIM405 Limitations: marketing & sales skills                        | 2520      | 2520        | 2357        | 93.5 | 163     | 6.5  | 1       | 5       |
| LIM406 Limitations: acquisition of technology                       | 2520      | 2520        | 2330        | 92.5 | 190     | 7.5  | 1       | 5       |
| LIM407 Limitations: difficulties in implementing new technology     | 2520      | 2520        | 2320        | 92.1 | 200     | 7.9  | 1       | 5       |
| LIM408 Limitations: availability of appropriate premises or site    | 2520      | 2520        | 2332        | 92.5 | 188     | 7.5  | 1       | 5       |
| LIM409 Limitations: access to overseas markets                      | 2520      | 2520        | 2282        | 90.6 | 238     | 9.4  | 1       | 5       |
| LIM410 Limitations: overall growth of market demand                 | 2520      | 2520        | 2295        | 91.1 | 225     | 8.9  | 1       | 5       |
| LIM411 Limitations: increasing competition                          | 2520      | 2520        | 2342        | 92.9 | 178     | 7.1  | 1       | 5       |
| MERGE4 How many firms have you acquired/merged with in last 2 years | 2520      | 2520        | 2424        | 96.2 | 96      | 3.8  | 0       | 15      |
| MONTHS4 No of months to which data refers (latest)                  | 2520      | 2520        | 2141        | 85.0 | 379     | 15.0 | 2       | 24      |
| MONTHS4A No of months to which data refers (3 years ago)            | 2520      | 2317        | 1689        | 72.9 | 628     | 27.1 | 1       | 23      |
| NEW411 Innov new to firm not industry:manuf product                 | 2520      | 2520        | 2312        | 91.7 | 208     | 8.3  | 0       | 1       |
| NEW412 Innov new to firm not industry:manuf production methods      | 2520      | 2520        | 2284        | 90.6 | 236     | 9.4  | 0       | 1       |
| NEW413 Innov new to firm not industry:supply systems, manuf prod    | 2520      | 2520        | 2256        | 89.5 | 264     | 10.5 | 0       | 1       |
| NEW414 Innov new to firm not industry:service product               | 2520      | 2520        | 2326        | 92.3 | 194     | 7.7  | 0       | 1       |
| NEW415 Innov new to firm not industry:service production methods    | 2520      | 2520        | 2318        | 92.0 | 202     | 8.0  | 0       | 1       |
| NEW421 Innov new to firm and industry:manuf product                 | 2520      | 2520        | 2276        | 90.3 | 244     | 9.7  | 0       | 1       |
| NEW422 Innov new to firm and industry:manuf production methods      | 2520      | 2520        | 2249        | 89.2 | 271     | 10.8 | 0       | 1       |
| NEW423 Innov new to firm and industry:supply systems, manuf prod    | 2520      | 2520        | 2220        | 88.1 | 300     | 11.9 | 0       | 1       |
| NEW424 Innov new to firm and industry:service product               | 2520      | 2520        | 2287        | 90.8 | 233     | 9.2  | 0       | 1       |
| NEW425 Innov new to firm and industry:service production methods    | 2520      | 2520        | 2279        | 90.4 | 241     | 9.6  | 0       | 1       |
| OBJ401 Innovation objectives:replacing phased out products          | 2520      | 1676        | 1387        | 82.8 | 289     | 17.2 | 1       | 5       |
| OBJ402 Innovation objectives:extending product range                | 2520      | 1676        | 1423        | 84.9 | 253     | 15.1 | 1       | 5       |

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|------|---------|------|---------|---------|
|   | sample    | answer      | N           | %    | N       | %    |         |         |
| OBJ4034 Innovation objectives:gaining new markets or market share | 2520      | 1676        | 1440        | 85.9 | 236     | 14.1 | 1       | 5       |
| OBJ405 Innovation objectives:reducing labour costs                | 2520      | 1676        | 1420        | 84.7 | 256     | 15.3 | 1       | 5       |
| OBJ406 Innovation objectives:reducing materials consumption       | 2520      | 1676        | 1398        | 83.4 | 278     | 16.6 | 1       | 5       |
| OBJ407 Innovation objectives:reducing energy consumption          | 2520      | 1676        | 1401        | 83.6 | 275     | 16.4 | 1       | 5       |
| OBJ409 Innovation objectives:reducing production lead times       | 2520      | 1676        | 1394        | 83.2 | 282     | 16.8 | 1       | 5       |
| OBJ410 Innovation objectives:improving production flexibility     | 2520      | 1676        | 1401        | 83.6 | 275     | 16.4 | 1       | 5       |
| OBJ413 Innovation objectives:improving product quality            | 2520      | 1676        | 1430        | 85.3 | 246     | 14.7 | 1       | 5       |
| OBJ414 Innovation objectives:reducing environmental damage        | 2520      | 1676        | 1395        | 83.2 | 281     | 16.8 | 1       | 5       |
| OBJ417 Innovation objectives:fulfilling regulations/standards     | 2520      | 1676        | 1417        | 84.5 | 259     | 15.5 | 1       | 5       |
| OBTPC4 IF YES, percentage obtained                                | 2520      | 1007        | 757         | 75.2 | 250     | 24.8 | 0       | 100     |
| OTHACQ41 Acquisition activity:other reasons (please specify)      | 2520      | 290         | 32          | 11.0 | 258     | 89.0 | 1       | 5       |
| OTHAPPR4 Finance from:other sources (please specify)              | 2520      | 1007        | 72          | 7.1  | 935     | 92.9 | 1       | 1       |
| OTHBOB41 Business objectives:other (please specify)               | 2520      | 2520        | 222         | 8.8  | 2298    | 91.2 | 1       | 11      |
| OTHBOB42 Business objectives:other (please specify)               | 2520      | 2520        | 10          | 0.4  | 2510    | 99.6 | 2       | 11      |
| OTHINAP4 Investment appraisal method:other (please specify)       | 2520      | 2520        | 236         | 9.4  | 2284    | 90.6 | 1       | 6       |
| OTHPART4 Partnership arrangements with others (please specify)    | 2520      | 828         | 33          | 4.0  | 795     | 96.0 | 5       | 8       |
| OUT41 Trained outside:semi-skilled & unskilled manual             | 2520      | 972         | 792         | 81.5 | 180     | 18.5 | 0       | 1       |
| OUT42 Trained outside:skilled manual                              | 2520      | 932         | 765         | 82.1 | 167     | 17.9 | 0       | 1       |
| OUT43 Trained outside:clerical & admin                            | 2520      | 1333        | 1131        | 84.8 | 202     | 15.2 | 0       | 1       |
| OUT44 Trained outside:technicians & lower prof                    | 2520      | 873         | 716         | 82.0 | 157     | 18.0 | 0       | 1       |
| OUT45 Trained outside:technologists & higher prof                 | 2520      | 731         | 593         | 81.1 | 138     | 18.9 | 0       | 1       |
| OUT46 Trained outside:managerial                                  | 2520      | 1269        | 1070        | 84.3 | 199     | 15.7 | 0       | 1       |
| OWN41 Trained by own staff:semi-skilled & unskilled manual        | 2520      | 972         | 842         | 86.6 | 130     | 13.4 | 0       | 1       |
| OWN42 Trained by own staff:skilled manual                         | 2520      | 932         | 799         | 85.7 | 133     | 14.3 | 0       | 1       |
| OWN43 Trained by own staff:clerical & admin                       | 2520      | 1333        | 1176        | 88.2 | 157     | 11.8 | 0       | 1       |
| OWN44 Trained by own staff:technicians & lower prof               | 2520      | 873         | 730         | 83.6 | 143     | 16.4 | 0       | 1       |
| OWN45 Trained by own staff:techologists & higher prof             | 2520      | 731         | 588         | 80.4 | 143     | 19.6 | 0       | 1       |
| OWN46 Trained by own staff:managerial                             | 2520      | 1269        | 1113        | 87.7 | 156     | 12.3 | 0       | 1       |
| PART41 Part time:semi-skilled & unskilled manual                  | 2520      | 2520        | 2249        | 89.2 | 271     | 10.8 | 0       | 130     |
| PART42 Part time:skilled manual                                   | 2520      | 2520        | 2219        | 88.1 | 301     | 11.9 | 0       | 80      |
| PART43 Part time:clerical & admin                                 | 2520      | 2520        | 2149        | 85.3 | 371     | 14.7 | 0       | 200     |
| PART44 Part time:technicians & lower prof                         | 2520      | 2520        | 2232        | 88.6 | 288     | 11.4 | 0       | 74      |
| PART45 Part time:technologists & higher prof                      | 2520      | 2520        | 2243        | 89.0 | 277     | 11.0 | 0       | 100     |

## Response and descriptives

| Variable name and label  | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|--|-----------|-------------|-------------|------|---------|------|---------|---------|
|  | sample    | answer      | N           | %    | N       | %    |         |         |
| PART46 Part time:managerial  | 2520      | 2520        | 2087        | 82.8 | 433     | 17.2 | 0       | 30      |
| PARTARR4 Have you entered into partnership arrangements?           | 2520      | 2520        | 2505        | 99.4 | 15      | 0.6  | 0       | 1       |
| PARTN41 Partnership arrangements with suppliers                    | 2520      | 828         | 801         | 96.7 | 27      | 3.3  | 0       | 15      |
| PARTN42 Partnership arrangements with customers                    | 2520      | 828         | 801         | 96.7 | 27      | 3.3  | 0       | 15      |
| PARTN43 Partnership arrangements with higher education             | 2520      | 828         | 801         | 96.7 | 27      | 3.3  | 0       | 15      |
| PARTN44 Partnership arrangements with firms                        | 2520      | 828         | 801         | 96.7 | 27      | 3.3  | 0       | 15      |
| PARTN45 Partnership arrangements with others                       | 2520      | 828         | 813         | 98.2 | 15      | 1.8  | 0       | 14      |
| PAYB4 IF YES, payback period (months)                              | 2520      | 1638        | 806         | 49.2 | 832     | 50.8 | 0       | 360     |
| PROF4 Pre-tax profits/losses (latest) (£th)                        | 2520      | 2520        | 1948        | 77.3 | 572     | 22.7 | -2704   | 10000   |
| PROF4A Pre-tax profits/losses (3 years ago) (£th)                  | 2520      | 2317        | 1621        | 70.0 | 696     | 30.0 | -1500   | 5600    |
| RD41 Do you do R & D continuously/occasionally/never?              | 2520      | 2520        | 2351        | 93.3 | 169     | 6.7  | 0       | 2       |
| RD42 Did you do R & D last financial year ?                        | 2520      | 2520        | 2338        | 92.8 | 182     | 7.2  | 0       | 1       |
| RD43 Number of staff in R & D part time                            | 2520      | 2520        | 2186        | 86.7 | 334     | 13.3 | 0       | 250     |
| RD44 Number of staff in R & D full time                            | 2520      | 2520        | 1884        | 74.8 | 636     | 25.2 | 0       | 125     |
| RD45 Total R & D expenditure (£th)                                 | 2520      | 2520        | 2090        | 82.9 | 430     | 17.1 | 0       | 10000   |
| RECDIF41 Current recruiting diff:semi-skilled & unskilled manual   | 2520      | 1672        | 1406        | 84.1 | 266     | 15.9 | 0       | 1       |
| RECDIF42 Current recruiting diff:skilled manual                    | 2520      | 1611        | 1348        | 83.7 | 263     | 16.3 | 0       | 1       |
| RECDIF43 Current recruiting diff:clerical & admin                  | 2520      | 2159        | 1871        | 86.7 | 288     | 13.3 | 0       | 1       |
| RECDIF44 Current recruiting diff:technicians & lower prof          | 2520      | 1445        | 1186        | 82.1 | 259     | 17.9 | 0       | 1       |
| RECDIF45 Current recruiting diff:technologists & higher prof       | 2520      | 1300        | 1046        | 80.5 | 254     | 19.5 | 0       | 1       |
| RECDIF46 Current recruiting diff:managerial                        | 2520      | 2027        | 1722        | 85.0 | 305     | 15.0 | 0       | 1       |
| SALPC41 Sales distributed across unchanged products/services       | 2520      | 2520        | 2114        | 83.9 | 406     | 16.1 | 0       | 100     |
| SALPC42 Sales distributed across improved products/services        | 2520      | 2520        | 2114        | 83.9 | 406     | 16.1 | 0       | 100     |
| SALPC43 Sales distributed across new products/services             | 2520      | 2520        | 2114        | 83.9 | 406     | 16.1 | 0       | 100     |
| SHARE41 % of shares owned by Chief Executive                       | 2520      | 1847        | 1404        | 76.0 | 443     | 24.0 | 0       | 100     |
| SHARE42 % of shares owned by whole Board of Directors              | 2520      | 1847        | 1398        | 75.7 | 449     | 24.3 | 0       | 100     |
| SHARE43 % of shares owned by largest single shareholder            | 2520      | 1847        | 1405        | 76.1 | 442     | 23.9 | 0.1     | 100     |
| SITES4 Number of sites incl HQ (latest)                            | 2520      | 2520        | 2310        | 91.7 | 210     | 8.3  | 0       | 100     |
| SITES4A Number of sites incl HQ (3 years ago)                      | 2520      | 2319        | 1857        | 80.1 | 462     | 19.9 | 0       | 55      |
| SOUGHT4 IF YES, amount sought (£th)                                | 2520      | 1007        | 830         | 82.4 | 177     | 17.6 | 0       | 20000   |
| SRC401 Internal sources:within the firm                            | 2520      | 1676        | 1404        | 83.8 | 272     | 16.2 | 1       | 5       |
| SRC402 Internal sources:within the group (if a subsid or assoc co) | 2520      | 785         | 522         | 66.5 | 263     | 33.5 | 1       | 5       |
| SRC404 External sources:suppliers of materials & components        | 2520      | 1676        | 1358        | 81.0 | 318     | 19.0 | 1       | 5       |

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |      | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|------|---------|------|---------|---------|
|   | sample    | answer      | N           | %    | N       | %    |         |         |
| SRC405 External sources:clients or customers                        | 2520      | 1676        | 1390        | 82.9 | 286     | 17.1 | 1       | 5       |
| SRC406 External sources:competitors in your line of business        | 2520      | 1676        | 1351        | 80.6 | 325     | 19.4 | 1       | 5       |
| SRC407 External sources:consultancy firms                           | 2520      | 1676        | 1343        | 80.1 | 333     | 19.9 | 1       | 5       |
| SRC408 External sources:universities/higher education               | 2520      | 1676        | 1330        | 79.4 | 346     | 20.6 | 1       | 5       |
| SRC410 External sources:patent disclosures                          | 2520      | 1676        | 1311        | 78.2 | 365     | 21.8 | 1       | 5       |
| SRC411 External sources:professional conferences/journals, meetings | 2520      | 1676        | 1353        | 80.7 | 323     | 19.3 | 1       | 5       |
| SRC412 External sources:fairs/exhibitions                           | 2520      | 1676        | 1370        | 81.7 | 306     | 18.3 | 1       | 5       |
| SRC4134 External sources:trade associations, chambers of commerce   | 2520      | 1676        | 1335        | 79.7 | 341     | 20.3 | 1       | 5       |
| SRC416 External sources:govt/priv non-profit research institutes    | 2520      | 1676        | 1321        | 78.8 | 355     | 21.2 | 1       | 5       |
| SRC417 External sources:computer-based info networks                | 2520      | 1676        | 1355        | 80.8 | 321     | 19.2 | 1       | 5       |
| SUBCON4 Subcontract work for others as % of turnover (1997)         | 2520      | 2520        | 2276        | 90.3 | 244     | 9.7  | 0       | 100     |
| SUBCON4A Subcontract work for others as % of turnover (1994)        | 2520      | 2427        | 2183        | 89.9 | 244     | 10.1 | 0       | 100     |
| TCOST4 Training costs as proportion of labour costs                 | 2520      | 1478        | 1236        | 83.6 | 242     | 16.4 | 0       | 6       |
| TOP45 Percent of sales due to top 5 customers                       | 2520      | 2520        | 2268        | 90.0 | 252     | 10.0 | 1       | 5       |
| TOTDP41 Total number of Directors/Partners                          | 2520      | 2212        | 1976        | 89.3 | 236     | 10.7 | 0       | 35      |
| TOTDP42 No. of dirs/partners with science/eng degree                | 2520      | 2212        | 1891        | 85.5 | 321     | 14.5 | 0       | 17      |
| TOTDP43 No. of dirs/partners with other degree/prof qual            | 2520      | 2212        | 1910        | 86.3 | 302     | 13.7 | 0       | 35      |
| TOTEMP41 Total no of empl:semi-skilled & unskilled manual           | 2520      | 2520        | 2354        | 93.4 | 166     | 6.6  | 0       | 400     |
| TOTEMP42 Total no of empl:skilled manual                            | 2520      | 2520        | 2355        | 93.5 | 165     | 6.5  | 0       | 340     |
| TOTEMP43 Total no of empl:clerical & admin                          | 2520      | 2520        | 2353        | 93.4 | 167     | 6.6  | 0       | 516     |
| TOTEMP44 Total no of empl:technicians & lower prof                  | 2520      | 2520        | 2356        | 93.5 | 164     | 6.5  | 0       | 170     |
| TOTEMP45 Total no of empl:techologists & higher prof                | 2520      | 2520        | 2356        | 93.5 | 164     | 6.5  | 0       | 375     |
| TOTEMP46 Total no of empl:managerial                                | 2520      | 2520        | 2352        | 93.3 | 168     | 6.7  | 0       | 213     |
| TRAIN4 Is formal training provided for any occupational groups?     | 2520      | 2520        | 2427        | 96.3 | 93      | 3.7  | 0       | 1       |
| TRN41 Training by:univ/hied institute                               | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN42 Training by:FE/technical college                              | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN43 Training by:private agency/consultant                         | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN44 Training by:Chamber of Commerce                               | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN45 Training by:voluntary organisations                           | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN46 Training by:professional associations                         | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN47 Training by:trade associations                                | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TRN48 Training by:equipment suppliers                               | 2520      | 1478        | 1303        | 88.2 | 175     | 11.8 | 0       | 1       |
| TSAT41 Satisfied with training by:univ/hied institute               | 2520      | 522         | 341         | 65.3 | 181     | 34.7 | 1       | 4       |

Response and descriptives

| Variable name and label   | Available | Eligible to | Non missing |       | Missing |      | Minimum | Maximum |
|---|-----------|-------------|-------------|-------|---------|------|---------|---------|
|   | sample    | answer      | N           | %     | N       | %    |         |         |
| TSAT42 Satisfied with training by:FE/technical college              | 2520      | 842         | 648         | 77.0  | 194     | 23.0 | 1       | 4       |
| TSAT43 Satisfied with training by:private agency/consultant         | 2520      | 1032        | 831         | 80.5  | 201     | 19.5 | 1       | 4       |
| TSAT44 Satisfied with training by:Chamber of Commerce               | 2520      | 454         | 269         | 59.3  | 185     | 40.7 | 1       | 4       |
| TSAT45 Satisfied with training by:voluntary organisations           | 2520      | 244         | 66          | 27.0  | 178     | 73.0 | 1       | 4       |
| TSAT46 Satisfied with training by:professional associations         | 2520      | 607         | 417         | 68.7  | 190     | 31.3 | 1       | 4       |
| TSAT47 Satisfied with training by:trade associations                | 2520      | 448         | 253         | 56.5  | 195     | 43.5 | 1       | 4       |
| TSAT48 Satisfied with training by:equipment suppliers               | 2520      | 833         | 631         | 75.8  | 202     | 24.2 | 1       | 4       |
| TURN4 Turnover (latest) (£th)                                       | 2520      | 2520        | 2202        | 87.4  | 318     | 12.6 | 0       | 113000  |
| TURN4A Turnover (3 years ago) (£th)                                 | 2520      | 2317        | 1786        | 77.1  | 531     | 22.9 | 0       | 90000   |
| TYPE4 What type is the largest single shareholder?                  | 2520      | 1847        | 1516        | 82.1  | 331     | 17.9 | 0       | 10      |
| UKSIC92 UKSIC92   | 2520      | 2520        | 2520        | 100.0 | 0       | 0.0  | 1.41    | 92.32   |
| URBRUR4 Location: urban/rural                                       | 2520      | 2520        | 2520        | 100.0 | 0       | 0.0  | 1       | 4       |
| VIS407 Advice source:site visit by consultants                      | 2520      | 836         | 748         | 89.5  | 88      | 10.5 | 0       | 1       |
| VIS410 Advice source:site visit by local Enterprise Agency          | 2520      | 403         | 326         | 80.9  | 77      | 19.1 | 0       | 1       |
| VIS411 Advice source:site visit by local TEC or Scottish Enterprise | 2520      | 606         | 525         | 86.6  | 81      | 13.4 | 0       | 1       |
| VIS412 Advice source:site visit by Business Link/Shop/Connect       | 2520      | 673         | 592         | 88.0  | 81      | 12.0 | 0       | 1       |
| VIS489 Advice source:site visit by CC or trade/prof assoc           | 2520      | 1067        | 868         | 81.3  | 199     | 18.7 | 0       | 1       |
| WKCH41 Change in type of workers employed:self-employed             | 2520      | 2520        | 1433        | 56.9  | 1087    | 43.1 | 1       | 3       |
| WKCH42 Change in type of workers employed:casual                    | 2520      | 2520        | 1254        | 49.8  | 1266    | 50.2 | 1       | 3       |
| WKCH43 Change in type of workers employed:on fixed-term contracts   | 2520      | 2520        | 1124        | 44.6  | 1396    | 55.4 | 1       | 3       |
| WKCH44 Change in schemes used:total quality management              | 2520      | 2520        | 1346        | 53.4  | 1174    | 46.6 | 1       | 3       |
| WKCH45 Change in schemes used:quality circles                       | 2520      | 2520        | 1095        | 43.5  | 1425    | 56.5 | 1       | 3       |
| WKCH46 Change in schemes used:job rotation/multi-skilling           | 2520      | 2520        | 1379        | 54.7  | 1141    | 45.3 | 1       | 3       |
| WKCH47 Change in schemes used:performance related pay               | 2520      | 2520        | 1401        | 55.6  | 1119    | 44.4 | 1       | 3       |
| WORK41 Type of workers employed:self-employed                       | 2520      | 2520        | 2423        | 96.2  | 97      | 3.8  | 0       | 1       |
| WORK42 Type of workers employed:casual                              | 2520      | 2520        | 2424        | 96.2  | 96      | 3.8  | 0       | 1       |
| WORK43 Type of workers employed:on fixed-term contracts             | 2520      | 2520        | 2424        | 96.2  | 96      | 3.8  | 0       | 1       |
| WORK44 Schemes used:total quality management                        | 2520      | 2520        | 2399        | 95.2  | 121     | 4.8  | 0       | 1       |
| WORK45 Schemes used:quality circles                                 | 2520      | 2520        | 2399        | 95.2  | 121     | 4.8  | 0       | 1       |
| WORK46 Schemes used:job rotation/multi-skilling                     | 2520      | 2520        | 2399        | 95.2  | 121     | 4.8  | 0       | 1       |
| WORK47 Schemes used:performance related pay                         | 2520      | 2520        | 2398        | 95.2  | 122     | 4.8  | 0       | 1       |
| YEAR4 Year your firm began trading                                  | 2520      | 2520        | 2453        | 97.3  | 67      | 2.7  | 1720    | 1997    |

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«EXEC1\_FN»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«ADDRESS\_3»  
«ADDRESS\_4»  
«TOWN» «POSTCODE»

Our Ref: «ID»\AH\AB

6 June 1997

«EXEC1\_SAL»

Thank you very much for agreeing to take part in the Cambridge University National Survey of small and medium sized businesses. I am enclosing the questionnaire which was discussed with you over the telephone.

The survey has been commissioned by the Economic and Social Research Council and is a follow up to earlier surveys conducted by the Centre for Business Research (CBR) in 1991, 1993 and 1995. The results of these surveys are widely recognised as having deepened and widened knowledge of the increasingly important small and medium sized business sector of the UK economy. The Financial Times has referred to our earlier results as a “valuable source of material for organisations which provide services to business and policy makers both in the private and public sectors”. Obtaining up to date information on the small and medium sized business sector is even more important now than when we conducted our first survey because of the continued growth of the sector. Moreover as new economic policies towards smaller and medium sized businesses are developed in the coming years it is essential that they are based on the best information available, i.e. from the firms themselves. Your participation in the current survey will play a significant part in helping that happen. We are approaching a carefully selected sample of firms and your return will be essential in maintaining the balance of firms of different sizes and industrial sectors within that sample.

I am very much aware of the many pressures upon your time and the extra work which surveys of this nature impose. I hope nonetheless that the significance of the research and of your participation in it will ensure that you complete the enclosed questionnaire. We will treat all information provided as anonymous and strictly confidential, and use it for academic research purposes only. We will also, forward to all participants an executive summary of the key findings of the Survey.

The CBR is concerned that its research is developed with a clear view of the needs of the business sector in mind and a brief outline of our overall aims are set out on the complimentary bookmark enclosed with this letter. If you have any queries about the overall nature of our research, or the specifics of the enclosed questionnaire, please feel free to contact me at the Centre.

Yours sincerely

Alan Hughes  
Director

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«EXEC1\_FN»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«ADDRESS\_3»  
«ADDRESS\_4»  
«TOWN»  
«POSTCODE»

Our Ref: «ID»\AH\AB

20 June 1997

«EXEC1\_SAL»

**Cambridge University National Survey of Small and Medium Sized Businesses**

Two weeks ago, after telephoning to seek your help with our survey, I sent to you by post a questionnaire about the state of the small and medium sized business sector in Britain.

If you have already completed and returned it to us please accept our thanks. If not, is it possible for you to complete it in the next few days? We are approaching only a small, but representative, sample of small and medium sized businesses. It is therefore extremely important that yours is included if the results of the survey are to be an accurate representation of developments in this important sector of the economy.

If by any chance you did not receive the questionnaire please let me know and I will send you another one immediately.

Thank you for your help.

Yours sincerely

Alan Hughes  
Director

If you have any queries about the nature of this survey or the completion of the questionnaire please write to the Director, ESRC Centre for Business Research, University of Cambridge, Austin Robinson Building, Sidgwick Avenue, Cambridge CB3 9DE or telephone 01223 335244.

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«TOWN»  
«POSTCODE»

Our Ref: «ID»\AH\AB

9 July 1997

«EXEC1SAL»

**Cambridge University National Survey of Small and Medium Sized Businesses**

On 6 June I sent to you by post a questionnaire about the state of the small and medium sized business sector in Britain. I am writing to you again because of the significance which each completed questionnaire has to the value of our enquiry. If the representative nature of the sample is to be maintained it is essential that as many firms which replied to our earlier surveys, as you so kindly did, do so again.

If you have already completed and returned the survey then please accept my thanks. If not could I please ask if it is possible for you to complete it in the next few days. Since it is some time since I first wrote I am enclosing a copy of my original letter and the questionnaire. Your co-operation in completing it would be greatly appreciated.

If you have any queries about the survey then please write or phone me on 01223 335244.

Yours sincerely

Alan Hughes  
**Director**

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«EXEC1\_FN»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«ADDRESS\_3»  
«ADDRESS\_4»  
«TOWN»  
«POSTCODE»

Our Ref: «ID»\AH\AB

7 July 1997

«EXEC1\_SAL»

I am writing to invite you to take part in the University of Cambridge National Survey of Small and Medium Sized Businesses.

The survey has been commissioned by the Economic and Social Research Council and is a follow up to earlier surveys conducted by the Centre for Business Research (CBR) in 1991, 1993 and 1995. The results of these surveys are widely recognised as having deepened and widened knowledge of the increasingly important small and medium sized business sector of the UK economy. The Financial Times has referred to our earlier results as a “valuable source of material for organisations which provide services to business and policy makers both in the private and public sectors”. Obtaining up to date information on the small and medium sized business sector is even more important now than when we conducted our first survey because of the continued growth of the sector. Moreover as new economic policies towards smaller and medium sized businesses are developed in the coming years it is essential that they are based on the best information available, i.e. from the firms themselves. Your participation in the current survey will play a significant part in helping that happen. We are approaching a carefully selected sample of firms and your return will be essential in maintaining the balance of firms of different sizes and industrial sectors within that sample.

I am very much aware of the many pressures upon your time and the extra work which surveys of this nature impose. I hope nonetheless that the significance of the research and of your participation in it will ensure that you complete the enclosed questionnaire. We will treat all information provided as anonymous and strictly confidential, and use it for academic research purposes only. We will also, forward to all participants an executive summary of the key findings of the Survey.

The CBR is concerned that its research is developed with a clear view of the needs of the business sector in mind and a brief outline of our overall aims are set out on the complimentary bookmark enclosed with this letter. If you have any queries about the overall nature of our research, or the specifics of the enclosed questionnaire, please feel free to contact me at the Centre.

Yours sincerely

Alan Hughes  
Director

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«EXEC1FN»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«ADDRESS\_3»  
«ADDRESS\_4»  
«TOWN»  
«POSTCODE»

Our Ref: «ID»\AH\AB

23 July 1997

«EXEC1\_SAL»

**Cambridge University National Survey of Small and Medium Sized Businesses**

On 7 July I sent to you by post a questionnaire about the state of the small and medium sized business sector in Britain. If you have already completed and returned the questionnaire please accept our thanks. If not, is it possible for you to complete and return it in the next few days?

We are approaching only a small, but representative, sample of small and medium sized businesses. It is therefore extremely important that yours is included if the results of the survey are to be an accurate representation of developments in this important sector of the economy.

If you have mislaid the questionnaire then please let me know and I will arrange for a replacement to be sent.

Yours sincerely

Alan Hughes  
**Director**

«EXEC1\_FNAM» «EXEC1\_SNAM»  
«EXEC1FN»  
«CONAME»  
«ADDRESS\_1»  
«ADDRESS\_2»  
«ADDRESS\_3»  
«ADDRESS\_4»  
«TOWN» «POSTCODE»

Our Ref: «ID»\AH\AB

6 August 1997

«EXEC1\_SAL»

**Cambridge University National Survey of Small and Medium Sized Businesses**

Four weeks ago, I sent to you by post a questionnaire about the state of the small and medium sized business sector in Britain.

I am writing to you again because of the significance each questionnaire has to the value of the inquiry. Our survey reflects the need for up-to-date first hand information on the increasingly important small and medium sized business sector. Your firm was chosen by a scientific procedure which gives each firm of a particular size a particular chance of being selected. In order for the results of the survey to be truly representative of the experience of small and medium sized businesses it is essential that each firm in the survey return their questionnaire. If you have already completed and returned it to us please accept our thanks. If not, could I please ask if it is possible for your to complete it in the next few days.

In the event that your questionnaire has been misplaced, a replacement is enclosed.

Your cooperation is greatly appreciated.

Yours sincerely

Alan Hughes  
Director

If you have any queries about the nature of this survey or the completion of the questionnaire please write to the Director, ESRC Centre for Business Research, University of Cambridge, Austin Robinson Building, Sidgwick Avenue, Cambridge CB3 9DE or telephone 01223 335244.