

WORKPLACE EMPLOYMENT RELATIONS SURVEY
TIME-SERIES DATASET

Version 2.3: February 2008

Compiled by Alex Bryson (PSI) and John Forth (NIESR)

CONTENTS

Acknowledgements	3
1. The Nature of the WERS Time-Series Dataset	4
2. Compilation of the Time Series Dataset.....	5
3. Supporting Documentation	6
4. Analysis of the Time-Series Data.....	7
Appendix A: Interpreting Get80ts.sps and Get84ts.sps	12
Appendix B: Time-Series Variable Map	15

Acknowledgements

The compilation and primary analysis of Version 1 of the WERS Time-Series Dataset (comprising the first four surveys in the WERS series) was chiefly undertaken by a team comprising Neil Millward and John Forth (National Institute of Economic and Social Research) and Alex Bryson (Policy Studies Institute). The analysis of Version 1 of the WERS Time-Series formed a key part of the research that was subsequently reported in a 300-page volume entitled *All Change at Work?*, published by Routledge in Spring 2000.

Thanks are gratefully expressed to the Leverhulme Trust, who provided generous support for the research that culminated in the writing of *All Change at Work?*, and to the ESRC who provided funding for the WERS98 Data Dissemination Service (Award No. H554255001) which finalised the dataset and managed its deposit.

Grateful thanks are also expressed to Steve Woodland who, whilst employed at the Department of Trade and Industry as part of the research team for the 1998 survey, completed much of the initial preparation of the dataset. Thanks are also due to Karen Mackinnon at the Policy Studies Institute, who assisted with the preparation of data from the 1980 and 1984 surveys, and to Simon Kirby of the WERS98 Data Dissemination Service, who assisted in the final depositing.

Version 2 of the dataset has been compiled by Alex Bryson and John Forth as part of an ESRC-funded research project to examine changes in employment relations over the period 1980-2004 (Award No. RES-000-23-1603). Version 2 therefore incorporates data from the fifth survey in the WERS series, undertaken in 2004.

WERS TIME-SERIES DATASET

1. The Nature of the WERS Time-Series Dataset

The WERS Time-Series Dataset is formed from the interviews with the **main management respondent** in each of the five cross-section surveys (1980, 1984, 1990, 1998 and 2004). The dataset contains a wide range of data items from throughout the 1998 or 2004 management questionnaires for which there are also comparable items in at least one other previous cross-section survey in the WERS series.

None of the information obtained from interviews with worker representatives or from employees' self-completion questionnaires is currently incorporated in the dataset. However, the dataset does draw upon the responses from the 1990 survey of financial managers, in which selected questions from the main interview were asked of this respondent instead of the personnel manager.¹ It also draws upon the 1991 Employers' Manpower and Skills Practices Survey (EMSPS), which returned to 88% of the workplaces in WIRS 1990 to ask additional questions about recruitment practices, training and other activities.

This time-series dataset makes the most of the continuity present within the survey series by providing direct comparisons of employment relations practice at five specific points in time over the past two decades. It is therefore possible to investigate the degree of change or stability in the incidence of specific practices over time, both in aggregate and within particular sectors of the economy or types of workplace. One can also assess the extent to which historical relationships – such as that between workplace size and union presence, for example - have changed over the period of observation.

Published analyses based on Version 1 of the dataset (incorporating the first four surveys in the WERS series) can be found in:

Millward N, Forth J and Bryson A (1999) "Changes in employment relations, 1980-1998", in M Cully, S Woodland, A O'Reilly and G Dix, *Britain at Work: As Depicted by the 1998 Workplace Employee Relations Survey*, London: Routledge.

Millward N, Bryson A and Forth J (2000) *All Change at Work? British Employment Relations 1980-1998, as portrayed by the Workplace Industrial Relations Survey series*, London: Routledge.

The second of these two publications also contains an overview of the methodology employed in each of the first four surveys in the series.

Aside from the addition of a fifth time-point, this version of the dataset (Version 2.3) is largely the same as the original version (v1.1) used in the publications cited above

¹ The purpose of this was to reduce the burden on personnel managers. In workplaces where the respondent was identified as a personnel specialist and a financial manager could also be identified, certain questions which, elsewhere, were asked of the personnel manager were instead directed to the financial manager. This occurred in 454 workplaces in total.

and the subsequent minor revision (v1.2) deposited with the UK Data Archive in May 2002. However, a small number of improvements have been made to enhance the consistency of variable definitions and to expand the range of variables incorporated within the dataset.

There are undoubtedly some consistent data items which have not been included in either version and so the dataset is not guaranteed to be complete. A full list of variables contained within the dataset is provided in Appendix B of this document.

2. Compilation of the Time Series Dataset

Taking a topic covered in the 1998 or 2004 survey, such as the presence of a multi-issue joint consultative committee (Questions: DJOINT and DISSUES), similar questions were first identified in each of the 1980, 1984 and 1990 surveys. The 1991 EMSPS also served as a source of data in instances where an issue was not covered in WIRS90 but was covered in EMSPS. If the questions that were found across the series were considered sufficiently similar to permit the compilation of a consistent measure, a data item would be derived from each of the relevant survey data files. Data items were given descriptive variable names, all beginning with the letter T, such as TJCC.

Having derived these consistent data items, workplace records from each of the five surveys were then added together to form a single time-series dataset that spanned the whole of the WERS series, as indicated in Figure 1. An additional variable named YEAR was also added to the dataset to identify the survey from which each individual observation originates.²

The main time-series dataset (WIRSTS25.*) contains 9,697 unique records, comprising all of the workplaces surveyed in the 1980, 1984 and 1990 cross-section surveys together with all 1,929 workplaces with 25 or more employees surveyed in 1998 and all 1,648 workplaces with 25 or more employees surveyed in 2004.³ A second version (WIRSTS10.*) contains 4,253 records, comprising all 2,191 workplaces surveyed in 1998 and all 2,062 workplaces with 10 or more employees surveyed in 2004. Workplaces with fewer than 5-9 employees that were interviewed as part of the 2004 survey are excluded from the deposit.

² Accordingly, an observation originating from WIRS80 has the YEAR variable coded to 1980. Note, however, that those 1,963 of the 2,061 workplaces from WIRS90 that participated in the 1991 EMSPS appear twice, once with YEAR=1990 and once with YEAR=1991. However, WIRS90 and EMSPS provide only non-overlapping data items for these cases.

³ As noted in footnote 2, the 1,963 workplaces that participated in the 1991 EMSPS appear twice, such that WIRSTS25.* contains a total of 11,390 records.

Figure 1 Illustration of the process of compiling time-series data items

WIRSTS25.sav						
Questions	SPSS Syntax files	New variable ¹	SPSS syntax file	Case ²	YEAR	TJCC
1980: Q120a	Get80ts.sps	TJCC		1	1980	1
...
1984: Q137a	Get84ts.sps	TJCC		2041	1984	2
...
1990: Q11	Get90ts.sps	TJCC		4060	1990	2
...
1991: n/a	Get91ts.sps	-	4060	1991	-	
...	
1998: Djoint Dissues	Get98ts.sps	TJCC	6121	1998	1	
...	
...	
2004: Djoint Dissues	Get04ts.sps	TJCC	8050	2004	2	
...	
...	...	...	9697	2004	1	

- 1 This field is blank in 1991 as the data for TJCC is provided by the 1990 WIRS rather than by EMSPS. In other cases (e.g. TAPPRAIS), it is the 1991 EMSPS that provides data rather than the 1990 WIRS.
- 2 The case numbers given here are for illustrative purposes only.

Many variables, such as TJCC, contain observations from each of the five surveys in the WERS series. However, a number contain observations from only three or two surveys in the series because changes in the content of the questionnaire, or in the detail of question wording and format, have prevented the compilation of a full series. TINVPLAN is one example, there being no question on the distribution of information about investment plans in the 1980 survey.

The documentation that accompanies the time-series dataset, which includes information on the source variables used in compiling each data item, is described in the next section.

3. Supporting Documentation

There are three elements to the supporting documentation that accompanies the time-series dataset:

1. A table mapping the origins of each time-series variable
2. The original survey documentation from each of the five surveys in the series
3. The SPSS syntax files used to create the dataset.

The first item is appended to this introductory note. The remaining two items are provided separately as part of the deposit.

(i) Time-series variable map

This consists of a large table listing all of the time-series variables that have been compiled, along with their source questions in each survey in the series and any notes concerning comparability over time. It can be found in Appendix B to this note.

(ii) Original survey documentation

The original questionnaires, code books and technical reports from each of the five surveys (six if one includes EMSPS) are all supplied with the time-series dataset.

(iii) SPSS syntax files

The six SPSS syntax files used in the compilation of the time-series dataset are supplied along with the data file for reference purposes. The syntax files are as follows:

Get80ts.sps	Derives time-series variables from the 1980 survey data
Get84ts.sps	Derives time-series variables from the 1984 survey data
Get90ts.sps	Derives time-series variables from the 1990 survey data
Get91ts.sps	Derives time-series variables from the 1991 EMSPS data
Get98ts.sps	Derives time-series variables from the 1998 survey data
Get04ts.sps	Derives time-series variables from the 2004 survey data
MergeTS.sps	Compiles time-series variables from all five surveys into a single data file

Users are advised to consult these syntax files in order to establish the precise means by which a particular time-series variable has been derived from the source data.

Get90ts.sps, Get98ts.sps and Get04ts.sps each draw upon the survey data files deposited with, and available, from the UK Data Archive. Consequently, users should experience no difficulties in interpreting these syntax files. However, in compiling data for the 1980 and 1984 entries in our time-series data set, we have used the original ASCII data files held by the WIRS Research Team, primarily because we were more familiar with the layout of these data files than the versions deposited at the UK Data Archive. The original ASCII data files should contain the same data as the deposited data files; however, there are some minor differences in the layout of the data which will affect users' interpretation of the syntax. These are outlined in Appendix A at the end of this document. We have also made use of a private version of the EMSPS data file which contained additional employment data over and above the version deposited with the UK Data Archive.

4. Analysis of the Time-Series Data

(i) Sampling weights

Each of the surveys in the WIRS series is based upon a stratified random sample of workplaces in existence at the time of the survey. In each case, the sample design entails that workplaces have differing probabilities of selection. To derive unbiased

estimates from the sample of workplaces, the data must therefore be weighted to restore the profile of the sample to that of the population.⁴ The time-series dataset contains a single workplace weight variable, named WEIGHT, which incorporates the workplace weights from each of the four surveys.

The dataset also contains a second weight variable, named EEWEIGHT, which may be used to obtain unbiased employee-based estimates (e.g. the proportion of employees who work in establishments with joint consultative committees).

(ii) Tabulating the data by YEAR

Once the data has been weighted, tabulating any of the time-series data items, such as TJCC, by YEAR will provide a table showing how the incidence of this particular arrangement varied among the population of workplaces over the course of the survey series. Users with access to the Tables module within SPSS will be able to employ the following syntax:

```
WEIGHT BY weight .

TABLES
  /FORMAT BLANK MISSING('.')
  /FTOTAL = Base1 'Base' Total1 'Total'
  /AUTOLABEL=ON
  /TABLES (tjcc + Base1) BY year
  /STATISTICS cpct(tjcc(F3) '': year)
    count(Base1 'Weighted') u count(Base1 'Unweighted')
  /CAPTION 'Base: All establishments' .
```

This syntax will produce the following table.

(tjcc + Base1) BY year

		Year of survey				
		1980	1984	1990	1998	2004
Any joint consultative committees?	1 Yes	34	34	29	28	24
	2 No	66	66	71	72	76
Base	Weighted	1987	2000	1999	1998	1999
	Unweighted	2031	2017	2057	1926	1645

Base: All establishments

For further guidance on the use of the SPSS Tables module, the reader is referred to Chapter 5 of Forth J and Kirby S (2000) *Guide to the Analysis of the Workplace Employee Relations Survey 1998*, published by the WERS98 Data Dissemination Service and available on-line at: <http://www.niesr.ac.uk/niesr/wers98/>.

⁴ Further details of the sampling design of each survey are provided in the Technical Reports that form part of the documentation for the time-series dataset. Interested readers are also referred to Chapter 4 of Forth J and Kirby S (2000) *Guide to the Analysis of the Workplace Employee Relations Survey 1998* and to Purdon S and Pickering K (2001) *The use of sampling weights in the analysis of the 1998 Workplace Employee Relations Survey*. Both are published by the WERS98 Data Dissemination Service and are available on-line at: <http://www.niesr.ac.uk/niesr/wers98/>.

(ii) Tabulating the data by YEAR within a further break variable

A further possibility is to tabulate a time-series data items, such as TJCC, by YEAR within a further break variable, such as TSTATUS. This particular example will provide a table showing how the incidence of joint consultative committees varied among the population of private and public sector workplaces over the course of the survey series. Users with access to the Tables module within SPSS will be able to employ the following syntax:

```
WEIGHT BY weight .

TABLES
  /FORMAT BLANK MISSING('.')
  /FTOTAL = Base1 'Base' Total1 'Total'
  /AUTOLABEL=ON
  /TABLES (tjcc + Base1) BY tstatus > year
  /STATISTICS cpct(tjcc(F3) '': tstatus year)
    count(Base1 'Weighted') u count(Base1 'Unweighted')
  /CAPTION 'Base: All establishments' .
```

This syntax will produce the first table shown on the following pages.

It should be noted that an additional prior step is required if the primary data item derives from the 1991 EMSPS (e.g. TAPPRAIS). This is because the break variable is likely to derive from the 1990 WIRS, and the two data items are thus held on separate records in the data file (although the workplaces concerned are the same). In such cases, the data for the break variable must first be copied across to the record containing the data for the primary variable. This can be done using the following syntax:

```
do if year=1990 .
+ compute serno1=(serno-9000000) .
else if year=1991 .
+ compute serno1=(serno-9100000) .
end if .
sort cases by serno1 year .

do if year=1991 and lag(year,1)=1990 and lag(serno1,1)=serno1 .
+ compute tstatus=lag(tstatus,1) .
end if .
```

Users with access to the SPSS TABLES module can then replace TJCC with TAPPRAIS in the syntax at the top of this page to produce the second table shown on the following pages.

(tjcc + Base1) BY tstatus > year

		Broad sector									
		1 Private sector					2 Public sector				
		Year of survey					Year of survey				
		1980	1984	1990	1998	2004	1980	1984	1990	1998	2004
Any joint consultative committees?	1 Yes	30	26	20	24	21	43	48	49	39	33
	2 No	70	74	80	76	79	57	52	51	61	67
Base	Weighted	1357	1267	1405	1474	1518	630	733	593	524	481
	Unweighted	1325	1188	1426	1316	1147	706	829	631	610	498

Base: All establishments

(tapprais + Base1) BY tstatus > year

		Broad sector					
		1 Private sector			2 Public sector		
		Year of survey			Year of survey		
		1991	1998	2004	1991	1998	2004
Percentage of non-managerials whose performance is formally appraised	1.00 All (100%)	62	49	67	45	41	64
	2.00 Almost all (80-99%)	6	5	2	5	7	7
	3.00 Most (60-79%)	3	2	3	4	5	5
	4.00 Around half (40-59%)	3	2	2	6	9	4
	5.00 Some (20 -39%)	3	3	3	2	7	6
	6.00 Just a few (1-19%)	3	8	5	6	10	3
	7.00 None	20	30	19	32	21	12
Base	Weighted	1089	1472	1517	501	526	480
	Unweighted	1097	1312	1145	523	611	498

Base: All establishments

Appendix A: Interpreting Get80ts.sps and Get84ts.sps

In compiling data for the 1980 and 1984 entries in our time-series data set, we have used the original ASCII data files held by the WIRS Research Team. The layout of these original ASCII data files is slightly different to the versions deposited with, and available from, the UK Data Archive. Specifically, the original ASCII data files include some multi-punched data items. This means that some data items – usually ones arising from questions that permitted multiple responses - are stored on top of one another in a single stack of codes, rather than alongside each other in adjacent columns. An example is the sources of advice listed in response to Question 20b in 1980, where up to 9 response codes are all stacked in column 29 on card 2 of the data file.

This form of data storage is utilised by the Quantum analysis package, which was used in the primary analysis of both the 1980 and 1984 surveys. However, ASCII data in this form cannot be read by SPSS – the package most familiar to WIRS users and our preferred choice for compiling the time-series data. To read multi-punched data into SPSS, one must first ‘explode’ the stacked data items: removing the codes, one-by-one, and depositing each of them into a unique, new location. To continue the example cited above, the nine response codes to Question 20b in 1980 (codes 1 to 9) were extracted from column 29 on card 2 and moved into columns 50-58 on card 60. Code 1s were deposited in column 50, code 2s in column 51 and so on.

The consequence of this procedure is that, in the FILE LIST command, multi-punched data is not read in from the card and column location given in the questionnaire, but from its new ‘exploded’ location. A record of the new card and column locations of ‘exploded’ data items is given in the following tables.

1. ‘Exploded’ multi-punched data items, 1980:

Question number	Original location		New location	
	Card	Column	Card	Columns ¹
23a	1	63	60	30-38
20b	2	29	60	10-18
21b	2	32	60	20-27
39a	4	70	60	50-58
44a	5	20	60	60-68
70a	7	07	60	70-78
75a	7	23	61	10-18
108a	8	49	60	40-49

Notes:

1. Codes are exploded into columns in ascending order, from 1 to 9, followed by 0.

2. 'Exploded' multi-punched data items, 1984:

Question number	Original location		New location	
	Card	Column	Card	Columns ¹
16a	7	11	60	30-37
17a	7	16	60	10-18
22b	7	41	60	20-23
42	11	09	62	10-14
43b (i)	11	11	63	10-19
43b (ii)	11	12	63	20-28
43b (iii)	11	13	63	30-32
48a	11	21	62	55-59
48d (i)	11	24	63	35-43
48d (ii)	11	25	63	45-53
48d (iii)	11	26	63	55-56
49a	11	27	62	60-64
49d (i)	11	30	63	60-68
49d (ii)	11	31	63	70-78
59	12	19	62	30-39
91	14	09	62	15-19
92b (i)	14	11	64	10-18
92b (ii)	14	12	64	20-28
92b (iii)	14	13	64	30-33
97a	14	21	62	65-69
97d (i)	14	24	64	35-43
97d (ii)	14	25	64	45-53
97d (iii)	14	26	64	55-56
98a	14	27	62	70-74
98d (i)	14	30	64	58-66
98d (ii)	14	31	64	67-75
98d (iii)	14	32	64	76-77
105	15	07	62	40-48
132a (i)	17	07	60	60-64
132c (i)	17	09	60	65-69
132a (ii)	17	12	60	70-74
132c (ii)	17	14	60	75-79
132a (iii)	17	17	61	10-14
132c (iii)	17	19	61	15-19
132a (iv)	17	22	61	20-24
132c (iv)	17	24	61	25-29
132a (v)	17	27	61	30-34
132c (v)	17	29	61	35-39
132a (vi)	17	32	61	40-44
132c (vi)	17	34	61	45-49
132a (vii)	17	37	61	50-54
132c (vii)	17	39	61	55-59

Continued...

Question number	Original location		New location	
	Card	Column	Card	Columns ¹
132a (viii)	17	42	61	60-64
132c (viii)	17	44	61	65-69
142	18	73	60	40-48
144b	19	21	60	50-54
157a	20	39	62	20-28
164a	21	07	62	50-54

Notes:

1. Codes are exploded into columns in ascending order, from 1 to 9, followed by 0.

Appendix B: Time-Series Variable Map

The following table lists each of the time-series variables that appear within the deposited dataset, along with their source questions in each survey in the series and any notes concerning comparability over time.

Users are advised to consult the six SPSS syntax files (provided as part of the User Guide) in order to establish the precise means by which a particular time-series variable has been derived from the source data.

Key to variable types:

C= Continuous; Cat = Categorical; D = Dichotomous

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Total employees at establishment	TALLEMPS	ZALLEMPS	ZALLEMPS	TOTEMP	TOT11	TOT7 & TOT11	C	
Total employees at establishment (banded)	TALLEMP3 TALLEMP4 TALLEMP5 TALLEMP6	Derived from TALLEMPS					Cat Cat Cat Cat	3 bands: 25-99; 100-499; 500+ 4 bands: 25-99; 100-499; 500-999; 1000+ 5 bands: 25-49; 50-99; 100-199; 200-499; 500+ 6 bands: 25-49; 50-99; 100-199; 200-
Total female employees at the establishment	TALLFEM	ZFEMFULL, ZFEMPRT	ZFEMFULL, ZFEMPRT	MANFUSK, MANFSSK, MANFSK, CLERCF, SUPVF, JRTECHF, SRTECHF, MANAGEF	TOT13, TOT16, TOT19, TOT22, TOT25, TOT28, TOT31 & TOT34	TOT3 & TOT6	C	Relatively high %s missing in 1984 (8%) and 1990 (13%). Other years around 2%.
Female employees as a percentage of workforce	TFEMPC	Derived from TALLFEM and TALLEMPS					C	See comments on TALLFEM Range: 0-100%

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Female employees as a percentage of workforce (banded)	TFEMPC12 TFEMPC3 TFEMPC3B TFEMPC5B	Derived from TFEMPC					Cat Cat Cat Cat	See comments on TALLFEM 10% bands of TFEMPC, plus 0% and 100% 3 bands: 0-30%; 31-70%; 71%+ 3 bands: 0-24%; 25-74%; 75%+ 5 bands: 0-9; 10-24; 25-74; 75-89;
Evaluation of management-employee relations	TSTATIR	MRELATE	MRELATE	P63	169	146	Cat	1980, 1984: Coded to 7-point scale from verbatim 1990: 7 point scale. Codes 2&3, 5&6 combined to match 1998 1998, 2004: 5-point scale
Any industrial action (from specified list) in past 12 months (excluding lock-outs)	TANYACT	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M2 M4	147A, B	127A 128A	D	Separate recording for manual and non-manual workers abandoned in 1998
Any strike action in past 12 months	TSTRIKE	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M4	147A, B	127A 128A	D	See comments for TANYACT
Any non-strike action in past 12 months (excluding lock-outs)	TOTHACT	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M4	147A, B	127A 128A	D	See comments for TANYACT
Single establishment or part of multi-establishment organisation	TSINGLE	ASINGLE	ASINGLE	A4	3A	3	D	1998, 2004: 'Sole UK' coded as 'Multi'

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Single establishment, branch office of multi or head office of multi.	TSINGLE2	Derived from TSINGLE and THO					Cat	See notes for TSINGLE and THO.
Formal status of establishment	TSTATUS	ASTATUS	ASTATUS	A3	2	2A	D	Private sector; public sector
Formal status of establishment	TSTATUS2	Derived from TSTATUS and TTRADING					Cat	Private sector; public sector trading; other public sector. See comments for TTRADING.
Whether UK or foreign owned organisation (3 categories) (where TSTATUS=1)	TUKFO	ACONTROL	ACONTROL	P9 F-A11	4D	5	Cat	1980: No 50/50 UK/FO category (code 2 on TUKFO left blank) 1984: not asked for singles, but all assumed to be UK owned 1990: Uses Financial Manager's responses where available 1998, 2004: Collapses codes (1,2=1) (3=2) (4,5=3) and codes all singles to UK owned for consistency with 1984.
Whether UK or foreign owned organisation (2 categories) (where TSTATUS=1)	TUKFO2	Derived from TUKFO					D	Collapses TUKFO into 2 categories (UK and 50/50; Foreign-owned)
Whether part of a UK multi-national (i.e. organisation owns units outside UK) (where TSTATUS=1, TSINGLE=2 and TUKFO=1)	TMULTNAT	ASUBSID	ASUBSID	P10 FA-12	X	X	D	1990: Uses Financial Manager's responses where available
Whether part of a UK multi-national (i.e. organisation owns units outside UK) (where TSTATUS=1 and TUKFO=1)	TMNC	Derived from TSTATUS, TSINGLE, TUKFO and TMULTNAT					Cat	Differs from TMULTNAT in that singles are explicitly coded on this variable. See notes on TSTATUS, TSINGLE, TUKFO and TMULTNAT

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether UK/foreign-owned and, if UK-owned, whether part of multi-national.	TINTNAT	Derived from TSTATUS, TSINGLE, TUKFO and TMULTNAT					Cat	Combines data on ownership and internationalisation. See notes on TSTATUS, TSINGLE, TUKFO and TMULTNAT
Organisation's UK employment size (7 bands)	TORGSIZE	AUKTOT	AUKTOT	P13	6B	4D	Cat	Collapses data into bands used in 1980: 25-99; 100-499; 500-999; 1000-1999; 2000-4999; 5000-9999; 10000+. 1980: bands include first value of next (i.e. 1-100 not 1-99 as in other years). 1990: Trading sector only; Financial Manager responses and some others missing. Some imputed using imputations derived by Alex Bryson & Neil Millward in earlier work. 2004: Some imputations from IDBR.
Organisation's UK employment size (banded)	TORGSIZ3 TORGSIZ4 TORGSZ4B	Derived from TORGSIZE					Cat Cat Cat	3 bands: 25-499; 500-9999; 10000+0000 4 bands: 25-499; 500-1999; 2000-9999; 10000+ 4 bands: 25-99; 100-999; 1000-9999; 10000+ See comments for TORGSIZE.
Whether part of the trading sector [i.e. private sector plus trading public corporations]	TTRADING	ASTATUS1	ASTATUS, ASIC_FIN	A3	2	2A	D	1998: Identifies trading public corporations through status indicator and detailed SIC(92) codes.
Whether any Joint Consultative Committees (JCCs) at the establishment	TJCC	DJOINT DISSUES	DJOINT DISSUES	L1	137A 120A	120A	D	
Frequency of JCC meetings (where TJCC=1)	TJCCFREQ	DMEET	DMEET	L8	138F	121A	Cat	1998: committee covering widest range of issues 1990: most important committee
Functioning JCC (meets at least every quarter)	TJCCF	Derived from TJCC and TJCCFREQ					D	See notes for TJCC and TJCCFREQ
Influence of JCC (where TJCC=1)	TJCCINF	DINFLUEN	DINFLUEN	L11	X	X	Cat	See notes for TJCC.
Any JCC or higher level JCC	TANYJCC1	Derived from TJCC and TJCCHI					D	See notes for TJCC and TJCCHI
Any functioning JCC or higher level JCC	TANYJCC2	Derived from TJCCF and TJCCHI					D	See notes for TJCCF and TJCCHI

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether JCC worker representative(s) chosen by trade union (where TANYMEM=1 and TJCC=1)	TJCCTU	DSELECT1 DSELECT2 DSELECT3 DSELECT4	DAPPOIN1 DAPPOIN5	L7A	138E	121D	D	Focusing on method of election (cf. TJCCTU) 2004: DSELECT is a less direct question than those available in earlier years, as routed from question about elections
Whether JCC includes union representatives or appointees (where TANYMEM=1 and TJCC=1)	TJCCTU2	DSELECT EJCC	DAPPOIN DUNION ECHOSEN ESITON	X	X	X	D	Focusing on presence of union representatives on JCC (cf TJCCTU)
Whether functioning JCC worker representative chosen by trade union (where TANYMEM=1 and TJCCF=1)	TJCCFTU	Derived from TJCCF and TJCCTU						See notes for TJCCF and TJCCTU
Any JCC at higher level in organisation? (where TSINGLE=2 and THO>1)	TJCCHI	DHIGHLEV	DHIGHLEV	L13	139B	X	D	
Number of JCCs (where TJCC=1)	TJCCNUM	DHOWMANY	DHOWMANY	L3	138A	120A	C	1998, 2004: if more than one, DK whether all are multi-topic committees
Number of JCCs (banded: 1, 2 3, 4 or more) (where TJCC=1)	TJCCNU4	Derived from TJCCNUM					Cat	See notes for TJCCNUM
Management distributes information on investment plans to employees or their representatives	TINVPLAN	DINVPLAN	DINVPLAN	L22A	143A	X	D	1998, 2004: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Management distributes information on the financial position of the establishment to employees or their representatives	TFINANCE	DFINANCE	DFINANCE	L22B	143A	X	D	1998, 2004: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Management distributes information on the financial position of the organisation to employees or their representatives (where TSINGLE=2)	TORGFIN	DWHOLEFI	DWHOLEFI	L22C	143A	X	D	1998, 2004: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Management distributes information on staffing or manpower plans to employees or their representatives	TSTAFFIN	DSTAFFIN	DSTAFFIN	L20C	143A	X	D	1998, 2004: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Scope of information provision (i.e. number of areas covered from: investment, finance and staffing).	TINFO	DINVPLAN DFINANCE DWHOLEFI DSTAFFIN	DINVPLAN DFINANCE DWHOLEFI DSTAFFIN	L22A L22B L22C L20C	143A	X	Cat	See comments relating to TINVPLAN, TFINANCE, TORGFIN and TSTAFFIN.
Management holds regular meetings between senior managers and all sections of the workforce	TCONSALL	X	DCONSUL1-6	L19	142	X	D	1998: Not restricted to senior managers. Phrase "...as a matter of policy" also dropped. And no mention of "at least once a year". Also see TCONSALL1-3
Meetings between senior managers and all sections of the workforce at least once a fortnight	TCONSALL1	DMEETN DMEETING	X	X	X	X	D	2004: Contrary to 1998, does mention 'senior'. But does not use word 'regular', instead asking about frequency.
Meetings between senior managers and all sections of the workforce at least once a month	TCONSALL2	DMEETN DMEETING	X	X	X	X	D	TVOICE variables use this to proxy TCONSALL for 2004
Meetings between senior managers and all sections of the workforce at least once every three months	TCONSALL3	DMEETN DMEETING	X	X	X	X	D	
Problem-solving groups	TCIRCLES	DCIRCLES	DCIRCLES	L19	X	X	D	1990: Restricted to groups that meet at least once a month. 2004: Wording altered to focus on groups of non-managerial employees (see Kersley et al 2006: 94 for discussion)

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Briefing groups (regular meetings that occur at least monthly between line managers and the workers for whom they are responsible)	TBRIEF	DBRIEF DBRIEFN	DBRIEF DBRIEFU DBRIEFN	L19	142	X	D	1998: refers to “a system of briefings for... a work group/section/team” and does not specify who should deliver the briefing Other years refer to meetings between junior / line managers or supervisors and the workers for whom they are responsible. 1990 and 2004 mention that these are sometimes known as ‘briefing groups or team briefings’
Management makes systematic use of management chain for communication	TCHAIN	DCONSUL1-8	DCONSUL1-6	L19	142	X	D	2004 and 1998: Phrase “..as a matter of policy” dropped.
Management makes use of newsletters	TNEWS	DCONSUL1-8	DCONSUL1-6	L19	142	X	D	
Management makes use of suggestion schemes	TSUGGEST	DCONSUL1-8	DCONSUL1-6 DOTHWAY	L19	142	X	D	2004 and 1998: Phrase “..as a matter of policy” dropped. 1998 covers suggestion schemes from two angles (DOTHWAY* and DCONSUL*) whereas other years use a single question
Main industrial activity of the establishment (1-digit SIC80: Division level)	TSIC80B	ASIC80	ASIC_FIN	A1	1A	1A	Cat	1998: recoded from SIC92 2004: see TSIC80
Broad industry and status	TSECTOR3	Derived from TSTATUS and TSICSUM					Cat	Private manufacturing; Private services; Public sector
Detailed industry and status (15 categories)	TSECT15	ASIC80 ASIC92	ASTATUS, ASIC_FIN	A3, A1	1A, 2	1A, 2A	Cat	1980-90: Derived from SIC80 coding 1998,2004: Derived from SIC92 coding
Main industrial activity of the establishment (4-digit SIC80)	TSIC80	ASIC80	X	A1	1A	1A	Cat	2004: recoded by NatCen from SIC03 using look-up tables
Broad industrial activity (manufacturing; services)	TSICSUM	Derived from TSIC80B					D	Manufacturing & extraction taken as SIC80 classes 2 to 4 inclusive. See note for TSIC80B.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Total non-manual employees	TALLNM	ZMNG_TOT ZPRO_TOT ZTEC_TOT ZADM_TOT ZSAL_TOT	ZMNG_TOT ZPRO_TOT ZTEC_TOT ZCLE_TOT ZSAL_TOT	TOTNMAN	TOT8	TOT11	C	1998, 2004: Set to missing where occ totals don't sum to zallemps. 3% missing in 1998; 6% in 2004. 1980-1990: WIRS-specific occupational classification 1998: Defined as SOC(1990) groups 1-4 & 7. 1998: Defined as SOC(2000) groups 1-4 & 7.
Non-manual employees as a percentage of the total workforce	TNMPC	Derived from TALLNM and TALLEMPS					C	See comment for TALLNM.
Non-manual employees as a percentage of the total workforce (banded)	TNMPC12 TNMPC3	Derived from TNMPC					Cat Cat	10% bands of TNMPC, plus 0% and 100%. 3 bands: 0-24%; 25-74%; 75%+.
Total males in full time employment	TFTMALE	ZMALFULL	ZMALFULL	MANFTM NMANFTM	TOT4 & TOT9	TOT2	C	
Total female in full time employment	TFTFEM	ZFEMFULL	ZFEMFULL	MANFTF NMANFTF	TOT5 & TOT10	TOT3	C	
Total full-time employees	TALLFT	ZALLFTE	ZMALFULL ZFEMFULL	MANFT NMANFT	TOT4, TOT5, TOT9 & TOT 10	TOT1	C	
Total part-time employees	TALLPT	ZALLPTE	ZMALPRT ZFEMPRT	MANPT NMANPT	TOT2 & TOT7	TOT4	C	
Part-time employees as a percentage of the total workforce	TPTPC	Derived from TALLPT and TALLEMPS					C	
Part-time employees as a percentage of the total workforce (banded)	TPTPC12 TPTPC3 TPTPC3B TPTPC4B	Derived from TPTPC					Cat Cat Cat Cat	10% bands of TPTPC, plus 0% and 100% 3 bands: 0-5%; 6-40%; 41%+ 3 bands: 0; 1-24%; 25%+ 5 bands: 0; 10-24; 25-49; 50%+
Employees from ethnic minorities as a percentage of the total workforce	TEMPC	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	X	X	X	C	
Employees from ethnic minorities as a percentage of the total workforce (banded)	TEMPC5	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	N27, N28	Q157	Q117	Cat	Changes in question wording. 1998: question included on EPQ 1980: bands are 5-9; 10-19 rather than 5-10; 11-20

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Percentage of managers that are female	TMGRFPC	ZMNG_TOT ZMNG_FFT ZMNG_FPT	ZMNG_TOT ZMNG_FFT ZMNG_FPT	MANAGEF MANAGET	TOT34 TOT35	X	C	1984, 1990 use WIRS-specific occupational classification, whilst 1998 uses SOC90 and 2004 uses SOC2003 - not thought to impair comparability on this variable
Measure of vertical segregation (Women as % of managers / Women as % of all employees)	TVERSEG	Derived from TMGRFPC and TFEMPC					C	See comments for TMGRFPC and TFEMPC.
Measures of vertical segregation (grouped)	TVERSEG5	Derived from TVERSEG					Cat	5 categories: No female mgrs; Women under-represented; Equality; Women over-represented; No male managers 3 categories: Women under-represented; Equality; Women over-represented
	TVERSEG3						Cat	
Region	TREGION5	X	X	REGION	REGION	REGION LOCALA	Cat	1980: use local authority codes to tidy up what appear to be errors in coding of region for Scotland and the North
Region	TREGION3	GOR	X	X	X	X	Cat	
Region	TREGION4	SSR	X	X	X	X	Cat	
Region	TREGION2	X	SSR	X	X	X	Cat	
Region	TREGION1	X	GOR	X	X	X	Cat	
Region	TREGSSR	Derived from SSR					Cat	Derivation in MergeTS.sps reconciles different labelling of region in different data sets
Region	TREGGOR	Derived from GOR					Cat	See note on TREGSSR
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+; 11+ but DK exactly)	TAGE	AHOWLONG AHOWEST	AHOWLONG APREV5YR	X	1C	1B	Cat	1980, 1984: years engaged in main activity 1998: years at current and previous address. Not asked if 11+ years old workplaces and had a previous address. 2004: time establishment 'has been in operation' including 'time spent at other addresses'.
Age of workplace including previous addresses (0-4; 5-9; 10+)	TAGE2	Recode of TAGE					Cat	See notes on TAGE

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+)	TAGE3	Recode of TAGE					Cat	As per TAGE but moves the 1998 filter problem cases to code 3, ie. conservatively assumes that their age at current establishment equals total age inc. moves
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+)	TAGE4	Recode of TAGE					Cat	As per TAGE but moves the 1998 filter problem cases to code 4 on assumption that their total age including missing APREV5YR is 25+ years instead of the 10-24 years recorded for time at their current workplace
Age of workplace including previous addresses ((0-4; 5-9; 10-14; 15-20; 21-24; 25+ years)	TAGE5	AHOWLONG AHOWEST	X	X	X	X	Cat	Used for production of TSETUP in MergeTS.sps
Number of years operating at current address (0-4; 5-9; 10-20; 21+)	TTIMHERE	X	AHOWLONG	A21	X	X	Cat	2004: does not so distinguish time at current and previous addresses
Number of years operating at current address (0; 1; 2; 3; 4; 5-9; 10-20; 21+)	TTIMHER7	X	AHOWLONG	A21	X	X	Cat	
Whether always been at current address (where TAGE<=9)	TADDRESS	X	ADDRESS2	A22	X	X	D	Restricted to TAGE<=9 to promote comparability.
Status of site before arrival (where TADDRESS=2)	TPREV	X	APREV	A25	X	X	Cat	Restricted to TADDRESS=2 to promote comparability.
Decade establishment born (before 1980s, 1980s, 1990s)	TSETUP98	X	AHOWLONG ADDRESS2 APREV ALONGDEV	X	X	X	Cat	Needed to obtain TSETUP for 1998
Decade workplace born including moves (except in 1990) (before 1980s; 1980s; 1990s; 2000s)	TSETUP	Derived from TAGE in 1984, TTIMHERE in 1990, TSETUP98 in 1998 and TAGE5 in 2004					Cat	Set up date includes location moves except in 1990 don't have information on time in previous addresses. BE CAUTIOUS ABOUT INFERENCES ON 1990 DATA.
Total employees at establishment 12 months ago	TEMPIAGO	ZEMPIAGO	ZEMPIAGO	TOTEMP1 Y	TOT36	TOT19	C	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Total employees at establishment 5 years ago	TEMP5AGO	X	ZEMP5AGO	X	X	TOT20	C	
Total employees at establishment 6 years ago	TEMP6AGO	ZEMP6AGO	X	X	X	X	C	
Number of establishments in organisation in the UK	TESTNUM	ASINGLE AESTNUM	AESTNUM	P12	6A	4C	Cat	In 1980 and 1998, question focuses on 'the organisation'; in 1984 and 2004, focuses on the 'ultimate controlling company'; in 1990 focuses on the 'ultimate controlling company in the UK'. 1984: 500-996, 997+ rather than 500-999, 1000+ 1990: See comment on TORGSIZE. Multis for whom P12=1 coded to 1 for consistency with 1998.
Whether establishment is a head office, administrative office or neither (where TSINGLE=2)	THO	AHEADOFF AHEADOF2 ASINGLE KACTIVM1	ACONHEAD AHEADOFF KACTIVI	A5	3B	4B	D	1980: Administrative offices not distinguished from other offices 1980, 1998: questions do not mention 'goods and services'
Respondent's gender	TSEX	BSEX	BSEX	X	X	Q11D	D	
Respondent's job title	TTITLE	BTITLE	BTITLE	A6A A6B	16A	11A	Cat	1998 and 2004: Verbatim responses to BTITLE manually recoded to produce a code frame consistent across years. Does not match BTITLE2 - the code frame used for the cross-section.
Whether personnel specialist (as designated by job title)	TSPECIAL	BTITLE	BTITLE	A6A, A6B	16A	11A	D	See TTITLE. Definition of "specialist" : personnel, human/manpower resources, or industrial, employee or staff relations in job title.
Human Resources Manager	THR	BTITLO2004	BTITLE2	X	X	X	D	See TTITLE.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Manager's personnel and industrial relations responsibilities:								
Pay and conditions	TYOURJ01	BYOURJ01-13	BYOURJ01-10	A11_D1	17A_D1	13A_D1	D	1980: tasks that form part of respondent's job 1984-04: tasks that form part of respondent's job, or job of someone responsible to them. 2004: 'Pay and conditions' constructed by grouping 'rates of pay', 'working hours', holiday entitlements' and 'pension entitlements'.
Recruitment and selection	TYOURJ02	BYOURJ01-13	BYOURJ01-10	A11_D3	17A_D3	13A_D3	D	
Training	TYOURJ03	BYOURJ01-13	BYOURJ01-10	A11_D4	17A_D4	13A_D4	D	
Systems of payment	TYOURJ04	X	BYOURJ01-10	A11_D5	17A_D5	13A_D5	D	
Staffing/manpower plan	TYOURJ05	BYOURJ01-13	BYOURJ01-10	A11_D8	17A_D8	X	D	
Handling grievances	TYOURJ06	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Equal opportunities	TYOURJ07	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Health and safety	TYOURJ08	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Performance appraisals	TYOURJ09	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Whether responsible for personnel or industrial relations matters at establishment	TMANAGE	BUMANAGE	BUMANAGE	A10	X	X	D	1990: Ask if there is someone more senior. 1998, 2004: Asks if respondent has prime responsibility.
Time spent on employee relations issues	TERTIME	BPROPORT	BPROPORT	A13A	17B	X	C	
Time spent on employee relations issues (Less than 25%; 25% or more)	TERTIMEA	BPROPORT	BPROPORT	A13B	17B	X	Cat	1980: asks whether respondent spends "a major part of their time" on employee relations issues. Not directly comparable, so 1980 data coded to separate variable, TERTIMEB (1=major part of time).
	TERTIMEB	X	X	X	X	13B	D	
Experience in job	TLENGTH	BLENGTH	BLENGTH	A9	16C	X	Cat	1980: continuous to 7 years, with 8 year ceiling. TLENGTH is a 6-category variable. TLENGTHB is a 3-way categorical variable to allow comparability with W80.
	TLENGTHB	BLENGTH	BLENGTH	A9	16C	11B	Cat	
Years experience in personnel matters (where TERTIMEA=2)	TSERVICE	BSERVICE	BSERVICE	A17	17D	X	Cat.	TERTIMEA filter imposed to promote consistency between years.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Years experience in personnel matters (Two years or more; Less than two years) (1980: where TERTIMEB=1; 1984-1998: where TERTIMEA=2)	TSERVICB	BSERVICE	BSERVICE	A17	17D	16C	D	TSERVICB is a 2-way categorical variable to allow comparability with 1980. TERTIMEA/TERTIMEB filter imposed to promote consistency between years.
Whether any formal qualifications in personnel management (1980: where TERTIMEB=1; 1984-2004: where TERTIMEA=2)	THAVQUAL	BHAVQUAL	BHAVQUAL	A18	17E	16A	D	1980, 1998: only asked if ER is a major part of job. TERTIMEA/TERTIMEB filter imposed to promote consistency between years, but large number of missing values in 1998.
Whether any personnel or employee relations staff	TASSIST	BASSIST	BASSIST	A20	19	15A	D	1998: simultaneously asks any/none and for number 1998, 2004 includes 'secretarial and clerical staff', whereas 1980-90 do not. 1980: only asked if respondent spends major part of time on ER/personnel. Filter <u>not</u> imposed on other years' data in TASSIST.
Respondent's contact with ER specialist at higher level in the organisation (where TSINGLE=2 and THO=2/3)	TSEPAR	BSEPAR	BSEPAR	B2	21B	17	D	1984: only asked of personnel specialists. This filter <u>not</u> imposed on other years' data in TSEPAR. 1980: makes no reference to "separate establishment". 1980 also refers to "reporting" to a higher manager, whereas 1984 and 1990 refer to "contact", while 1998 and 2004 ask if such a person exists.
Employee relations representation on board of directors (where TSTATUS=1, TSINGLE=2 and TUKFO=1/2)	TBOARD	BBOARD	BBOARD	B10A, B10B	22B	18B	D	Note if part of a larger private sector organisation but system missing this is because either foreign owned/controlled or DK/NA foreign ownership 1998 only refers to "Board of Directors", rather than main/top governing body.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether member of Employers' Association	TEASS	BMEMBER1 – BMEMBER5	BMEMBER1-BMEMBER4	B23	23A	21A	D	1998 and 2004: membership of any employers association. 1980-90: membership of an EA that negotiates pay or conditions for its members. 1990: only asked in trading sector. This filter <u>not</u> imposed on other years' data in TEASS.
Whether member of Trade Association	TTASS	BMEMBER1 – BMEMBER5	BMEMBER1-BMEMBER4	X	X	X	X	
Whether member of Chamber of Commerce	TCHCOM	BMEMBER1 – BMEMBER5	BMEMBER1-BMEMBER4	X	X	X	X	
Whether member of Federation of Small Businesses	TFEDSB	BMEMBER1 – BMEMBER5	BMEMBER1-BMEMBER4	X	X	X	X	
Whether member of some other similar employers' group	TOTHGP	BMEMBER1 – BMEMBER5	BMEMBER1-BMEMBER4	X	X	X	X	
Whether management sought employee relations advice from: ACAS/Other gov. agency Management consultants External lawyer External accountant	TADVICE1 TADVICE2 TADVICE3 TADVICE4	BADVIC01-BADVICE3	BADVICE1-8	B18_D1 B18_D2 B18_D5 B18_D6	X X X X	Q20B_D1, Q20B_D15 Q20B_D17 Q20B_D2 Q20B_D6,7 Q20B_D8	D D D D	1980 refers to outside the establishment. 1990 refers to outside the organisation. 1998 code frame makes clear it's outside the organisation. 2004: refers to 'information or advice' and show-card listed more govt options than in 1998
Whether any union members among employees at establishment	TANYMEM	EANYEMP	EANYEMP	C2	25A, 74A	22, 51	D	
Number of union members at the workplace (Version A)	TNUMMEMA	EANYEMP ZUNIMEM ZUNIPC	EANYEMP, ZTU_MEM, ZTU_PC	TOTEMP UN	26C, 26E, 75C, 75E	23C, 54A, 54B	C	1980: Full-time employees only (won't always match TANYMEM)
Number of union members at the workplace (Version B)	TNUMMEMB	Derived from TNUMMEMA					C	Recodes cases on TNUMMEMA where DK if any members to 0. See notes for TNUMMEMA.
Union density at the workplace (Version A)	TUDENSA	Derived from TNUMMEMA and TALLEMPS (in annual syntax files, rather than in MergeTS.sps)					C	See notes for TNUMMEMA.
Union density at the workplace (Version A – banded)	TUDENS6A	Derived from TUDENSA.					Cat	0% plus 6 bands: 1-24%; 25-49%; 50-74%; 75-89%; 90-99%; 100% See notes for TNUMMEMA.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Union density at the workplace (Version B)	TUDENSB	Derived from TNUMMEMB and TALLEMPS					C	See notes for TNUMMEMB.
Union density at the workplace (Version B – banded)	TUDENS6B	Derived from TUDENSB.					Cat	0% plus 6 bands: 1-24%; 25-49%; 50-74%; 75-89%; 90-99%; 100% See notes for TNUMMEMB.
Total number of unions present (where TANYMEM=1)	TUNINUM	EUNIONUM EUNIONCK	EUNIONUM	C9D	X	X	C	1980, 1984: possible double-counting between unions mentioned for manuals and those mentioned for non-manuals precludes derivation of a single sum
Number of unions present (banded: 1,2,3,4,5,6+) (where TANYMEM=1)	TUNINUM6	Derived from TUNINUM					Cat	See notes on TUNINUM
Total number of recognised unions (where TANYMEM=1)	TTOTREC	ETOTREC EUNIONUM	ETOTREC, EUNIONUM	TOTRECUN	X	X	C	2004: ETOTREC converted to XTOTREC in recogfix syntax 1980, 1984: possible double-counting between unions mentioned for manuals and those mentioned for non-manuals precludes derivation of a single sum
Number of recognised unions (1,2,3+) (where TRECOG=1)	TTOTREC3	Derived from TRECOG and TTOTREC					Cat	
Whether any union is recognised for collective bargaining (where TANYMEM=1)	TRECOG	ETOTREC, EUNIONUM	ETOTREC, EUNIONUM	TOTRECUN	27A, 76A	24A, 53A	Cat	Cases where DK/NA if members present coded to 'No members'. Cases where members present but DK/NA if recognition coded to "No recognition but members".
Whether any union is recognised for collective bargaining (where TANYMEM=1)	TRECOG2	Derived from TRECOG					D	Simple dichotomy: recognition; no recognition.
Whether full or partial recognition	TRECFP2	Derived from TRECOG and TJCCTU					Cat	
Number of employees covered by collective bargaining	TALLCOV	FSOC1-FSOC9	FSOC1- FSOC9	Derived from TCOVPC	34A, TOT3, 83A, TOT8	X	C	2004: uses edited FSOC and LOG settlement data from "Recoding FSOC to account for PRBs in England and Wales.sps" 1998: Uses edited FSOC and LOG data from Fsocfix.sps

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Percentage of employees covered by collective bargaining	TCOVPC	Derived from TALLCOV & TALLEMPS	Derived from TALLCOV & TALLEMPS	PTOTEMPC (from C19)	Derived from TALLCOV & TALLEMPS	X	C	See comments on TALLCOV.
Percentage of employees covered by collective bargaining (banded)	TCOVPC6	Derived in same vein as TCOVPC (in annual syntax files, rather than in MergeTS.sps, with exception of TCOVPC2, TCOVPC4)					Cat	6 bands: 100%; 80-99; 50-79; 20-49; 1-19; None
	TCOVPC7						Cat	7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None
	TCOVPC4						Cat	4 bands: 100; 50-99; 1-49; None
	TCOVPC3						Cat	3 bands: 50-100%; 1-49%; None
	TCOVPC2						Cat	2 bands: 50-100%; None-49%
Whether any employees at establishment covered by collective bargaining	TANYCOV	FSOC1-FSOC9	FSOC1-FSOC9	PTOTEMPC (from C19)	Derived from TALLCOV & TALLEMPS	X	D	2004 and 1998: has more valid cases than TCOVPC* variables because syntax recovers some coverage cases with only partial FSOC data
Percentage of employees covered by collective bargaining (banded)	TFCOVER	FCOVER	FCOVER	X	X	X	Cat	7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None FCOVER does not correspond with FSOC information in some cases (esp in 1998): not to be used as sole indicator of collective bargaining. Use TCOVPC in preference as main indicator.
Percentage of employees covered by collective bargaining (banded)	TFCOVPC7	FSOC1-FSOC9 FCOVER	FSOC1-FSOC9 FCOVER	X	X	X	Cat	7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None 6 bands: 100%; 80-99; 50-79; 20-49; 1-19; None Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER not consistent in 1998 and 2004, so use TCOVPC7 and TCOVPC6 in preference as main indicators.
	TFCOVPC6							

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether any employees at establishment covered by collective bargaining	TFCOVDUM	FSOC1-FSOC9 FCOVER	FSOC1-FSOC9 FCOVER	X	X	X	D	Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER not consistent in 1998 and 2004, so use TANYCOV in preference as main indicator.
Whether any employees at establishment covered by collective bargaining	TFCOVDUM2	FSOC1-FSOC9 FCOVER EPAYA	FSOC1-FSOC9 FCOVER EPAYA	X	X	X	D	Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER and EPAYA not consistent in 1998 and 2004, so use TANYCOV in preference as main indicator.
Any multi-employer bargaining (where TRECOG=1)	TNATBARG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	1980: Missing where more than 2 bargaining units of the same type and no m/e bargaining in surveyed units. 1984, 1990: as above, but only one unit of each type surveyed. 1980-90: uses data on most important level of negotiations, since 1998 questions only permit one response. 1998-2004: Uses edited FSOC data
Any multi-site bargaining (where TRECOG=1)	TORGBARG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	See comments for TNATBARG.
Any workplace level bargaining (where TRECOG=1)	TESTBARG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	See comments for TNATBARG.
Pay of uncovered workers set at higher level in organisation (where TCOVPC4=2,3 or 4)	TEXTSET	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	1980: Missing due to absence of coverage data (TCOVPC4). 1998-2004: Uses edited FSOC data
Pay of uncovered workers set at higher level in organisation (where TCOVPC4=2,3 or 4)	TORGSET	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	See comments for TEXTSET

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Pay of uncovered workers set at workplace (where TCOVPC4=2,3 or 4)	TESTSET	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	See comments for TEXTSET
Locus of decision making within main pay determination arrangement (17 categories)	TPAYDET	Derived from TNATBARG to TESTSET (in annual syntax files, rather than in MergeTS.sps)					Cat	Categories separated according to values of TCOVPC3 1998: 44 cases coded to 6 where there is reported to be coverage but no recognition (so TNATBARG – TESTBARG missing)
Union membership arrangements (where TRECOG=1)	TCLSHOP	X	EKEEPJOB EOUGHTO	E2 G2	52A 101A	31A 62A	Cat	2004: no longer asked W98: Two distinct questions W80-80: joining manual and non-manual data W80: No code 2 possible “Strong recommendation”: coded to 3 “Neither”. <i>Wording:</i> W80: arrangements for “...any workers” W84,90: for “...any groups of workers” W98: for “...any employees”
Pre-entry closed shop (where TCLSHOP=1)	TPREENT	X	EHAVETO	E6 G6	54A 103A	31B, 32A 62B, 63A	D	2004: no longer asked
Whether managers try to find out if potential recruits are union members (where TANYMEM=2)	TCHECKS1	CCHECKS	ECHECKS	C8	X	X	Cat	2004: Question no longer located in the section on union membership
Whether managers try to find out if potential recruits are union members	TCHECKS2	CCHECKS	ECHECKS	X	X	X	Cat	1990: only asked where no union members. See TCHECKS1.
Any check-off system present (where TANYMEM=1)	TCHECKOF	EDEDUCT	EDEDUCT	C44	39	37B 68B	D	1980: Only asked where recognised unions. This filter <u>not</u> imposed on other years’ data in TCHECKOF.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any reps of recognised unions (where TRECOC=1)	TUREP	ESTEWARD	ESTEWARD	C34M C34N C34B	35B 84B	27B 58B	D	1980-90: Specific instruction to include senior stewards (although often ignored in 1990) 1980, 1984: not restricted to recognised unions 1990, 1998, 2004: restricted to reps of recognised unions with members
Number of reps of recognised unions (where TUREP=1)	TUREPNUM	ESTEWNUM	ESTEWNUM	C34M C34N C34B C38	35B 84B	27B 58B	C	See comments for TUREP.
Whether any full-time union reps (where TUREP=1)	TFTUREP	ESTEWTIM	ESTEWTIM	C40M C40N C40B	37A 86A	29B 60B	D	1980-90: full-time stewards acknowledged by management as senior stewards 1998, 2004: any full-time union reps (i.e. for comparability, must assume all full-time reps would be acknowledged as senior)
Whether reps from another establishment in the organisation cover members at this establishment (where TSINGLE=2 and TUREP=2)	TEXTREP	ESTEWEEXT	ESTEWEEXT	C36M C36B C36N	35D 84D	X	D	1998, 2004: only asks about external reps of largest recognised union 1990: external reps of recognised unions 1984: external reps of any unions
Summary of union rep presence (Full-time; Part-time; Recognition but no reps; No recognition)	TREPSUM	Derived from TRECOC, TUREP and TFTUREP					Cat	Where TUREP missing, coded to 3 Where TFTUREP missing, coded to 2
Summary of union rep presence (Local rep; External rep only; Recognition but no reps; No recognition)	TREPSUM2	Derived from TRECOC, TUREP and TEXTREP					Cat	1980: Cannot identify cases with external reps – left in category 3 (no reps)
Any non-union reps, excluding health and safety reps?	TOTHREPS	EOTHREPS	EOTHREPS	C41	X	X	D	1998: Question wording ambiguous. Could include reps of non-recognised unions. TOTHREP2 tries to resolve this.
Number of non-union reps, excluding h&s reps (where TOTHREPS=1)	TNUMREPS	ENUMREPS	ENUMREPS	C42	X	X	C	1998: See comment on TOTHREPS Some very large values in some years.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any non-union reps, excluding health and safety reps? (where TANYMEM=2)	TOTHREP2	EOTHREPS	EOTHREPS ECHOSEN	C41	X	X	D	1998: Uses ECHOSEN to try and remove reps of non-recognised unions. See TOTHREPS.
Number of negotiating groups (1; 2; 3+) (where TRECOG=1)	TNGROUP1	EJOINT EGROUPS	EJOINT EGROUPS	C18	X	X	Cat	1980, 1984: recorded separately for manual and non-manual data - possibility of double-counting precludes derivation 1998 and 2004: TNGROUP1 assumed to be 1 where TTOTREC=1
Number of negotiating groups (1; 2; 3+) (where TTOTREC>1)	TNGROUP2	EJOINT EGROUPS	EJOINT EGROUPS	C18	X	X	Cat	1980, 1984: recorded separately for manual and non-manual data - possibility of double-counting precludes derivation
Any profit-related payments or bonuses (exc. deferred schemes) (where TTRADING=1)	TPRPAY	FPROF	FVARPAY1 – FVARPAY6	K24_D1	X	X	D	1990 wording more explicit 1990: “does company operate...” 1998: “do any employees at this establishment receive payments or dividends from ...” 2004: Do any employees at this workplace receive profit-related payments or profit-related bonuses?
Any deferred profit-sharing schemes (where TTRADING=1)	TDPROF	X	FVARPAY1 – FVARPAY6	K24_D2	X	X	D	1990 wording more explicit 1990: “does company operate...” 1998: “do any employees at this establishment receive payments or dividends from ...” 2004: deferred schemes only asked about in panel.
Any profit-sharing scheme (profit-related payments OR deferred profit-sharing scheme) (where TTRADING=1)	TPROFSH	X	FVARPAY1 – FVARPAY6	K24_D1 K24_D2	144B	X	D	See comments on TPRPAY and TDPROF. 1984: “does company operate...” 2004: deferred schemes only asked about in panel

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any share-ownership schemes with employee participation (where TTRADING=1)	TSHOWN	FSHAR1- FSHAR6 FNONWHO	FVARPAY1 – FVARPAY6	K24 K29	144B, E	112A, D	D	1980: Specific question 1984-98: One code on a general question 1984, 90: make explicit mention of share <i>option</i> schemes 1990: refers to two specific types of scheme, plus catch-all 'other' 1980-90, 2004: Coded to 'No' if no employees at the workplace are actually participating, for comparability with 1998 data which focuses on cases where employees receive payments or dividends. 2004: asks about 4 specific schemes and one general catch-all. Only asks about non-managerial participation
Any share-ownership schemes with eligible employees (where TTRADING=1)	TSHOWN2	FSHAR1- FSHAR6 FSHARWHO	FVARPAY1 – FVARPAY6 FSHARWHO	K24 K26	144B, D	112A, C	D	See notes on TSHOWN. 2004 and 1998: non-managerial employees
Any share-ownership schemes (where TTRADING=1)	TSHOWN3	FSHAR1- FSHAR6	X	K24	144B	112A	D	See notes on TSHOWN
Percent participation in share-ownership schemes (where TTRADING=1 and TSHOWN=1)	TSHOPART	FNONWHO FSHAREXAC T	FNONWHO	K29	144E	112D	Cat	2004 and 1998:% non-managerials participating
Whether any employees receive merit pay	TMERIT	FPERF1 FPERF2	X	k3a to k3h	X	X	D	1990: questions only asked where 5+ employees for the single-digit occupation concerned, so lot of (non-random) missing values. Could considerably hamper comparability.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether any employees receive payments-by-results	TPERFP	FPERF1 FPERF2	FVARPAY1- FVARPAY6	k1a_d1, k1a_d2, k1a_d3 thru to k1h_d1, k1h_d2, k1h_d3	132ai_d1 132aii_d1 132aiii_d1 132aiv_d1 132av_d11 32avi_d1 132avii_d1 q132aviii_d1	X	D	1984: any of 8 occupational/gender groups paid by results 1990: questions only asked where 5+ employees for the single-digit occupation concerned. 1998: very different format to question liable to lead to under-reporting. See Kersley et al 2006: 190-191 and Millward et al. 2000: 212-213 Could all considerably hamper comparability.
Whether any employees receive merit pay or payments-by-results	TMERPERF	FPERF1 FPERF2	X	k1a_d1, k1a_d2, k1a_d3 thru to k1h_d1, k1h_d2, k1h_d3 k3a to k3h	X	X	D	1990: questions only asked where 5+ employees for the single-digit occupation concerned. Could considerably hamper comparability.
Whether any employees receive individual-based payments-by-results	TINDPBR	FMEASUR1 TO FMEASUR5	FMEASUR1 TO FMEASUR4	k1a_d1 to k1h_d1	132ci_d1, 132cii_d1 132ciii_d1 132civ_d1 132cv_d1 132cvi_d1 132cvii_d1 132cviii_d1	X	D	See notes on TPERFP 1984: any of 8 occupational/gender groups 1990: questions only asked where 5+ employees for the single-digit occupation concerned 1998: non-managerial employees only

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether any employees receive group, establishment or organization based payments-by-results	TCOLPBR	FMEASUR1 TO FMEASUR5	FMEASUR1 TO FMEASUR4	k1a_d2, k1a_d3 thru to k1h_d2, k1h_d3	132ci_d2, 132cii_d2, 132cii_d2, 132ciii_d2, 132civ_d2, 132cv_d2, 132cvi_d2, 132cvii_d2, 132cviii_d 2,132ci_d3 132cii_d3, 132cii_d3, 132ciii_d3, 132civ_d3, 132cv_d3, 132cvi_d3, 132cvii_d3 132cviii_d 3	X	D	See TPERFP and TINDPBR
Any employees currently on fixed term contracts of less than one year?	TTEMPLYR	X	JTEMPLYR	N23	162	142	D	1984, 1990: Interviewer notes specifically exclude YTS and sandwich students 1998: wording broadened to include "employees working on a temporary basis". But only asks about current situation, no 'in the last 12 months' 2004: not available because don't ask about length of temp/fixed term employee contracts WERS records number of employees in 1980, 1984 and 1990, but not 1998.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any employees currently on fixed term or temporary contracts?	TFIXTEMP	ZFIXTERM ZANYTEM	JTEMPLYR JTEMPMYR	X	X	X	D	2004: asked on EPQ for number and if DK follow up on if any 1998: separately identifies those on contracts of <1 yr and 1+ years in main body of questionnaire. Reference to temporary basis confined to JTEMPLYR WERS records % (6 bands) in 1998; records number in 2004.
Any agency temps? 1980: in past month 1984: last 12 months 1998, 2004: 'presently'	TAGENCY	ZAGENCY ZANYAGY	JAGENCY	X	163	141	D	1980: 'temporary assignment from an employment agency in the past month' 1984: 'temporary assignment from a private employment or placing agency in last 12 months' 1998, 2004: 'presently working here' rather than any time in the last 12 months 2004: in EPQ asks for N agency workers then follow up if any if DK N In each year we also have number of agency workers. In 1998 and 2004, we have occupations they are in
Any freelance workers in last 12 months (or 'presently' for 1998 and 2004)?	TWRKFREE	JWRKFREE	JWRKFREE	N25	164	140	D	1998 and 2004: uses term "presently", rather than "in the last 12 months"

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any homeworkers who are not employees?	THWORKER	JNEMPHM	JNEMPHM	N25	164	136a	D	1998 and 2004: explicit focus on non-employee homeworkers (outworkers not mentioned and employees working from home covered on JHOMWRK); implicit focus on use at time of interview 1984/90: any use of homeworkers/outworkers in last 12 months 1980: 'ever use' homeworkers/outworkers. Q137a implies question is about non-employees, rather than employees who work at home.
Any employees working at/from home?	THOMWRK	JHOMWRK	JHOMWRK	X	X	X	D	2004: based on dummy variable 1998: based on categorical variable
Any shift-working?	TSHIFT	JTIMEAR1 TO JTIMEAR3	JTIMEAR	N18	158a	113a	D	1990: Adds 'currently' 1998: refers to non-managerial employees only
Any reductions in the workforce in the last 12 months?	TREDUCT	X	JREDUCT	N10	151a	105a	D	1980: simply refers to 'reductions in the workforce', rather than 'reductions in any section or sections of the workforce' Note: these could be voluntary or involuntary reductions – see TREDMET.
Means of achieving workforce reductions in last 12 months (where TREDUCT=1) 1 Natural wastage 2 Redeployment 3 Early retirement/ voluntary redundancy 4 Compulsory redundancy	TREDMET1 – TREDMET4	X	JREDMET1- JREDMET5	N12	151c –YET TO DO CAUSE NEEDS EXPLODI NG	105b – YET TO DO CAUSE NEEDS EXPLOD ING	D	2004 EPQ asks for numbers of quits and redundancies, but as not preceded by TREDUCT type question, not comparable

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Reasons for workforce reductions in last 12 months (where TREDUCT=1) 1 Lack of demand for products/services 2 Shortage of materials 3 Automation 4 Reorganization of work 5 Improved efficiency 6 Industrial disputes 7 Budget restrictions 8 Subcontracting of work 9 Impending closure 10 Staff shortages	TREDRE01-TREDRE10	X	JREDREA1-JREDREA8	N11	151b – YET TO DO NEEDS EXPLODING	X	D	2004: JREDREA* only asked with respect to redundancies
Sub-contracted activities: 1 Cleaning 2 Security 3 Catering 4 Building maintenance 5 Printing / photocopying 6 Payroll 7 Transport of documents / goods 8 Computing services 9 Training 10 Recruitment 11 Temp filling vacant posts	TNONEM1-TNONEM11	JNONEM01-JNONEM11	JNONEM01-JNONEM12	N29	X	X	D	1998: refers to “independent contractors” 1990: refers to people who are not employees of the establishment or organization. 1998-2004: extends list to TNONEM8-11
Recruited any permanent staff in last 12 months?	TANYREC	X	ZCOMMWOR	N16	155a	X	D	2004: missing. Instead management asked if any vacancies in LOG in last 12 months (CLOGVAC). 1998: specific instruction to include those who arrived and departed within the one year

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Single or multiple product(s)/ service(s)? (where TTRADING=1)	TPROSER	KPROSER	KPROSER	P22, FA20	8b	8a	D	Routing errors boost number of user-missing values in both 1990 and 1998. 2004: only asked if trading externally (ASINGLE=1 OR KACTIVM<=2). 1998: only asked if trading externally (KACTIVI<=2) 1984, 1990: only asked of sites not classified as head offices or admin offices 1980: only asked of workplaces classified during interview as 'manufacturing' Note: 1984-1980: high % trading sector not asked raising questions about value of this data item
Trend in value of sales for main products or services (where TTRADING=1)	TVALSAL	X	KVALSAL	P55 FA95	13B	9	Cat	1980: <i>demand for</i> main products or services 1990: priority given to responses from Financial Manager, where both responses recorded. 1990, 1998: Routing errors boost number of user-missing values.
Labour costs as a proportion of sales revenue (trading sector) or operating costs (non-trading sector)	TLABCOST	KPROSAL	KPROSAL	P56 A33	13C 15B	X	Cat	1990: Many cases not asked question (specifically, where TRADING=1 and (TSINGLE=1 or THO=1)). These cases coded to dedicated code 8 on TLABCOST. Non-response high in all years.
Whether establishment sells its goods/services outside its own organisation (where TTRADING=1 and (TSINGLE=1 or THO=3))	TSELLS	kactivm1 kactivm2 kactivm3 kactivm4 kactivs1 kactivs2	KACTIVI	P25, P34, P43 FA23, FA46, FA69	9B 10B 11B	X	D	1984, 1990: automatically set to 'Yes' where TSINGLE=1 and THO=3 and respondent does not say that the <i>majority</i> of good/service is sold within their own organization.
Percentage of output sold to largest customer (where TSELLS=1)	TLARGE	KLARGE	KLARGE	P26, P35, P44 FA24, FA47, FA70	X	X	Cat	1990: Continuous variables grouped into 1998 bands

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Location of principle market for goods/services (where TSELLS=1)	TMARKET	KMARKET	KMARKET	P27, P36, P45 FA26, FA49, FA72	9C 10C 11C	X	Cat	
Number of competitors in market (where TSELLS=1)	TCOMPET	KCOMPET	KCOMPET	P28, P37, P46 FA27, FA50, FA70	9D 10D 11D	X	Cat	1984, 1990: Restricted to TSELLS=1 for comparability with 1998 and 2004
Degree of competition in market for main product/service (where TSELLS=1)	TDEGREE	KDEGREE	KDEGREE	X	X	X	Cat	
Amount of competition from overseas suppliers (where TSELLS=1)	TOVRSEA	KOVRSEA	KOVRSEA	X	X	X	Cat	
UK market share for main product/service (where TSELLS=1)	TPCTSHAR	KPCTSHAR	KPCTSHAR	X	X	X	Cat	
Current state of market for main product/service (where TSELLS=1)	TSTAMAR	KSTAMAR	KSTAMAR	X	X	X	Cat	
If interviewed at establishment (rather than a regional or head office, or more than one site)	TLOCATE	MQLOC	MQLOC	MQLOC	Address Record Form (CARD 3 COLS 19- 20)	3	D	
Evaluation of financial performance compared with other establishments in same industry (where TTRADING=1)	TESTPER1	KESTPER1	KESTPER1	P59 FB3, FB4	14A	10B	Cat	1980: No further clarification within 'Better' or 'Below'; 'Other ans.' (code 7) recoded to 'DK/NA' (code 9). 1990: Those without clarification (i.e. just 'Better' or 'Below') coded to 2 and 4. Priority given to Financial Manager's response where both recorded. Labels for P59 codes 4 and 5 on deposited WIRS90 data file incorrectly reversed – corrected file deposited Jan 2002. Coding scheme for P59 detailed on p.86 of User Guide.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Evaluation of labour productivity compared with other establishments in same industry (where TTRADING=1)	TESTPER2	KESTPER2	KESTPER2	P58 FB6	X	X	Cat	1990: comparison is simply with "other similar workplaces"
Evaluation of quality of product/service compared with other establishments in same industry	TESTPER3	KESTPER3	KESTPER3	X	X	X	Cat	No trading sector filter necessary: asked of all cases in both years.
Management collects information on labour costs	TCOLLEC1	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d6	X	X	D	1990: refers to information collected <u>and used</u> to review performance and policies on an annual or more frequent basis 1998, 2004: "any of the following records kept for this establishment?"
Management collects information on productivity	TCOLLEC2	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d5	X	X	D	See comments for TCOLLEC1
Management collects information on absenteeism	TCOLLEC3	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d2	X	115a	D	See comments for TCOLLEC1. 1980: specific question on records of 'absence from work'
Management collects information on workforce training	TCOLLEC4	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d7	X	X	D	See comments for TCOLLEC1
Management collects information on gender mix of workforce	TCOLLEC5	X	IPRACTI1 – IPRACTI6	B20_d10	X	X	D	See comments for TCOLLEC1
Management collects information on ethnic mix of workforce	TCOLLEC6	X	IPRACTI1 – IPRACTI6	B20_d9	X	X	D	1990: whether information on ethnic mix of workforce is collected and used as per comment or TCOLLEC1 1998: whether keep employee records with ethnic origin identified
Management collects information on sales/fees/budget	TCOLLEC7	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on costs	TCOLLEC8	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on profits	TCOLLEC9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on quality of product or service	TCOLLEC10	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on labour turnover	TCOLLEC11	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Arrangements for dealing with health and safety (detailed)	THANDS	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3	L16	140A	126A	Cat	1998, 2004: question format very different from previous years and no showcard used.
Arrangements for dealing with health and safety	THANDS3	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3 DWHIDH01 TO DWHICH14, D1WHI01 TO D1WHI14	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3 DWHICH01 TO DWHICH12	X	X	X	Cat	1998, 2004: Unlike THANDS and THANDS2 this uses information from Section D
Joint committee that discusses health and safety	THANDSCOM	ICOMMTEE DWHIDH01 TO DWHICH14, D1WHI01 TO D1WHI14	ICOMMTEE DWHICH01 TO DWHICH12	L16	140A	126A	D	1998, 2004: Unlike THANDS and THANDS2 this uses information from Section D
Whether employee reps on health and safety committee are chosen by unions or staff assocs. (where TANYMEM=1)	TAPPHS	ISELCOM1 TO ISELCOM4, ISELREP1 TO ISELREP2 DSELECT1 TO DSELECT4	IREPNUM DAPPOIN	L18	140B	X	D	1998: Compiled from two questions; format very different from previous years 2004: format different to other years
Any of specified injuries in last 12 months	TINJURY	IINJURY1 TO IINJURY8	IINJURY1 TO IINJURY8	P3	X	X	D	1998: showcard includes physical assault and broadens other categories (may explain why incidence of injuries is much higher than 1990) 2004: changes to showcard once again though N codes is the same
Number of injuries in last 12 months	TNUMINJ	INUMINJ	INUMINJ	P4	X	X	C	Caution needed: See comments on TINJURY.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Whether formal procedures for dealing with collective disputes	TPROC COL	GPROCEDU	GPROCEDU	J1_D1	120A	83A	D	1998, 2004: explicitly refer to 'collective disputes' and only ask about non-managerial employees.
Whether formal procedures for dealing with individual grievances	TPROC GRV	HPROCEDU	HPROCEDU	J1_D3	120C	83C	D	1998: only asks about non-managerial employees.
Whether formal procedures for dealing with discipline and dismissals other than redundancies	TPROC DIS	HOTHPRO	HOTHPRO	J1_D2	120B	83B	D	1998: only asks about non-managerial employees. However source-books suggest that, in earlier years, few workplaces differentiated between grades.
Number of employees dismissed in last 12 months (other than redundancies)	TDIS NUM	ZDISMISS	ZDISMISS	J36, J37	131A 131B	107A	C	1998 and 2004 can be expected to produce lower estimates than 1980-1990. 1998: permanent employees only. 2004: N employees on payroll 12 months ago who have been dismissed (so omits those hired and dismissed within the year)
Have any employees received a formal written warning in the last 12 months?	TWARNING	HWARNING	HWARNING	J38_D1	X	X	D	
Have any employees had a deduction from their pay in the last 12 months?	TDEDUCT	HDEDUCT	HDEDUCT	J38_D5	X	X	D	
Have any employees been suspended in the last 12 months?	TSUSPEND	HSUSPEND	HSUSPEND	J38_D2, J38_D3, J38_D4	X	X	D	
How many employees have been sanctioned in last 12 months?	TSANC NUM	X	HSUSNUM	J39	X	X	C	1998 and 1990: received a formal written warning, had a deduction from their pay or been suspended in the last 12 months? (where TWARNING=1, TDEDUCT=1 or TSUSPEND=1) 2004: HSUSNUM includes other sanctions so not comparable

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Any industrial tribunal cases started against employer in last 12 months?	TCOMPLAI	HCOMPLAI	HCOMPLAI	J40	131D	107B	D	1980: suspiciously high % coding 9. See note 8 on p.175 in WIRS1 sourcebook, which advises reliance only on 'yes' codes. 1984 and 1990 ask whether 'notified' of any official tribunal actions. 1998 asks if any 'complaints' have been made to an Industrial Tribunal 2004 asks if any 'applications' have been made to an Employment Tribunal
Number of tribunal cases started against employer in last 12 months	TCOMNUM	HCOMNUM	HCOMNUM	J41	X	X	C	See notes on TCOMPLAI.
Has establishment been picketed in last 12 months?	TPICKET	GPICKET	GPICKET	M6	148A	133A	D	
Any formal job evaluation scheme?	TJEVAL	FJOBEBVAL	X	K5	134A	118A	D	1980 gives no definition and does not specify 'formal' schemes
Number of job evaluation schemes	TNJEVAL	FJOBENUM	X	K5	134B	118A 118B	Cat	See comments on TJEVAL
If only/largest job evaluation scheme is points rating scheme? (where TJEVAL=1)	TJEVPOINT	FJOBECRIT	X	K8	134D	X	D	1980 data (Q118j) not used as refers to scheme most recently set up
% employees resigning/leaving voluntarily	TQUIT	ZRESGINE ZEMP1AGO	ZRESGINE ZEMP1AGO	P1 ZEMP1AGO ZALLEMPS	X	X	C	2004 and 1998: based on employees on payroll 12 months ago 1990: all resignations/leavers (apart from dismissals) in last 12 months, expressed as % of average employment in last 12 months 1990, 1998: numerator excludes departures of non-permanent staff Note: watch out for high numbers of missing values and also for extreme values
Whether establishment's main activity is manufacturing (i.e. not extraction or services)	TMANUF	ASIC2003	ASIC_FIN	A1	1A	1A	D	1980, 1984, 1990: based on SIC80 codes 2210-2247 & 2410-4959. See note for TSIC80B. 1998: SIC92 codes 15000 thru 39999 2004: SIC03 codes 15000 thru 39999

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Forms of industrial action in the past 12 months: Strikes of less than one day Strikes of one day or more Strikes of >=1 day but < 1 week Strikes of one week or more Overtime ban or restriction Work to rule Blacking of work Go-slow Work-in / sit-in Lock-out Other industrial action	TSTRILTD TSTRIGED TSTRIDW TSTRIGEW TOTBAN TWRULE TBLACK TGOSLOW TSITIN TLOCK TOTHIA	GACTIO01- GACTIO11	GACTIO01- GACTIO04	M4	147A, B	127A 127B 128A 128B	D	TSTRIDW and TSTRIGEW not available in 1980. Separate recording for manual and non-manual workers abandoned in 1998 TOTHIA not to be confused with TOTHACT (any non-strike action).
Any union/non-union voice mechanisms?	TVOICE1	Derived from TREGOG, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TANYMEM and TBRIEF					Cat	See notes for TREGOG, TJCCF, TJCCFTU, TANYMEM, TCONSALL and TBRIEF
Any union/non-union voice mechanisms?	TVOICE2	Derived from TREGOG, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TBRIEF, TCIRCLES and TOTHREP2					Cat	See notes for TREGOG, TJCCF, TJCCFTU, TCONSALL, TBRIEF, TCIRCLES and TOTHREP2
Any union/non-union voice mechanisms?	TVOICE2A	Derived from TREGOG, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TBRIEF and TOTHREP2					Cat	See notes for TREGOG, TJCCF, TJCCFTU, TCONSALL, TBRIEF and TOTHREP2
Any representative/direct voice mechanisms?	TVOICE3	Derived from TREGOG, TJCCF, TCONSALL, TCONSALL2 and TBRIEF					Cat	See notes for TREGOG, TJCCF, TCONSALL and TBRIEF
Any representative/direct voice mechanisms?	TVOICE4	Derived from TREGOG, TJCCF, TCONSALL, TCONSALL2, TBRIEF, TCIRCLES and TOTHREP2					Cat	See notes for TREGOG, TJCCF, TCONSALL, TBRIEF, TCIRCLES and TOTHREP2
Any representative/direct voice mechanisms?	TVOICE4A	Derived from TREGOG, TJCCF, TCONSALL, TCONSALL2, TBRIEF, and TOTHREP2					Cat	As per TVOICE3, plus TOTHREP2
Any voice mechanisms?	TVOICE5	Derived from TVOICE2 and TVOICE4					Cat	See notes for TVOICE2 and TVOICE4
Any voice mechanisms?	TVOICE5A	Derived from TVOICE2A and TVOICE4A					Cat	See notes for TVOICE2A and TVOICE4A
Whether any employees dismissed in last 12 months?	TDISMISS	Derived from TDISNUM					D	See notes for TDISNUM.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Locus of decision making within main pay determination arrangement (12 categories)	TPAYDET2	Derived from TPAYDET					Cat	Categories separated according to values of TCOVPC3
Locus of decision making within main pay determination arrangement (7 categories)	TPAYDET3	Derived from TPAYDET					Cat	Categories <i>not</i> separated according to values of TCOVPC3
Arrangements for dealing with health and safety (summary)	THANDS2	Derived from THANDS					Cat	Codes 4-20 of THANDS grouped together in 'Other'
Identity of LOG	TLOG	ZPROF_TO T etc	ZPROF_TO T etc	EMSPS: A2B to A2I	X	X	Cat	1991, 1998: Based on SOC(1990) 2004: Based on SOC(2000) 1980, 1984: not derived because BWDS uses a very different occupational classification
Number of employees in LOG	TLOGTOT	ZPROF_TO T etc	ZPROF_TO T etc	EMSPS: A2B to A2I	X	X	C	See comments on TLOG
Teamworking for LOG (%)	TTEAMS	CTEAMS CTEAMHO A- CTEAMHO D	CTEAMS CTEAMHO A- CTEAMHO D	X	X	X	Cat	
Training for functional flexibility in LOG (%)	TOTHJOB	COTHJOB	COTHJOB	X	X	X	Cat	
Training for functional flexibility in LOG (any)	TOTHJOB2	COTHJOB	COTHJOB	EMSPS: D26+D27	X	X	D	
LOG has variety in job	TVARIETY	CVARIETY	CVARIETY	X	X	X	Cat	
LOG has discretion in job	TDISCRET	CDISCRET	CDISCRET	X	X	X	Cat	
LOG has control in job	TCONTROL	CCONTROL	CCONTROL	X	X	X	Cat	
Internal recruitment	TINTPREF	CFILLVAC	CFILLVAC	X	X	X	D	EMSPS: C7 identifies a preference for internal, but across each of 9 occ groups, so not used.
Motivation as selection criterion	TMOTIV	CFACTOR	CFACTOR	X	X	X	D	
Induction for LOG	TINDUCT	CINDUCT	CINDUCT	X	X	X	D	EMSPS: D2-D5 cover induction, but focus explicitly on 'instruction for the job' so not used

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Appraisal (% non-managerials)	TAPPRAIS	FSOCIN	FSOCIN	EMSPS: D32-D34	X	X	Cat	1998, 2004: 'formal appraisal' EMSPS: any assessment of performance; if an occ group is cited, we assume all in that group are appraised 1990: N7 asks about appraisal but only covers manuals / clericals (whichever greater) so not used
Appraisal for LOG	TAPPLOG	FSOCIN, TLOG	FSOCIN, TLOG	EMSPS: D32-D34, TLOG	X	X	D	See notes on TAPPRAIS
Appraisal includes analysis of training needs (where TAPPRAIS<7)	TAPPTRN	FAPPTRN	FTYPEAP	EMSPS: D35	X	X	D	EMSPS: Only asked if provide some training, but this is almost everyone so considered useable 1998, 2004: identified if this is one of the main purposes of the appraisal
Appraisal for LOG includes analysis of training needs (where TAPPLOG<7)	TAPPTRNL	FAPPTRN, TLOG	FTYPEAP, TLOG	EMSPS: D35, TLOG	X	X	D	See notes on TAPPTRN.
Off-the-job training for LOG	TOFFJOB	COFFJOB	COFFJOB	X	X	X	Cat	EMSPS: D18 identifies only whether off-job is main method (not whether any off-job training), so not used.
Training for LOG in communication skills	TTRNCOM	CHOW	CHOW	X	X	X	D	
Training for LOG in teamworking	TTRNTEAM	CHOW	CHOW	X	X	X	D	
Training for LOG in human relations (teamworking or communication)	TTRNHREL	See TTRNCOM and TTRNTEAM					D	
Extra-statutory sick pay for LOG / managers	TSICKLOG / TSICKMGR	FENTITL, FOTHTITL	FENTITL, FOTHTITL	X	X	X	D	1990: N3 and N4 cover this issue but question only asked if 5+ manuals and 5+ non-manuals, so not used
Employer pension scheme for LOG / managers	TPENLOG / TPENMGR	FENTITL, FOTHTITL	FENTITL, FOTHTITL	X	X	X	D	1990: N3 and N4 cover this issue but question only asked if 5+ manuals and 5+ non-manuals, so not used
Harmonised fringe benefits between LOG and managers	THARMON	See TSICKLOG, TSICKMGR, TPENLOG, TPENMGR					D	
Job security guarantees for any non-managerials	TJOBSEC	JOBSEC	JOBSEC	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Job security guarantees for LOG	TJOBSECL	JOBSEC, TLOG	JOBSEC, TLOG	X	X	X	D	
Self-inspection	TEMPMON	KHOWMON	KHOWMON	X	X	X	D	
Records on faults and complaints	TRECMON	KHOWMON	KHOWMON	X	X	X	D	
Customer surveys	TCUSTMON	KHOWMON	KHOWMON	X	X	X	D	
Training in quality	TTRNQUAL	CHOW	CHOW	X	X	X	D	
Training in problem-solving	TTRNPROB	CHOW	CHOW	X	X	X	D	
Quality targets	TQUALTAR	KTARGET	KTARGET	X	X	X	D	
Just-in-time procedures	TJIT	KJIT	KJIT	X	X	X	D	
Equal opportunities policy	TEOPOL	IPOLICY	IPOLICY	X	X	X	D	
Equal opportunities policy specifically citing: Gender Ethnicity Religion Marital status Disability Age Sexual orientation Union membership	TEOPOL1 TEOPOL2 TEOPOL3 TEOPOL4 TEOPOL5 TEOPOL6 TEOPOL7 TEOPOL8	IGROUNDS	IGROUNDS	X	X	X	D	
Investors In People status	TIIP	BAWARD	BAWARD	X	X	X	D	
EUKLEMS industry classification	TEUKLEMS	ASIC92	ASIC_FIN	A1	Q1a	Q1a	C	A string variable. Permits the WERS time-series data to be linked to the EUKLEMS industry-level database, which provides measures of economic growth, productivity, employment creation, capital formation and technological change at the industry level for the UK from 1970 onwards. See http://www.euklems.net
Establishment weight	WEIGHT	ESTWTNR	ESTWTNR	WEIGHT	CARD 21, COLS 73-80	CARD 40, COLS 61-65 Plus ADJUSTMENT FACTOR	C	1980: Employ the adjustment factor used in 1984 sourcebook to boost lower end of distribution (compensating for age of frame). See pages 7 and 329-332 of 1984 sourcebook. 1998: Use revised weight compiled during 2004 analysis (original 1998 weight not truly consistent over time)

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS					TYPE OF VARIABLE	FURTHER INFORMATION
		2004	1998	1990	1984	1980		
Employee weight (WEIGHT * TALLEMPS)	EEWEIGHT	Derived from WEIGHT and TALLEMPS					C	

WORKPLACE EMPLOYMENT RELATIONS SURVEY
TIME-SERIES DATASET

Version 3.0: May 2014

Compiled by John Forth and Helen Bewley (NIESR)

CONTENTS

Acknowledgements	3
1. The Nature of the WERS Time-Series Dataset	4
2. Compilation of the Time Series Dataset.....	5
3. Supporting Documentation	6
4. Analysis of the Time-Series Data.....	8
Appendix A: Interpreting Get80ts.sps and Get84ts.sps	11
Appendix B: Time-Series Variable Map	14

Acknowledgements

The compilation and primary analysis of Version 1 of the WERS Time-Series Dataset (comprising the 1980, 1984, 1990 and 1998 surveys) was chiefly undertaken by a team comprising Neil Millward and John Forth (National Institute of Economic and Social Research) and Alex Bryson (Policy Studies Institute). The work was funded by the Leverhulme Trust and by the ESRC (Award No. H554255001). The analysis of Version 1 of the WERS Time-Series formed a key part of the research that was subsequently reported in a 300-page volume entitled *All Change at Work?*, published by Routledge in Spring 2000. Assistance in compiling the dataset was provided at various points by Stephen Woodland (Department of Trade and Industry), Karen Mackinnon (Policy Studies Institute) and Simon Kirby (NIESR)

Version 2 of the dataset was compiled by Alex Bryson and John Forth as part of an ESRC-funded research project to examine changes in employment relations over the period 1980-2004 (Award No. RES-000-23-1603). Version 2 incorporated data from the 2004 survey, thereby extending the time-series to a fifth time point. Analysis of the dataset was subsequently reported in a book entitled *The Evolution of the Modern Workplace*, published by Cambridge University Press in 2009.

Version 3 of the dataset was compiled by John Forth and Helen Bewley under a grant from the Department for Business Innovation and Skills to encourage use of the data from the 2011 survey. Version 3 of the dataset therefore incorporates six time points.

WERS TIME-SERIES DATASET

1. The Nature of the WERS Time-Series Dataset

The WERS Time-Series Dataset is formed from the interviews with the **main management respondent** in each of the six cross-section surveys (1980, 1984, 1990, 1998, 2004 and 2011). The dataset contains a wide range of data items from throughout the 1998, 2004 or 2011 management questionnaires for which there are also comparable items in at least one other previous cross-section survey in the WERS series. The main purpose of the dataset is, therefore, to provide consistent data items which span both the early and latter parts of the WERS series.¹

None of the information obtained from interviews with worker representatives or from employees' self-completion questionnaires is currently incorporated in the Time Series dataset. However, the dataset does draw upon the responses from the 1990 survey of financial managers, in which selected questions from the main interview were asked of this respondent instead of the personnel manager.² It also draws upon the 1991 Employers' Manpower and Skills Practices Survey (EMSPS), which returned to 88% of the workplaces in WIRS 1990 to ask additional questions about recruitment practices, training and other activities.

This time-series dataset makes the most of the continuity present within the survey series by providing direct comparisons of employment relations practice at six specific points in time over the past three decades. It is therefore possible to investigate the degree of change or stability in the incidence of specific practices over time, both in aggregate and within particular sectors of the economy or types of workplace. One can also assess the extent to which historical relationships – such as that between workplace size and union presence, for example - have changed over the period of observation.

Aside from the addition of a sixth time-point, this version of the dataset (Version 3.0) is largely the same as versions 1 and 2. However, the range of variables added for the 2011 time point is not as extensive as that added for the 1998 or 2004 time points, because the budget available to fund Version 3.0 was smaller than was available for previous versions. As a consequence the sixth time point is less complete than is the case for earlier time points. A full list of variables contained within the dataset is provided in Appendix B of this document. If a particular time-series variable has not been extended to 2011, this does not necessarily imply that such an extension is not possible.

¹ Users interested to construct consistent data items from the 2004 and 2011 surveys only should instead make use of the WERS 2011 Research Team's Stata syntax which constructs a pooled dataset from these two most recent surveys in the series. That syntax derives a broader set of items than is included in the Time Series dataset because it is not constrained by the need to maintain comparability with earlier surveys in the series.

² The purpose of this was to reduce the burden on personnel managers. In workplaces where the respondent was identified as a personnel specialist and a financial manager could also be identified, certain questions which, elsewhere, were asked of the personnel manager were instead directed to the financial manager. This occurred in 454 workplaces in total.

2. Compilation of the Time Series Dataset

Taking a topic covered in the 1998, 2004 or 2011 survey, such as the presence of a multi-issue joint consultative committee (Questions: DJOINT and DISSUES), similar questions were first identified in each of the 1980, 1984 and 1990 surveys. The 1991 EMSPS also served as a source of data in instances where an issue was not covered in WIRS90 but was covered in EMSPS. If the questions that were found across the series were considered sufficiently similar to permit the compilation of a consistent measure, a data item would be derived from each of the relevant survey data files. Data items were given descriptive variable names, all beginning with the letter T, such as TJCC.

Having derived these consistent data items, workplace records from each of the six surveys were then added together to form a single time-series dataset that spanned the whole of the WERS series, as indicated in Figure 1. An additional variable named YEAR was also added to the dataset to identify the survey from which each individual observation originates.³

The main time-series dataset (WIRSTS25.*) contains 11,591 unique records, comprising all of the workplaces surveyed in the 1980, 1984 and 1990 cross-section surveys together with all 1,929 workplaces with 25 or more employees surveyed in 1998, all 1,648 workplaces with 25 or more employees surveyed in 2004, and all 1,894 workplaces with 25 or more employees surveyed in 2011.⁴

A second version (WIRSTS10.*) contains 6,635 records, comprising all 2,191 workplaces surveyed in 1998, all 2,062 workplaces with 10 or more employees surveyed in 2004 and all 2,382 workplaces with 10 or more employees surveyed in 2011.

Workplaces with 5-9 employees that were interviewed as part of the 2004 or 2011 surveys are excluded from the deposit (see footnote 1 above on data containing comparable items from the full 2004 and 2011 datasets).

³ Accordingly, an observation originating from WIRS80 has the YEAR variable coded to 1980. Note, however, that those 1,963 of the 2,061 workplaces from WIRS90 that participated in the 1991 EMSPS appear twice, once with YEAR=1990 and once with YEAR=1991. However, WIRS90 and EMSPS provide only non-overlapping data items for these cases.

⁴ As noted in footnote 2, the 1,963 workplaces that participated in the 1991 EMSPS appear twice, such that WIRSTS25.* contains a total of 13,284 records.

Figure 1 Illustration of the process of compiling time-series data items

WIRSTS25.sav						
Questions	SPSS Syntax files	New variable ¹	SPSS syntax file	Case ²	YEAR	TJCC
1980: Q120a	Get80ts.sps	TJCC		1	1980	1
...	...	...		2041	1984	2
1984: Q137a	Get84ts.sps	TJCC		...	...	...
1990: Q11	Get90ts.sps	TJCC		4060	1990	2
...
1991: n/a	Get91ts.sps	-		4060	1991	-
...
1998: Djoint Dissues	Get98ts.sps	TJCC	6121	1998	1	
...	
2004: Djoint Dissues	Get04ts.sps	TJCC	8050	2004	2	
...	
2011: Djoint Dissues	Get11ts.sps	TJCC	9698	2011	1	
...	
...	...	...	11591	2011	1	

- 1 This field is blank in 1991 as the data for TJCC is provided by the 1990 WIRS rather than by EMSPS. In other cases (e.g. TAPPRAIS), it is the 1991 EMSPS that provides data rather than the 1990 WIRS.
- 2 The case numbers given here are for illustrative purposes only.

Many variables, such as TJCC, contain observations from each of the six surveys in the WERS series. However, a number contain observations from only three or two surveys in the series because changes in the content of the questionnaire, or in the detail of question wording and format, have prevented the compilation of a full series. TINVPLAN is one example, there being no question on the distribution of information about investment plans in the 1980 survey.

The documentation that accompanies the time-series dataset, which includes information on the source variables used in compiling each data item, is described in the next section.

3. Supporting Documentation

There are three elements to the supporting documentation that accompanies the time-series dataset:

1. A table mapping the origins of each time-series variable
2. The original survey documentation from each of the six surveys in the series
3. The SPSS syntax files used to create the dataset.

The first item is appended to this introductory note. The remaining two items are provided separately as part of the deposit.

(i) Time-series variable map

This consists of a large table listing all of the time-series variables that have been compiled, along with their source questions in each survey in the series and any notes concerning comparability over time. It can be found in Appendix B to this note.

(ii) Original survey documentation

The original questionnaires, code books and technical reports from each of the five surveys (six if one includes EMSPS) are all supplied with the time-series dataset.

(iii) SPSS syntax files

The seven SPSS syntax files used in the compilation of the time-series dataset are supplied along with the data file for reference purposes. The syntax files are as follows:

Get80ts.sps	Derives time-series variables from the 1980 survey data
Get84ts.sps	Derives time-series variables from the 1984 survey data
Get90ts.sps	Derives time-series variables from the 1990 survey data
Get91ts.sps	Derives time-series variables from the 1991 EMSPS data
Get98ts.sps	Derives time-series variables from the 1998 survey data
Get04ts.sps	Derives time-series variables from the 2004 survey data
Get11ts.sps	Derives time-series variables from the 2011 survey data
MergeTS.sps	Compiles time-series variables from all five surveys into a single data file

Users are advised to consult these syntax files in order to establish the precise means by which a particular time-series variable has been derived from the source data.

Get90ts.sps, Get98ts.sps, Get04ts.sps and Get11ts.sps each draw upon the survey data files deposited with, and available, from the UK Data Archive. Consequently, users should experience no difficulties in interpreting these syntax files.

However, in compiling data for the 1980 and 1984 entries in our time-series data set, we have used the original ASCII data files held by the WIRS Research Team, primarily because we were more familiar with the layout of these data files than the versions deposited at the UK Data Archive. The original ASCII data files should contain the same data as the deposited data files; however, there are some minor differences in the layout of the data which will affect users' interpretation of the syntax. These are outlined in Appendix A at the end of this document.

We have also made use of a private version of the EMSPS data file which contained additional employment data over and above the version deposited with the UK Data Archive.

4. Analysis of the Time-Series Data

(i) Sampling weights

Each of the surveys in the WIRS series is based upon a stratified random sample of workplaces in existence at the time of the survey. In each case, the sample design entails that workplaces have differing probabilities of selection. To derive unbiased estimates from the sample of workplaces, the data must therefore be weighted to restore the profile of the sample to that of the population. The time-series dataset contains a single workplace weight variable, named WEIGHT, which incorporates the workplace weights from each of the four surveys.

The dataset also contains a second weight variable, named EEWEIGHT, which may be used to obtain unbiased employee-based estimates (e.g. the proportion of employees who work in establishments with joint consultative committees).

Further details of the sampling design of each survey are provided in the Technical Reports that form part of the documentation for the time-series dataset. Interested readers are also referred to Part 6 of the 'Frequently Asked Questions' document for the 2011 WERS (deposited with that dataset), which discusses the issues of weighting and statistical inference.

(ii) Tabulating the data by YEAR

Once the data has been weighted, tabulating any of the time-series data items, such as TJCC, by YEAR will provide a table showing how the incidence of this particular arrangement varied among the population of workplaces over the course of the survey series. Users with access to the Tables module within SPSS will be able to employ the following syntax:

```
WEIGHT BY weight .

TABLES
  /FORMAT BLANK MISSING('.')
  /FTOTAL = Base1 'Base' Total1 'Total'
  /AUTOLABEL=ON
  /TABLES (tjcc + Base1) BY year
  /STATISTICS cpct(tjcc(F3) ': year)
           count(Base1 'Weighted') u count(Base1 'Unweighted')
  /CAPTION 'Base: All establishments' .
```

This syntax will produce the following table from WIRSTS25.*.

(tjcc + Base1) BY year

	Year of survey					
	1980	1984	1990	1998	2004	2011
Any joint consultative committees? 1 Yes	34	34	29	28	24	23
2 No	66	66	71	72	76	77
Base Weighted	1987	2000	1999	1998	1999	1999
Unweighted	2031	2017	2057	1926	1645	1892

Base: All establishments

For further guidance on the use of the SPSS Tables module, the reader is referred to Chapter 5 of Forth J and Kirby S (2000) *Guide to the Analysis of the Workplace Employee Relations Survey 1998*, published by the WERS98 Data Dissemination Service and available on-line at: <http://www.niesr.ac.uk/niesr/wers98/>.

(ii) Tabulating the data by YEAR within a further break variable

A further possibility is to tabulate a time-series data items, such as TJCC, by YEAR within a further break variable, such as TSTATUS. This particular example will provide a table showing how the incidence of joint consultative committees varied among the population of private and public sector workplaces over the course of the survey series. Users with access to the Tables module within SPSS will be able to employ the following syntax:

```
WEIGHT BY weight .

TABLES
  /FORMAT BLANK MISSING('.')
  /FTOTAL = Base1 'Base' Total1 'Total'
  /AUTOLABEL=ON
  /TABLES (tjcc + Base1) BY tstatus > year
  /STATISTICS cpct(tjcc(F3) ': tstatus year)
    count(Base1 'Weighted') u count(Base1 'Unweighted')
  /CAPTION 'Base: All establishments' .
```

This syntax will produce the first table shown on the following page.

It should be noted that an additional prior step is required if the primary data item derives from the 1991 EMSPS (e.g. TAPPRAIS). This is because the break variable is likely to derive from the 1990 WIRS, and the two data items are thus held on separate records in the data file (although the workplaces concerned are the same). In such cases, the data for the break variable must first be copied across to the record containing the data for the primary variable. This can be done using the following syntax:

```
do if year=1990 .
+ compute serno1=(serno-9000000) .
else if year=1991 .
+ compute serno1=(serno-9100000) .
end if .
sort cases by serno1 year .

do if year=1991 and lag(year,1)=1990 and lag(serno1,1)=serno1 .
+ compute tstatus=lag(tstatus,1) .
end if .
```

Users with access to the SPSS TABLES module can then replace TJCC with TAPPRAIS in the syntax at the top of this page to produce the second table shown on the following page.

(tjcc + Base1) BY tstatus > year

		Broad sector											
		1 Private sector						2 Public sector					
		Year of survey						Year of survey					
		1980	1984	1990	1998	2004	2011	1980	1984	1990	1998	2004	2011
Any joint consultative committees?	1 Yes	30	26	20	24	21	21	43	48	49	39	33	27
	2 No	70	74	80	76	79	79	57	52	51	61	67	73
Base	Weighted	1357	1267	1405	1474	1518	1493	630	733	593	524	481	506
	Unweighted	1325	1188	1426	1316	1147	1172	706	829	631	610	498	720

Base: All establishments

(tapprais + Base1) BY tstatus > year

		Broad sector			
		1 Private sector		2 Public sector	
		Year of survey		Year of survey	
		1998	2004	1998	2004
Percentage of non-managerials whose performance is formally appraised	1.00 All (100%)	49	67	41	64
	2.00 Almost all (80-99%)	5	2	7	7
	3.00 Most (60-79%)	2	3	5	5
	4.00 Around half (40-59%)	2	2	9	4
	5.00 Some (20 -39%)	3	3	7	6
	6.00 Just a few (1-19%)	8	5	10	3
	7.00 None	30	19	21	12
Base	Weighted	1472	1517	526	480
	Unweighted	1312	1145	611	498

Base: All establishments

Appendix A: Interpreting Get80ts.sps and Get84ts.sps

In compiling data for the 1980 and 1984 entries in our time-series data set, we have used the original ASCII data files held by the WIRS Research Team. The layout of these original ASCII data files is slightly different to the versions deposited with, and available from, the UK Data Archive. Specifically, the original ASCII data files include some multi-punched data items. This means that some data items – usually ones arising from questions that permitted multiple responses - are stored on top of one another in a single stack of codes, rather than alongside each other in adjacent columns. An example is the sources of advice listed in response to Question 20b in 1980, where up to 9 response codes are all stacked in column 29 on card 2 of the data file.

This form of data storage is utilised by the Quantum analysis package, which was used in the primary analysis of both the 1980 and 1984 surveys. However, ASCII data in this form cannot be read by SPSS – the package most familiar to WIRS users and our preferred choice for compiling the time-series data. To read multi-punched data into SPSS, one must first ‘explode’ the stacked data items: removing the codes, one-by-one, and depositing each of them into a unique, new location. To continue the example cited above, the nine response codes to Question 20b in 1980 (codes 1 to 9) were extracted from column 29 on card 2 and moved into columns 50-58 on card 60. Code 1s were deposited in column 50, code 2s in column 51 and so on.

The consequence of this procedure is that, in the FILE LIST command, multi-punched data is not read in from the card and column location given in the questionnaire, but from its new ‘exploded’ location. A record of the new card and column locations of ‘exploded’ data items is given in the following tables.

1. ‘Exploded’ multi-punched data items, 1980:

Question number	Original location		New location	
	Card	Column	Card	Columns ¹
23a	1	63	60	30-38
20b	2	29	60	10-18
21b	2	32	60	20-27
39a	4	70	60	50-58
44a	5	20	60	60-68
70a	7	07	60	70-78
75a	7	23	61	10-18
108a	8	49	60	40-49

Notes:

1. Codes are exploded into columns in ascending order, from 1 to 9, followed by 0.

2. 'Exploded' multi-punched data items, 1984:

Question number	Original location		New location	
	Card	Column	Card	Columns ¹
16a	7	11	60	30-37
17a	7	16	60	10-18
22b	7	41	60	20-23
42	11	09	62	10-14
43b (i)	11	11	63	10-19
43b (ii)	11	12	63	20-28
43b (iii)	11	13	63	30-32
48a	11	21	62	55-59
48d (i)	11	24	63	35-43
48d (ii)	11	25	63	45-53
48d (iii)	11	26	63	55-56
49a	11	27	62	60-64
49d (i)	11	30	63	60-68
49d (ii)	11	31	63	70-78
59	12	19	62	30-39
91	14	09	62	15-19
92b (i)	14	11	64	10-18
92b (ii)	14	12	64	20-28
92b (iii)	14	13	64	30-33
97a	14	21	62	65-69
97d (i)	14	24	64	35-43
97d (ii)	14	25	64	45-53
97d (iii)	14	26	64	55-56
98a	14	27	62	70-74
98d (i)	14	30	64	58-66
98d (ii)	14	31	64	67-75
98d (iii)	14	32	64	76-77
105	15	07	62	40-48
132a (i)	17	07	60	60-64
132c (i)	17	09	60	65-69
132a (ii)	17	12	60	70-74
132c (ii)	17	14	60	75-79
132a (iii)	17	17	61	10-14
132c (iii)	17	19	61	15-19
132a (iv)	17	22	61	20-24
132c (iv)	17	24	61	25-29
132a (v)	17	27	61	30-34
132c (v)	17	29	61	35-39
132a (vi)	17	32	61	40-44
132c (vi)	17	34	61	45-49
132a (vii)	17	37	61	50-54
132c (vii)	17	39	61	55-59

Continued...

Question number	Original location		New location	
	Card	Column	Card	Columns¹
132a (viii)	17	42	61	60-64
132c (viii)	17	44	61	65-69
142	18	73	60	40-48
144b	19	21	60	50-54
157a	20	39	62	20-28
164a	21	07	62	50-54

Notes:

1. Codes are exploded into columns in ascending order, from 1 to 9, followed by 0.

Appendix B: Time-Series Variable Map

The following table lists each of the time-series variables that appear within the deposited dataset, along with their source questions in each survey in the series and any notes concerning comparability over time.

Users are advised to consult the six SPSS syntax files (provided as part of the User Guide) in order to establish the precise means by which a particular time-series variable has been derived from the source data.

Key to variable types:

C= Continuous; Cat = Categorical; D = Dichotomous

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Total employees at establishment	TALLEMPS	ZALLEMPS	ZALLEMPS	ZALLEMPS	TOTEMP	TOT11	TOT7 & TOT11	C	
Total employees at establishment (banded)	TALLEMP3 TALLEMP4 TALLEMP5 TALLEMP6 TALLEMP7	Derived from TALLEMPS						Cat Cat Cat Cat Cat	4 bands: 10-24; 25-99; 100-499; 500+ 5 bands: 10-24; 25-99; 100-499; 500-999; 1000+ 6 bands: 10-24; 25-49; 50-99; 100-199; 200-499; 500+ 7 bands: 10-24; 25-49; 50-99; 100-199; 200-499; 500-999; 1000+ 8 bands: 5-9; 10-24; 25-49; 50-99; 100-199; 200-499; 500-999; 1000+
Total female employees at the establishment	TALLFEM	ZTOTWOM ZTOTMEN	ZFEMFULL , ZFEMPRT	ZFEMFULL, ZFEMPRT	MANFUSK, MANFSSK, MANFSK, CLERCF, SUPVF, JRTECHF, SRTECHF, MANAGEF	TOT13, TOT16, TOT19, TOT22, TOT25, TOT28, TOT31 & TOT34	TOT3 & TOT6	C	Relatively high %s missing in 1984 (8%) and 1990 (13%). Other years around 2%. 2011: No part-time/full-time breakdown by gender, so TALLFEM is the same as ZTOTWOM, except that cases where the total number of men and women is different to TALLEMPS are ignored.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Female employees as a percentage of workforce	TFEMPC	Derived from TALLFEM and TALLEMPS						C	See comments on TALLFEM Range: 0-100%
Female employees as a percentage of workforce (banded)	TFEMPC12 TFEMPC3 TFEMPC3B TFEMPC5B	Derived from TFEMPC						Cat Cat Cat Cat	See comments on TALLFEM 10% bands of TFEMPC, plus 0% and 100% 3 bands: 0-30%; 31-70%; 71%+ 3 bands: 0-24%; 25-74%; 75%+ 5 bands: 0-9; 10-24; 25-74; 75-89;
Evaluation of management-employee relations	TSTATIR	MRELATE	MRELATE	MRELATE	P63	169	146	Cat	1980, 1984: Coded to 7-point scale from verbatim 1990: 7 point scale. Codes 2&3, 5&6 combined to match 1998 1998, 2004, 2011: 5-point scale
Any industrial action (from specified list) in past 12 months (excluding lock-outs)	TANYACT	Not yet derived	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M2 M4	147A, B	127A 128A	D	Separate recording for manual and non-manual workers abandoned in 1998
Any strike action in past 12 months	TSTRIKE	GACT	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M4	147A, B	127A 128A	D	See comments for TANYACT 2011: Response codes reduced.
Any non-strike action in past 12 months (excluding lock-outs)	TOTHACT	X	GACTIO01-GACTIO11	GACTIO01-GACTIO04	M4	147A, B	127A 128A	D	See comments for TANYACT 2011: Changes to response codes mean that lock-outs can no longer be excluded.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Single establishment or part of multi-establishment organisation	TSINGLE	ASINGLE	ASINGLE	ASINGLE	A4	3A	3	D	1998, 2004, 2011: 'Sole UK' coded as 'Multi'.
Single establishment, branch office of multi or head office of multi.	TSINGLE2	Derived from TSINGLE and THO						Cat	See notes for TSINGLE and THO.
Formal status of establishment	TSTATUS	ASTATUS	ASTATUS	ASTATUS	A3	2	2A	D	Private sector; public sector. 2011: Interviewer notes added 'Do not prompt' and 'Code Academy schools to 12'.
Formal status of establishment	TSTATUS2	Derived from TSTATUS and TTRADING						Cat	Private sector; public sector trading; other public sector. See comments for TTRADING.
Whether UK or foreign owned organisation (3 categories) (where TSTATUS=1)	TUKFO	ACONTROL	ACONTROL	ACONTROL	P9 F-A11	4D	5	Cat	1980: No 50/50 UK/FO category (code 2 on TUKFO left blank) 1984: not asked for singles, but all assumed to be UK owned 1990: Uses Financial Manager's responses where available 1998, 2004, 2011: Collapses codes (1,2=1) (3=2) (4,5=3) and codes all singles to UK owned for consistency with 1984.
Whether UK or foreign owned organisation (2 categories) (where TSTATUS=1)	TUKFO2	Derived from TUKFO						D	Collapses TUKFO into 2 categories (UK and 50/50; Foreign-owned)

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether part of a UK multi-national (i.e. organisation owns units outside UK) (where TSTATUS=1, TSINGLE=2 and TUKFO=1)	TMULTNAT	ASUBSID	ASUBSID	ASUBSID	P10 FA-12	X	X	D	1990: Uses Financial Manager's responses where available
Whether part of a UK multi-national (i.e. organisation owns units outside UK) (where TSTATUS=1 and TUKFO=1)	TMNC	Derived from TSTATUS, TSINGLE, TUKFO and TMULTNAT						Cat	Differs from TMULTNAT in that singles are explicitly coded on this variable. See notes on TSTATUS, TSINGLE, TUKFO and TMULTNAT
Whether UK/foreign-owned and, if UK-owned, whether part of multi-national.	TINTNAT	Derived from TSTATUS, TSINGLE, TUKFO and TMULTNAT						Cat	Combines data on ownership and internationalisation. See notes on TSTATUS, TSINGLE, TUKFO and TMULTNAT
Organisation's UK employment size (7 bands)	TORGSIZE	Not yet derived	AUKTOT	AUKTOT	P13	6B	4D	Cat	Collapses data into bands used in 1980: 25-99; 100-499; 500-999; 1000-1999; 2000-4999; 5000-9999; 10000+. 1980: bands include first value of next (i.e. 1-100 not 1-99 as in other years). 1990: Trading sector only; Financial Manager responses and some others missing. Some imputed using imputations derived by Alex Bryson & Neil Millward in earlier work. 2004: Some imputations from IDBR.
Organisation's UK employment size (banded)	TORGSIZ3 TORGSIZ4 TORGSZ4B	Derived from TORGSIZE						Cat Cat Cat	3 bands: 25-499; 500-9999; 10000+0000 4 bands: 25-499; 500-1999; 2000-9999; 10000+ 4 bands: 25-99; 100-999; 1000-9999; 10000+ See comments for TORGSIZE.
Whether part of the trading sector [i.e. private sector plus trading public corporations]	TTRADING	ASTATUS1	ASTATUS1	ASTATUS, ASIC_FIN	A3	2	2A	D	1998: Identifies trading public corporations through status indicator and detailed SIC(92) codes.
Whether any Joint Consultative Committees (JCCs) at the establishment	TJCC	DJOINT DISSUES	DJOINT DISSUES	DJOINT DISSUES	L1	137A 120A	120A	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Frequency of JCC meetings (where TJCC=1)	TJCCFREQ	DMEET	DMEET	DMEET	L8	138F	121A	Cat	1998: committee covering widest range of issues 1990: most important committee
Functioning JCC (meets at least every quarter)	TJCCF	Derived from TJCC and TJCCFREQ						D	See notes for TJCC and TJCCFREQ
Influence of JCC (where TJCC=1)	TJCCINF	DINFLUEN	DINFLUEN	DINFLUEN	L11	X	X	Cat	See notes for TJCC.
Any JCC or higher level JCC	TANYJCC1	Derived from TJCC and TJCCHI						D	See notes for TJCC and TJCCHI
Any functioning JCC or higher level JCC	TANYJCC2	Derived from TJCCF and TJCCHI						D	See notes for TJCCF and TJCCHI
Whether JCC worker representative(s) chosen by trade union (where TANYMEM=1 and TJCC=1)	TJCCU	X	X	DAPPOIN1 DAPPOIN5	L7A	138E	121D	D	Focusing on method of election (cf. TJCCU) 2004 and 2011: DSELECT is a less direct question than those available in earlier years, as routed from question about elections
Whether JCC includes union representatives or appointees (where TANYMEM=1 and TJCC=1)	TJCCU2	DSELECT EUJCC	DSELECT EUJCC	DAPPOIN DUNION ECHOSEN ESITON	X	X	X	D	Focusing on presence of union representatives on JCC (cf. TJCCU)
Whether functioning JCC worker representative chosen by trade union (where TANYMEM=1 and TJCCF=1)	TJCCFTU	Derived from TJCCF and TJCCU							See notes for TJCCF and TJCCU
Any JCC at higher level in organisation? (where TSINGLE=2 and THO>1)	TJCCHI	DHIGHLEV	DHIGHLEV	DHIGHLEV	L13	139B	X	D	
Number of JCCs (where TJCC=1)	TJCCNUM	DHOWMAN Y	DHOWMAN Y	DHOWMANY	L3	138A	120A	C	1998, 2004, 2011: if more than one, DK whether all are multi-topic committees
Number of JCCs (banded: 1, 2 3, 4 or more) (where TJCC=1)	TJCCNU4	Derived from TJCCNUM						Cat	See notes for TJCCNUM
Management distributes information on investment plans to employees or their representatives	TINVPLAN	DINVPLAN	DINVPLAN	DINVPLAN	L22A	143A	X	D	1998, 2004, 2011: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Management distributes information on the financial position of the establishment to employees or their representatives	TFINANCE	DFINANCE	DFINANCE	DFINANCE	L22B	143A	X	D	1998, 2004, 2011: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Management distributes information on the financial position of the organisation to employees or their representatives (where TSINGLE=2)	TORGFIN	DWHOLEFI	DWHOLEFI	DWHOLEFI	L22C	143A	X	D	1998, 2004, 2011: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Management distributes information on staffing or manpower plans to employees or their representatives	TSTAFFIN	DSTAFFIN	DSTAFFIN	DSTAFFIN	L20C	143A	X	D	1998, 2004, 2011: does management 'regularly' give... 1984, 1990: restricted to distribution of information 'before the implementation of any changes'
Scope of information provision (i.e. number of areas covered from: investment, finance and staffing).	TINFO	DINVPLAN DFINANCE DWHOLEFI DSTAFFIN	DINVPLAN DFINANCE DWHOLEFI DSTAFFIN	DINVPLAN DFINANCE DWHOLEFI DSTAFFIN	L22A L22B L22C L20C	143A	X	Cat	See comments relating to TINVPLAN, TFINANCE, TORGFIN and TSTAFFIN.
Management holds regular meetings between senior managers and all sections of the workforce	TCONSALL	X	X	DCONSUL1-6	L19	142	X	D	1998: Not restricted to senior managers. Phrase "...as a matter of policy" also dropped. And no mention of "at least once a year". Also see TCONSALL1-3
Meetings between senior managers and all sections of the workforce at least once a fortnight	TCONSAL1	DMEETN DMEETING	DMEETN DMEETING	X	X	X	X	D	2004: Contrary to 1998, does mention 'senior'. But does not use word 'regular', instead asking about frequency.
Meetings between senior managers and all sections of the workforce at least once a month	TCONSAL2	DMEETN DMEETING	DMEETN DMEETING	X	X	X	X	D	TVOICE variables use this to proxy TCONSALL for 2004
Meetings between senior managers and all sections of the workforce at least once every three months	TCONSAL3	DMEETN DMEETING	DMEETN DMEETING	X	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Problem-solving groups	TCIRCLES	DCIRCLES	DCIRCLES	DCIRCLES	L19	X	X	D	1990: Restricted to groups that meet at least once a month. 2004: Wording altered to focus on groups of non-managerial employees (see Kersley et al 2006: 94 for discussion) 2011: Introductory sentence deleted and question modified to delete reference to 'quality circles' (just 'problem-solving groups or continuous improvement groups').
Briefing groups (regular meetings that occur at least monthly between line managers and the workers for whom they are responsible)	TBRIEF	DBRIEF DBRIEFN	DBRIEF DBRIEFN	DBRIEF DBRIEFU DBRIEFN	L19	142	X	D	1998: refers to "a system of briefings for... a work group/section/team" and does not specify who should deliver the briefing Other years refer to meetings between junior / line managers or supervisors and the workers for whom they are responsible. 1990, 2004 and 2011 mention that these are sometimes known as 'briefing groups or team briefings'
Management makes systematic use of management chain for communication	TCHAIN	DCONSUL1-8	DCONSUL1-8	DCONSUL1-6	L19	142	X	D	1998, 2004 and 2011: Phrase "...as a matter of policy" dropped.
Management makes use of newsletters	TNEWS	DCONSUL1-8	DCONSUL1-8	DCONSUL1-6	L19	142	X	D	
Management makes use of suggestion schemes	TSUGGEST	DCONSUL1-8	DCONSUL1-8	DCONSUL1-6 DOTHWAY	L19	142	X	D	1998, 2004 and 2011: Phrase "...as a matter of policy" dropped. 1998 covers suggestion schemes from two angles (DOTHWAY* and DCONSUL*) whereas other years use a single question
Main industrial activity of the establishment (1-digit SIC80: Division level)	TSIC80B	Not yet derived	ASIC80	ASIC_FIN	A1	1A	1A	Cat	1998: recoded from SIC92 2004: see TSIC80 2011: Detailed industry codes on restricted data file only
Broad industry and status	TSECTOR3	Derived from TSTATUS and TSICSUM						Cat	Private manufacturing; Private services; Public sector

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Detailed industry and status (15 categories)	TSECT15	Not yet derived	ASIC80 ASIC92	ASTATUS, ASIC_FIN	A3, A1	1A, 2	1A, 2A	Cat	1980-90: Derived from SIC80 coding 1998,2004: Derived from SIC92 coding 2011: Detailed industry codes on restricted data file only
Main industrial activity of the establishment (4-digit SIC80)	TSIC80	Not yet derived	ASIC80	X	A1	1A	1A	Cat	2004: recoded by NatCen from SIC03 using look-up tables 2011: Detailed industry codes on restricted data file only
Broad industrial activity (manufacturing; services)	TSICSUM	Derived from TSIC80B						D	Manufacturing & extraction taken as SIC80 classes 2 to 4 inclusive. See note for TSIC80B.
Total non-manual employees	TALLNM	ZMGR_TOT ZPRO_TOT ZTEC_TOT ZADM_TOT ZSAL_TOT	ZMNG_TOT ZPRO_TOT ZTEC_TOT ZADM_TOT ZSAL_TOT	ZMNG_TOT ZPRO_TOT ZTEC_TOT ZCLE_TOT ZSAL_TOT	TOTNMAN	TOT8	TOT11	C	1998, 2004, 2011: Set to missing where occ totals don't sum to zallemps. 3% missing in 1998; 6% in 2004; 1% in 2011. 1980-1990: WIRS-specific occupational classification 1998: Defined as SOC(1990) groups 1-4 & 7. 2004: Defined as SOC(2000) groups 1-4 & 7. 2011: Defined as SOC(2010) groups 1-4 & 7.
Non-manual employees as a percentage of the total workforce	TNMPC	Derived from TALLNM and TALLEMPS						C	See comment for TALLNM.
Non-manual employees as a percentage of the total workforce (banded)	TNMPC12 TNMPC3	Derived from TNMPC						Cat Cat	10% bands of TNMPC, plus 0% and 100%. 3 bands: 0-24%; 25-74%; 75%+.
Total males in full time employment	TFTMALE	X	ZMALFULL	ZMALFULL	MANFTM NMANFTM	TOT4 & TOT9	TOT2	C	2011: Gender breakdown for full-time staff dropped.
Total female in full time employment	TFTFEM	X	ZFEMFULL	ZFEMFULL	MANFTF NMANFTF	TOT5 & TOT10	TOT3	C	2011: Gender breakdown for full-time staff dropped.
Total full-time employees	TALLFT	ZALLFTE	ZALLFTE	ZMALFULL ZFEMFULL	MANFT NMANFT	TOT4, TOT5, TOT9 & TOT 10	TOT1	C	2011: Consistency checks amended to reflect the replacement of the gender breakdown with managerial/non-managerial.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Total part-time employees	TALLPT	ZALLPTE	ZALLPTE	ZMALPRT ZFEMPRT	MANPT NMANPT	TOT2 & TOT7	TOT4	C	2011: Consistency checks amended to reflect the replacement of the gender breakdown with managerial/non-managerial.
Part-time employees as a percentage of the total workforce	TPTPC	Derived from TALLPT and TALLEMPS						C	
Part-time employees as a percentage of the total workforce (banded)	TPTPC12 TPTPC3 TPTPC3B TPTPC4B	Derived from TPTPC						Cat Cat Cat Cat	10% bands of TPTPC, plus 0% and 100% 3 bands: 0-5%; 6-40%; 41%+ 3 bands: 0; 1-24%; 25%+ 5 bands: 0; 10-24; 25-49; 50%+
Employees from ethnic minorities as a percentage of the total workforce	TEMPC	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	X	X	X	C	
Employees from ethnic minorities as a percentage of the total workforce (banded)	TEMPC5	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	ZETHNIC ZETHNICP	N27, N28	Q157	Q117	Cat	Changes in question wording. 1998: question included on EPQ 1980: bands are 5-9; 10-19 rather than 5-10; 11-20
Percentage of managers that are female	TMGRFPC	ZMGR_TOT ZMGR_FEM	ZMNG_TOT ZMNG_FFT ZMNG_FPT	ZMNG_TOT ZMNG_FFT ZMNG_FPT	MANAGEF MANAGET	TOT34 TOT35	X	C	1984, 1990 use WIRS-specific occupational classification, whilst 1998 uses SOC90 and 2004 uses SOC2003 - not thought to impair comparability on this variable 2011: No part-time/full-time breakdown so derivation amended to reflect this.
Measure of vertical segregation (Women as % of managers / Women as % of all employees)	TVERSEG	Derived from TMGRFPC and TFEMPC						C	See comments for TMGRFPC and TFEMPC.
Measures of vertical segregation (grouped)	TVERSEG5 TVERSEG3	Derived from TVERSEG						Cat Cat	5 categories: No female mgrs; Women under-represented; Equality; Women over-represented; No male managers 3 categories: Women under-represented; Equality; Women over-represented
Region	TREGION5	X	X	X	REGION	REGION	REGION LOCALA	Cat	1980: use local authority codes to tidy up what appear to be errors in coding of region for Scotland and the North

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Region	TREGION3	Not yet derived	GOR	X	X	X	X	Cat	2011: Region codes on restricted data file only.
Region	TREGION4	Not yet derived	SSR	X	X	X	X	Cat	2011: Region codes on restricted data file only.
Region	TREGION2	X	X	SSR	X	X	X	Cat	
Region	TREGION1	X	X	GOR	X	X	X	Cat	
Region	TREGSSR	Derived from SSR						Cat	Derivation in MergeTS.sps reconciles different labelling of region in different data sets
Region	TREGGOR	Derived from GOR						Cat	See note on TREGSSR
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+; 11+ but DK exactly)	TAGE	AHOWLONG AHOWEST	AHOWLONG AHOWEST	AHOWLONG APREV5YR	X	1C	1B	Cat	1980, 1984: years engaged in main activity 1998: years at current and previous address. Not asked if 11+ years old workplaces and had a previous address. 2004 and 2011: time establishment 'has been in operation' including 'time spent at other addresses'.
Age of workplace including previous addresses (0-4; 5-9; 10+)	TAGE2	Recode of TAGE						Cat	See notes on TAGE
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+)	TAGE3	Recode of TAGE						Cat	As per TAGE but moves the 1998 filter problem cases to code 3, ie. conservatively assumes that their age at current establishment equals total age inc. moves
Age of workplace including previous addresses (0-4; 5-9; 10-24; 25+)	TAGE4	Recode of TAGE						Cat	As per TAGE but moves the 1998 filter problem cases to code 4 on assumption that their total age including missing APREV5YR is 25+ years instead of the 10-24 years recorded for time at their current workplace
Age of workplace including previous addresses ((0-4; 5-9; 10-14; 15-20; 21-24; 25+ years)	TAGE5	AHOWLONG AHOWEST	AHOWLONG AHOWEST	X	X	X	X	Cat	Used for production of TSETUP in MergeTS.sps
Number of years operating at current address (0-4; 5-9; 10-20; 21+)	TTIMHERE	X	X	AHOWLONG	A21	X	X	Cat	2004, 2011: does not so distinguish time at current and previous addresses

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Number of years operating at current address (0; 1; 2; 3; 4; 5-9; 10-20; 21+)	TTIMHER7	X	X	AHOWLONG	A21	X	X	Cat	
Whether always been at current address (where TAGE<=9)	TADDRESS	X	X	ADDRESS2	A22	X	X	D	Restricted to TAGE<=9 to promote comparability.
Status of site before arrival (where TADDRESS=2)	TPREV	X	X	APREV	A25	X	X	Cat	Restricted to TADDRESS=2 to promote comparability.
Decade establishment born (before 1980s, 1980s, 1990s)	TSETUP98	X	X	AHOWLONG ADDRESS2 APREV ALONGDEV	X	X	X	Cat	Needed to obtain TSETUP for 1998
Decade workplace born including moves (except in 1990) (before 1980s; 1980s; 1990s; 2000s)	TSETUP	Derived from TAGE in 1984, TTIMHERE in 1990, TSETUP98 in 1998 and TAGE5 in 2004						Cat	Set up date includes location moves except in 1990 don't have information on time in previous addresses. BE CAUTIOUS ABOUT INFERENCES ON 1990 DATA. 2011: Age bands on TAGE5 not amenable to derivation of TSETUP.
Total employees at establishment 12 months ago	TEMP1AGO	ZEMP1AGO	ZEMP1AGO	ZEMP1AGO	TOTEMP1 Y	TOT36	TOT19	C	
Total employees at establishment 5 years ago	TEMP5AGO	X	X	ZEMP5AGO	X	X	TOT20	C	
Total employees at establishment 6 years ago	TEMP6AGO	ZEMP6AGO	ZEMP6AGO	X	X	X	X	C	
Number of establishments in organisation in the UK	TESTNUM	ASINGLE AESTNUM	ASINGLE AESTNUM	AESTNUM	P12	6A	4C	Cat	In 1980 and 1998, question focuses on 'the organisation'; in 1984, 2004 and 2011 focuses on the 'ultimate controlling company'; in 1990 focuses on the 'ultimate controlling company in the UK'. 1984: 500-996, 997+ rather than 500-999, 1000+ 1990: See comment on TORGSIZE. Multis for whom P12=1 coded to 1 for consistency with 1998.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether establishment is a head office, administrative office or neither (where TSINGLE=2)	THO	AHEADOFF AHEADOF2 ASINGLE KACTIVM1	AHEADOFF AHEADOF2 ASINGLE KACTIVM1	ACONHEAD AHEADOFF KACTIVI	A5	3B	4B	D	1980: Administrative offices not distinguished from other offices 1980, 1998: questions do not mention 'goods and services'
Respondent's gender	TSEX	BSEX	BSEX	BSEX	X	X	Q11D	D	
Respondent's job title	TTITLE	X	BTITLE	BTITLE	A6A A6B	16A	11A	Cat	1998 and 2004: Verbatim responses to BTITLE manually recoded to produce a code frame consistent across years. Does not match BTITLE2 - the code frame used for the cross-section. 2011: Verbatims backcoded to different categories on BTITLEX2.
Whether personnel specialist (as designated by job title)	TSPECIAL	BTITLEX BTITLEX2	BTITLE	BTITLE	A6A, A6B	16A	11A	D	See TTITLE. Definition of "specialist" : personnel, human/manpower resources, or industrial, employee or staff relations in job title.
Human Resources Manager	THR	BTITLEX BTITLEX2	BTITLO2004	BTITLE2	X	X	X	D	See TTITLE.
Manager's personnel and industrial relations responsibilities:									
Pay and conditions	TYOURJ01	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	A11_D1	17A_D1	13A_D1	D	1980: tasks that form part of respondent's job 1984-04: tasks that form part of respondent's job, or job of someone responsible to them. 2004: 'Pay and conditions' constructed by grouping 'rates of pay', 'working hours', holiday entitlements' and 'pension entitlements'. 2011: 'and diversity' was added to code 10 ('Equal opportunities and diversity').
Recruitment and selection	TYOURJ02	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	A11_D3	17A_D3	13A_D3	D	
Training	TYOURJ03	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	A11_D4	17A_D4	13A_D4	D	
Systems of payment	TYOURJ04	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	A11_D5	17A_D5	13A_D5	D	
Staffing/manpower plan	TYOURJ05	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	A11_D8	17A_D8	X	D	
Handling grievances	TYOURJ06	X	X	BYOURJ01-10	X	X	X	D	
Equal opportunities	TYOURJ07	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Health and safety	TYOURJ08	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	X	X	X	D	
Performance appraisals	TYOURJ09	BYOURJ01-13	BYOURJ01-13	BYOURJ01-10	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether responsible for personnel or industrial relations matters at establishment	TMANAGE	BUMANAGE	BUMANAGE	BUMANAGE	A10	X	X	D	1990: Ask if there is someone more senior. 1998, 2004, 2011: Asks if respondent has prime responsibility.
Time spent on employee relations issues	TERTIME	BPROPORT	BPROPORT	BPROPORT	A13A	17B	X	C	
Time spent on employee relations issues (Less than 25%; 25% or more)	TERTIMEA	BPROPORT	BPROPORT	BPROPORT	A13B	17B	X	Cat	1980: asks whether respondent spends "a major part of their time" on employee relations issues. Not directly comparable, so 1980 data coded to separate variable, TERTIMEB (1=major part of time).
	TERTIMEB	X	X	X	X	X	13B	D	
Experience in job	TLENGTH	BLENGTH	BLENGTH	BLENGTH	A9	16C	X	Cat	1980: continuous to 7 years, with 8 year ceiling. TLENGTH is a 6-category variable. TLENGTHB is a 3-way categorical variable to allow comparability with W80. 2011: Soft check added if BLENGTH is greater than the number of years that the workplace has been in existence.
	TLENGTHB	BLENGTH	BLENGTH	BLENGTH	A9	16C	11B	Cat	
Years experience in personnel matters (where TERTIMEA=2)	TSERVICE	X	BSERVICE	BSERVICE	A17	17D	X	Cat.	TERTIMEA filter imposed to promote consistency between years. 2011: BSERVICE deleted.
Years experience in personnel matters (Two years or more; Less than two years) (1980: where TERTIMEB=1; 1984-1998: where TERTIMEA=2)	TSERVICB	X	BSERVICE	BSERVICE	A17	17D	16C	D	TSERVICB is a 2-way categorical variable to allow comparability with 1980. TERTIMEA/TERTIMEB filter imposed to promote consistency between years. 2011: BSERVICE deleted.
Whether any formal qualifications in personnel management (1980: where TERTIMEB=1; 1984-2004: where TERTIMEA=2)	THAVQUAL	BHAVQUAL	BHAVQUAL	BHAVQUAL	A18	17E	16A	D	1980, 1998: only asked if ER is a major part of job. TERTIMEA/TERTIMEB filter imposed to promote consistency between years, but large number of missing values in 1998.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether any personnel or employee relations staff	TASSIST	X	BASSIST	BASSIST	A20	19	15A	D	1998: simultaneously asks any/none and for number 1998, 2004 includes 'secretarial and clerical staff', whereas 1980-90 do not. 1980: only asked if respondent spends major part of time on ER/personnel. Filter <u>not</u> imposed on other years' data in TASSIST. 2011: BASSIST deleted.
Respondent's contact with ER specialist at higher level in the organisation (where TSINGLE=2 and THO=2/3)	TSEPAR	X	BSEPAR	BSEPAR	B2	21B	17	D	1984: only asked of personnel specialists. This filter <u>not</u> imposed on other years' data in TSEPAR. 1980: makes no reference to "separate establishment". 1980 also refers to "reporting" to a higher manager, whereas 1984 and 1990 refer to "contact", while 1998 and 2004 ask if such a person exists. 2011: BSEPAR deleted.
Employee relations representation on board of directors (where TSTATUS=1, TSINGLE=2 and TUKFO=1/2)	TBOARD	BBOARD	BBOARD	BBOARD	B10A, B10B	22B	18B	D	Note if part of a larger private sector organisation but system missing this is because either foreign owned/controlled or DK/NA foreign ownership 1998 only refers to "Board of Directors", rather than main/top governing body.
Whether member of Employers' Association	TEASS	BMEMBER1 - BMEMBER5	BMEMBER1 - BMEMBER5	BMEMBER1- BMEMBER4	B23	23A	21A	D	1998 and 2004: membership of any employers association. 1980-90: membership of an EA that negotiates pay or conditions for its members. 1990: only asked in trading sector. This filter <u>not</u> imposed on other years' data in TEASS. 2011: Text in parenthesis ("either directly or through the parent organisation") converted to filtered text fill

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether member of Trade Association	TTASS	BMEMBER1 – BMEMBER5	BMEMBER1 – BMEMBER5	BMEMBER1- BMEMBER4	X	X	X	X	2011: Text in parenthesis (“either directly or through the parent organisation”) converted to filtered text fill
Whether member of Chamber of Commerce	TCHCOM	BMEMBER1 – BMEMBER5	BMEMBER1 – BMEMBER5	BMEMBER1- BMEMBER4	X	X	X	X	2011: Text in parenthesis (“either directly or through the parent organisation”) converted to filtered text fill
Whether member of Federation of Small Businesses	TFEDSB	BMEMBER1 – BMEMBER5	BMEMBER1 – BMEMBER5	BMEMBER1- BMEMBER4	X	X	X	X	2011: Text in parenthesis (“either directly or through the parent organisation”) converted to filtered text fill
Whether member of some other similar employers’ group	TOTHGP	BMEMBER1 – BMEMBER5	BMEMBER1 – BMEMBER5	BMEMBER1- BMEMBER4	X	X	X	X	2011: Text in parenthesis (“either directly or through the parent organisation”) converted to filtered text fill
Whether management sought employee relations advice from: ACAS/Other gov. agency Management consultants External lawyer External accountant	TADVCE1 TADVCE2 TADVCE3 TADVCE4	BADVIC01- XBADVIC3	BADVIC01- BADVICE3	BADVCE1-8	B18_D1 B18_D2 B18_D5 B18_D6	X X X X	Q20B_D1, Q20B_D15 Q20B_D17 Q20B_D2 Q20B_D6,7 Q20B_D8	D D D D	1980 refers to outside the establishment. 1990 refers to outside the organisation. 1998 code frame makes clear it’s outside the organisation. 2004: refers to ‘information or advice’ and show-card listed more govt options than in 1998 2011: Response codes updated i.e. ‘Department of Trade and Industry’ replaced with ‘Department for Business, Innovation and Skills’, ‘Business Link/Small Business Service’ replaced with ‘Business Link/Enterprise Directorate (formerly Small Business Service)’.
Whether any union members among employees at establishment	TANYMEM	EANYEMP	EANYEMP	EANYEMP	C2	25A, 74A	22, 51	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION	
		2011	2004	1998	1990	1984	1980			
Number of union members at the workplace (Version A)	TNUMMEMA	EANYEMP ZUNIMEM ZUNIPC	EANYEMP ZUNIMEM ZUNIPC	EANYEMP, ZTU_MEM, ZTU_PC	TOTEMP UN	26C, 26E, 75C, 75E	23C, 54A, 54B	C	1980: Full-time employees only (won't always match TANYMEM) 2011: Interviewer instructions on DK changed slightly.	
Number of union members at the workplace (Version B)	TNUMMEMB	Derived from TNUMMEMA						C	Recodes cases on TNUMMEMA where DK if any members to 0. See notes for TNUMMEMA.	
Union density at the workplace (Version A)	TUDENSA	TANYMEM ZUNIMEM ZUNIPC TALLEMPS	Derived from TNUMMEMA and TALLEMPS (in annual syntax files, rather than in MergeTS.sps)						C	See notes for TNUMMEMA.
Union density at the workplace (Version A – banded)	TUDENS6A	Derived from TUDENSA.						Cat	0% plus 6 bands: 1-24%; 25-49%; 50-74%; 75-89%; 90-99%; 100% See notes for TNUMMEMA.	
Union density at the workplace (Version B)	TUDENSB	Derived from TNUMMEMB and TALLEMPS						C	See notes for TNUMMEMB.	
Union density at the workplace (Version B – banded)	TUDENS6B	Derived from TUDENSB.						Cat	0% plus 6 bands: 1-24%; 25-49%; 50-74%; 75-89%; 90-99%; 100% See notes for TNUMMEMB.	
Total number of unions present (where TANYMEM=1)	TUNINUM	ZUNIONUM	EUNIONUM EUNIONCK	EUNIONUM	C9D	X	X	C	1980, 1984: possible double-counting between unions mentioned for manuals and those mentioned for non-manuals precludes derivation of a single sum. 2011: Filter replaced with hard checks and wider range on ZUNIONUM.	
Number of unions present (banded: 1,2,3,4,5,6+) (where TANYMEM=1)	TUNINUM6	Derived from TUNINUM						Cat	See notes on TUNINUM	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Total number of recognised unions (where TANYMEM=1)	TTOTREC	ZUNIMEM ZUNIPC ZANYMEM ZUNIONUM ETOTREC1 ETOTREC2	ETOTREC EUNIONUM	ETOTREC, EUNIONUM	TOTRECUN	X	X	C	2004: ETOTREC converted to XTOTREC in recogfix syntax 1980, 1984: possible double-counting between unions mentioned for manuals and those mentioned for non-manuals precludes derivation of a single sum 2011: Introductory sentence on number of separate unions or independent staff associations with members at the workplace deleted and text added to clarify that non-recognised unions should be included. Questions also amended to collect data on recognition in workplaces with one union or multiple unions with members separately.
Number of recognised unions (1,2,3+) (where TRECOC=1)	TTOTREC3	Derived from TRECOC and TTOTREC						Cat	
Whether any union is recognised for collective bargaining (where TANYMEM=1)	TRECOC	ETOTREC1 ETOTREC2 ZUNIONUM	ETOTREC, EUNIONUM	ETOTREC, EUNIONUM	TOTRECUN	27A, 76A	24A, 53A	Cat	Cases where DK/NA if members present coded to 'No members'. Cases where members present but DK/NA if recognition coded to "No recognition but members". 2011: Filter on EUNIONUM replaced with hard-checks and range widened. Changes to structure of ETOTREC.
Whether any union is recognised for collective bargaining (where TANYMEM=1)	TRECOC2	Derived from TRECOC						D	Simple dichotomy: recognition; no recognition.
Whether full or partial recognition	TRECFP2	Derived from TRECOC and TJCCTU						Cat	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Number of employees covered by collective bargaining	TALLCOV	FSOC1- FSOC9 XFSOC11- XFSOC91 FCONS ZMGR_TOT- ZROU_TOT TALLEMPS TRECOCG	FSOC1- FSOC9	FSOC1- FSOC9	Derived from TCOVPC	34A, TOT3, 83A, TOT8	X	C	2004: uses edited FSOC and LOG settlement data from "Recoding FSOC to account for PRBs in England and Wales.sps" 1998: Uses edited FSOC and LOG data from Fsocfix.sps 2011: Includes editing carried out in the separate syntax file in 2004 and hence a larger range of variables were used in the derivation included in the GET syntax file.
Percentage of employees covered by collective bargaining	TCOVPC	FSOC1- FSOC9 XFSOC11- XFSOC91 FCONS ZMGR_TOT- ZROU_TOT TALLEMPS TRECOCG	Derived from TALLCOV & TALLEMPS	Derived from TALLCOV & TALLEMPS	PTOTEMPC (from C19)	Derived from TALLCOV & TALLEMPS	X	C	See comments on TALLCOV.
Percentage of employees covered by collective bargaining (banded)	TCOVPC6 TCOVPC7 TCOVPC4 TCOVPC3 TCOVPC2	Derived in same vein as TCOVPC (in annual syntax files, rather than in MergeTS.sps, with exception of TCOVPC2, TCOVPC4)						Cat Cat Cat Cat Cat	6 bands: 100%; 80-99; 50-79; 20-49; 1-19; None 7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None 4 bands: 100; 50-99; 1-49; None 3 bands: 50-100%; 1-49%; None 2 bands: 50-100%; None-49%

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether any employees at establishment covered by collective bargaining	TANYCOV	FSOC1-FSOC9 XFSOC11-XFSOC91 FCONS ZMGR_TOT - ZROU_TOT TALLEMPS TRECOC	FSOC1-FSOC9	FSOC1-FSOC9	PTOTEMPC (from C19)	Derived from TALLCOV & TALLEMPS	X	D	2004 and 1998: has more valid cases than TCOVPC* variables because syntax recovers some coverage cases with only partial FSOC data
Percentage of employees covered by collective bargaining (banded)	TFCOVER	FCOVER FCOVERT	FCOVER	FCOVER	X	X	X	Cat	7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None FCOVER does not correspond with FSOC information in some cases (esp in 1998): not to be used as sole indicator of collective bargaining. Use TCOVPC in preference as main indicator.
Percentage of employees covered by collective bargaining (banded)	TFCOVPC7 TFCOVPC6	FSOC1-FSOC9 FCOVER	FSOC1-FSOC9 FCOVER	FSOC1-FSOC9 FCOVER	X	X	X	Cat	7 bands: 100%; 80-99; 60-79; 40-59; 20-39; 1-19; None 6 bands: 100%; 80-99; 50-79; 20-49; 1-19; None Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER not consistent in 1998 and 2004, so use TCOVPC7 and TCOVPC6 in preference as main indicators.
Whether any employees at establishment covered by collective bargaining	TFCOVDUM	FSOC1-FSOC9 XFSOC11-XFSOC91	FSOC1-FSOC9 FCOVER	FSOC1-FSOC9 FCOVER	X	X	X	D	Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER not consistent in 1998 and 2004, so use TANYCOV in preference as main indicator. 2011: FCOVER not used.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether any employees at establishment covered by collective bargaining	TFCOVDUM2	Not yet	FSOC1-FSOC9 FCOVER EPAYA	FSOC1-FSOC9 FCOVER EPAYA	X	X	X	D	Based on edited FSOC, LOG pay settlement and FCOVER. See discussion in get04ts.sps. FCOVER and EPAYA not consistent in 1998 and 2004, so use TANYCOV in preference as main indicator.
Any multi-employer bargaining (where TRECOG=1)	TNATBARG	FSOC1-FSOC9 XFSOC11- XFSOC91 TRECOG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	1980: Missing where more than 2 bargaining units of the same type and no m/e bargaining in surveyed units. 1984, 1990: as above, but only one unit of each type surveyed 1980-90: uses data on most important level of negotiations, since 1998 questions only permit one response. 1998-2004: Uses edited FSOC data
Any multi-site bargaining (where TRECOG=1)	TORGBARG	FSOC1-FSOC9 XFSOC11- XFSOC91 TRECOG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	See comments for TNATBARG.
Any workplace level bargaining (where TRECOG=1)	TESTBARG	FSOC1-FSOC9 XFSOC11- XFSOC91 TRECOG	FSOC1-FSOC9	FSOC1-FSOC9	D7, F7	43A, 92A	39B, 44B, 70B, 75B	D	See comments for TNATBARG.
Pay of uncovered workers set at higher level in organisation (where TCOVPC4=2,3 or 4)	TEXTSET	FSOC1-FSOC9 XFSOC11- XFSOC91	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	1980: Missing due to absence of coverage data (TCOVPC4). 1998-2004: Uses edited FSOC data
Pay of uncovered workers set at higher level in organisation (where TCOVPC4=2,3 or 4)	TORGSET	FSOC1-FSOC9 XFSOC11- XFSOC91	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	See comments for TEXTSET
Pay of uncovered workers set at workplace (where TCOVPC4=2,3 or 4)	TESTSET	FSOC1-FSOC9 XFSOC11- XFSOC91	FSOC1-FSOC9	FSOC1-FSOC9	D17, D25, D26 F17, F25, F26	48, 49 97, 98	X	D	See comments for TEXTSET

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Locus of decision making within main pay determination arrangement (17 categories)	TPAYDET	Derived from TNATBARG to TESTSET (in annual syntax files, rather than in MergeTS.sps)						Cat	Categories separated according to values of TCOVPC3 1998: 44 cases coded to 6 where there is reported to be coverage but no recognition (so TNATBARG – TESTBARG missing)
Union membership arrangements (where TRECOG=1)	TCLSHOP	X	X	EKEEPJOB EOUGHTO	E2 G2	52A 101A	31A 62A	Cat	2004: no longer asked W98: Two distinct questions W80-80: joining manual and non-manual data W80: No code 2 possible “Strong recommendation”: coded to 3 “Neither”. <i>Wording:</i> W80: arrangements for “...any workers” W84,90: for “...any groups of workers” W98: for “...any employees”
Pre-entry closed shop (where TCLSHOP=1)	TPREENT	X	X	EHAVETO	E6 G6	54A 103A	31B, 32A 62B, 63A	D	2004: no longer asked
Whether managers try to find out if potential recruits are union members (where TANYMEM=2)	TCHECKS1	X	CCHECKS	ECHECKS	C8	X	X	Cat	2004: Question no longer located in the section on union membership 2011: Dropped question on whether managers check whether potential recruits are union members.
Whether managers try to find out if potential recruits are union members	TCHECKS2	X	CCHECKS	ECHECKS	X	X	X	Cat	1990: only asked where no union members. See TCHECKS1. 2011: Dropped question on whether managers check whether potential recruits are union members.
Any check-off system present (where TANYMEM=1)	TCHECKOF	EDEDUCT	EDEDUCT	EDEDUCT	C44	39	37B 68B	D	1980: Only asked where recognised unions. This filter <u>not</u> imposed on other years’ data in TCHECKOF.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any reps of recognised unions (where TRECOC=1)	TUREP	Not yet derived	ESTEWARD	ESTEWARD	C34M C34N C34B	35B 84B	27B 58B	D	1980-90: Specific instruction to include senior stewards (although often ignored in 1990) 1980, 1984: not restricted to recognised unions 1990, 1998, 2004: restricted to reps of recognised unions with members
Number of reps of recognised unions (where TUREP=1)	TUREPNUM	Not yet derived	ESTEWNUM	ESTEWNUM	C34M C34N C34B C38	35B 84B	27B 58B	C	See comments for TUREP.
Whether any full-time union reps (where TUREP=1)	TFTUREP	Not yet derived	ESTEWTIM	ESTEWTIM	C40M C40N C40B	37A 86A	29B 60B	D	1980-90: full-time stewards acknowledged by management as senior stewards 1998, 2004: any full-time union reps (i.e. for comparability, must assume all full-time reps would be acknowledged as senior)
Whether reps from another establishment in the organisation cover members at this establishment (where TSINGLE=2 and TUREP=2)	TEXTREP	Not yet derived	ESTEWEEXT	ESTEWEEXT	C36M C36B C36N	35D 84D	X	D	1998, 2004: only asks about external reps of largest recognised union 1990: external reps of recognised unions 1984: external reps of any unions
Summary of union rep presence (Full-time; Part-time; Recognition but no reps; No recognition)	TREPSUM	Derived from TRECOC, TUREP and TFTUREP						Cat	Where TUREP missing, coded to 3 Where TFTUREP missing, coded to 2
Summary of union rep presence (Local rep; External rep only; Recognition but no reps; No recognition)	TREPSUM2	Derived from TRECOC, TUREP and TEXTREP						Cat	1980: Cannot identify cases with external reps – left in category 3 (no reps)
Any non-union reps, excluding health and safety reps?	TOTHREPS	Not yet derived	EOTHREPS	EOTHREPS	C41	X	X	D	1998: Question wording ambiguous. Could include reps of non-recognised unions. TOTHREP2 tries to resolve this.
Number of non-union reps, excluding h&s reps (where TOTHREPS=1)	TNUMREPS	Not yet derived	ENUMREPS	ENUMREPS	C42	X	X	C	1998: See comment on TOTHREPS Some very large values in some years.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any non-union reps, excluding health and safety reps? (where TANYMEM=2)	TOTHREP2	Not yet derived	EOTHREPS	EOTHREPS ECHOSEN	C41	X	X	D	1998: Uses ECHOSEN to try and remove reps of non-recognised unions. See TOTHREPS.
Number of negotiating groups (1; 2; 3+) (where TRECOG=1)	TNGROUP1	X	EJOINT EGROUPS	EJOINT EGROUPS	C18	X	X	Cat	1980, 1984: recorded separately for manual and non-manual data - possibility of double-counting precludes derivation 1998 and 2004: TNGROUP1 assumed to be 1 where TTOTREC=1 2011: EGROUPTS not asked
Number of negotiating groups (1; 2; 3+) (where TTOTREC>1)	TNGROUP2	X	EJOINT EGROUPS	EJOINT EGROUPS	C18	X	X	Cat	1980, 1984: recorded separately for manual and non-manual data - possibility of double-counting precludes derivation 2011: EGROUPTS not asked
Any profit-related payments or bonuses (exc. deferred schemes) (where TTRADING=1)	TPRPAY	FPROF	FPROF	FVARPAY1 – FVARPAY6	K24_D1	X	X	D	1990 wording more explicit 1990: “does company operate...” 1998: “do any employees at this establishment receive payments or dividends from ...” 2004, 2011: Do any employees at this workplace receive profit-related payments or profit-related bonuses?
Any deferred profit-sharing schemes (where TTRADING=1)	TDPROF	X	X	FVARPAY1 – FVARPAY6	K24_D2	X	X	D	1990 wording more explicit 1990: “does company operate...” 1998: “do any employees at this establishment receive payments or dividends from ...” 2004: deferred schemes only asked about in panel. 2011: not asked
Any profit-sharing scheme (profit-related payments OR deferred profit-sharing scheme) (where TTRADING=1)	TPROFSH	X	X	FVARPAY1 – FVARPAY6	K24_D1 K24_D2	144B	X	D	See comments on TPRPAY and TDPROF. 1984: “does company operate...” 2004: deferred schemes only asked about in panel 2011: not asked

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any share-ownership schemes with employee participation (where TTRADING=1)	TSHOWN	X	FSHAR1-FSHAR6 FNONWHO	FVARPAY1 – FVARPAY6	K24 K29	144B, E	112A, D	D	1980: Specific question 1984-98: One code on a general question 1984, 90: make explicit mention of share <i>option</i> schemes 1990: refers to two specific types of scheme, plus catch-all 'other' 1980-90, 2004: Coded to 'No' if no employees at the workplace are actually participating, for comparability with 1998 data which focuses on cases where employees receive payments or dividends. 2004: asks about 4 specific schemes and one general catch-all. Only asks about non-managerial participation 2011: FNONWHO dropped, so uncertain whether any non-managerial employees participated in any share-ownership schemes.
Any share-ownership schemes with eligible employees (where TTRADING=1)	TSHOWN2	X	FSHAR1-FSHAR6 FSHARWHO	FVARPAY1 – FVARPAY6 FSHARWHO	K24 K26	144B, D	112A, C	D	See notes on TSHOWN. 2004 and 1998: non-managerial employees
Any share-ownership schemes (where TTRADING=1)	TSHOWN3	X	FSHAR1-FSHAR6	X	K24	144B	112A	D	See notes on TSHOWN
Percent participation in share-ownership schemes (where TTRADING=1 and TSHOWN=1)	TSHOPART	X	FNONWHO FSHAREXACT	FNONWHO	K29	144E	112D	Cat	2004 and 1998:% non-managerials participating 2011: FNONWHO dropped, so uncertain whether any non-managerial employees participated in any share-ownership schemes.
Whether any employees receive merit pay	TMERIT	FPERF1 FPERF2 FPERF3	FPERF1 FPERF2 FPERF3	X	k3a to k3h	X	X	D	1990: questions only asked where 5+ employees for the single-digit occupation concerned, so lot of (non-random) missing values. Could considerably hamper comparability.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether any employees receive payments-by-results	TPERFP	FPERF1 FPERF2 FPERF3	FPERF1 FPERF2 FPERF3	FVARPAY1- FVARPAY6	k1a_d1, k1a_d2, k1a_d3 thru to k1h_d1, k1h_d2, k1h_d3	132ai_d1 132aai_d1 132aiii_d1 132aiv_d1 132av_d11 32avi_d1 132avii_d1 q132aviii_ d1	X	D	1984: any of 8 occupational/gender groups paid by results 1990: questions only asked where 5+ employees for the single-digit occupation concerned. 1998: very different format to question liable to lead to under-reporting. See Kersley et al 2006: 190-191 and Millward et al. 2000: 212-213 Could all considerably hamper comparability.
Whether any employees receive merit pay or payments-by-results	TMERPERF	FPERF1 FPERF2 FPERF3	FPERF1 FPERF2 FPERF3	X	k1a_d1, k1a_d2, k1a_d3 thru to k1h_d1, k1h_d2, k1h_d3 k3a to k3h	X	X	D	1990: questions only asked where 5+ employees for the single-digit occupation concerned. Could considerably hamper comparability.
Whether any employees receive individual-based payments-by-results	TINDPBR	FMEASUR1 TO FMEASUR5 XFMEASU	FMEASUR1 TO FMEASUR5	FMEASUR1 TO FMEASUR4	k1a_d1 to k1h_d1	132ci_d1, 132cii_d1 132cii_d1 132ciii_d1 132civ_d1 132cv_d1 132cvi_d1 132cvii_d1 132cviii_d 1	X	D	See notes on TPERFP 1984: any of 8 occupational/gender groups 1990: questions only asked where 5+ employees for the single-digit occupation concerned 1998: non-managerial employees only

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether any employees receive group, establishment or organization based payments-by-results	TCOLPBR	FMEASUR1 TO FMEASUR5 XFMEASU	FMEASUR1 TO FMEASUR5	FMEASUR1 TO FMEASUR4	k1a_d2, k1a_d3 thru to k1h_d2, k1h_d3	132ci_d2, 132cii_d2, 132cii_d2, 132ciii_d2, 132civ_d2, 132cv_d2, 132cvi_d2, 132cvii_d2, 132cviii_d 2,132ci_d3 132cii_d3, 132cii_d3, 132ciii_d3, 132civ_d3, 132cv_d3, 132cvi_d3, 132cvii_d3 132cviii_d 3	X	D	See TPERFP and TINDPBR
Any employees currently on fixed term contracts of less than one year?	TTEMPLYR	X	X	JTEMPLYR	N23	162	142	D	1984, 1990: Interviewer notes specifically exclude YTS and sandwich students 1998: wording broadened to include "employees working on a temporary basis". But only asks about current situation, no 'in the last 12 months' 2004, 2011: not available because don't ask about length of temp/fixed term employee contracts WERS records number of employees in 1980, 1984 and 1990, but not 1998.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any employees currently on fixed term or temporary contracts?	TFIXTEMP	ZFIXTERM ZANYTEM	ZFIXTERM ZANYTEM	JTEMPLYR JTEMPMYR	X	X	X	D	2004: asked on EPQ for number and if DK follow up on if any 1998: separately identifies those on contracts of <1 yr and 1+ years in main body of questionnaire. Reference to temporary basis confined to JTEMPLYR WERS records % (6 bands) in 1998; records number in 2004. 2011: Soft check added to ZFIXTERM.
Any agency temps? 1980: in past month 1984: last 12 months 1998, 2004: 'presently'	TAGENCY	ZAGENCY ZANYAGY	ZAGENCY ZANYAGY	JAGENCY	X	163	141	D	1980: 'temporary assignment from an employment agency in the past month' 1984: 'temporary assignment from a private employment or placing agency in last 12 months' 1998, 2004: 'presently working here' rather than any time in the last 12 months 2004: in EPQ asks for N agency workers then follow up if any if DK N 2011: Interviewer instructions on ZAGENCY amended to emphasize that agency workers should not be included in the total number of employees at the workplace and soft check added. In each year we also have number of agency workers. In 1998 and 2004, we have occupations they are in
Any freelance workers in last 12 months (or 'presently' for 1998, 2004 and 2011)?	TWRKFREE	JWRKFREE	JWRKFREE	JWRKFREE	N25	164	140	D	1998, 2004 and 2011: uses term "presently", rather than "in the last 12 months"

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any homeworkers who are not employees?	THWORKER	JNEMPHM	JNEMPHM	JNEMPHM	N25	164	136a	D	1998, 2004 and 2011: explicit focus on non-employee homeworkers (outworkers not mentioned and employees working from home covered on JHOMWRK); implicit focus on use at time of interview 1984/90: any use of homeworkers/outworkers in last 12 months 1980: 'ever use' homeworkers/outworkers. Q137a implies question is about non-employees, rather than employees who work at home.
Any employees working at/from home?	THOMWRK	Not yet derived	JHOMWRK	JHOMWRK	X	X	X	D	2004: based on dummy variable 1998: based on categorical variable
Any shift-working?	TSHIFT	JTIMEAR1 TO JTIMEAR3	JTIMEAR1 TO JTIMEAR3	JTIMEAR	N18	158a	113a	D	1990: Adds 'currently' 1998: refers to non-managerial employees only
Any reductions in the workforce in the last 12 months?	TREDUCT	X	X	JREDUCT	N10	151a	105a	D	1980: simply refers to 'reductions in the workforce', rather than 'reductions in any section or sections of the workforce' Note: these could be voluntary or involuntary reductions – see TREDMET.
Means of achieving workforce reductions in last 12 months (where TREDUCT=1) 1 Natural wastage 2 Redeployment 3 Early retirement/ voluntary redundancy 4 Compulsory redundancy	TREDMET1 – TREDMET4	X	X	JREDMET1-JREDMET5	N12	151c –YET TO DO CAUSE NEEDS EXPLODING	105b – YET TO DO CAUSE NEEDS EXPLODING	D	2004 EPQ asks for numbers of quits and redundancies, but as not preceded by TREDUCT type question, not comparable

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Reasons for workforce reductions in last 12 months (where TREDUCT=1) 1 Lack of demand for products/services 2 Shortage of materials 3 Automation 4 Reorganization of work 5 Improved efficiency 6 Industrial disputes 7 Budget restrictions 8 Subcontracting of work 9 Impending closure 10 Staff shortages	TREDRE01-TREDRE10	X	X	JREDREA1-JREDREA8	N11	151b – YET TO DO NEEDS EXPLODING	X	D	2004: JREDREA* only asked with respect to redundancies
Sub-contracted activities: 1 Cleaning 2 Security 3 Catering 4 Building maintenance 5 Printing / photocopying 6 Payroll 7 Transport of documents / goods 8 Computing services 9 Training 10 Recruitment 11 Temp filling vacant posts	TNONEM1-TNONEM11	JNONEM01-JNONEM11	JNONEM01-JNONEM11	JNONEM01-JNONEM12	N29	X	X	D	1998: refers to “independent contractors” 1990: refers to people who are not employees of the establishment or organization. 1998-2011: extends list to TNONEM8-11
Recruited any permanent staff in last 12 months?	TANYREC	X	X	ZCOMMWOR	N16	155a	X	D	2004: missing. Instead management asked if any vacancies in LOG in last 12 months (CLOGVAC). 1998: specific instruction to include those who arrived and departed within the one year

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Single or multiple product(s)/ service(s)? (where TTRADING=1)	TPROSER	KPROSER	KPROSER	KPROSER	P22, FA20	8b	8a	D	Routing errors boost number of user-missing values in both 1990 and 1998. 2004 and 2011: only asked if trading externally (ASINGLE=1 OR KACTIVM<=2). 1998: only asked if trading externally (KACTIVI<=2) 1984, 1990: only asked of sites not classified as head offices or admin offices 1980: only asked of workplaces classified during interview as 'manufacturing' Note: 1984-1980: high % trading sector not asked raising questions about value of this data item
Trend in value of sales for main products or services (where TTRADING=1)	TVALSAL	X	X	KVALSAL	P55 FA95	13B	9	Cat	1980: <i>demand for</i> main products or services 1990: priority given to responses from Financial Manager, where both responses recorded. 1990, 1998: Routing errors boost number of user-missing values.
Labour costs as a proportion of sales revenue (trading sector) or operating costs (non-trading sector)	TLABCOST	KPROSAL	KPROSAL	KPROSAL	P56 A33	13C 15B	X	Cat	1990: Many cases not asked question (specifically, where TRADING=1 and (TSINGLE=1 or THO=1)). These cases coded to dedicated code 8 on TLABCOST. Non-response high in all years.
Whether establishment sells its goods/services outside its own organisation (where TTRADING=1 and (TSINGLE=1 or THO=3))	TSELLS	kactivm1 kactivm2 kactivm3 kactivm4 kactivs1 kactivs2	kactivm1 kactivm2 kactivm3 kactivm4 kactivs1 kactivs2	KACTIVI	P25, P34, P43 FA23, FA46, FA69	9B 10B 11B	X	D	1984, 1990: automatically set to 'Yes' where TSINGLE=1 and THO=3 and respondent does not say that the <i>majority</i> of good/service is sold within their own organization.
Percentage of output sold to largest customer (where TSELLS=1)	TLARGE	X	KLARGE	KLARGE	P26, P35, P44 FA24, FA47, FA70	X	X	Cat	1990: Continuous variables grouped into 1998 bands 2011: KLARGE dropped.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Location of principle market for goods/services (where TSELLS=1)	TMARKET	KMARKET	KMARKET	KMARKET	P27, P36, P45 FA26, FA49, FA72	9C 10C 11C	X	Cat	
Number of competitors in market (where TSELLS=1)	TCOMPET	KCOMPET	KCOMPET	KCOMPET	P28, P37, P46 FA27, FA50, FA70	9D 10D 11D	X	Cat	1984, 1990: Restricted to TSELLS=1 for comparability with 1998 and 2004
Degree of competition in market for main product/service (where TSELLS=1)	TDEGREE	KDEGREE	KDEGREE	KDEGREE	X	X	X	Cat	
Amount of competition from overseas suppliers (where TSELLS=1)	TOVRSEA	KOVRSEA	KOVRSEA	KOVRSEA	X	X	X	Cat	
UK market share for main product/service (where TSELLS=1)	TPCTSHAR	KPCTSHAR	KPCTSHAR	KPCTSHAR	X	X	X	Cat	
Current state of market for main product/service (where TSELLS=1)	TSTAMAR	KSTAMAR	KSTAMAR	KSTAMAR	X	X	X	Cat	
If interviewed at establishment (rather than a regional or head office, or more than one site)	TLOCATE	MQLOC	MQLOC	MQLOC	MQLOC	Address Record Form (CARD 3 COLS 19-20)	3	D	
Evaluation of financial performance compared with other establishments in same industry (where TTRADING=1)	TESTPER1	KESTPER1	KESTPER1	KESTPER1	P59 FB3, FB4	14A	10B	Cat	1980: No further clarification within 'Better' or 'Below'; 'Other ans.' (code 7) recoded to 'DK/NA' (code 9). 1990: Those without clarification (i.e. just 'Better' or 'Below') coded to 2 and 4. Priority given to Financial Manager's response where both recorded. Labels for P59 codes 4 and 5 on deposited WIRS90 data file incorrectly reversed – corrected file deposited Jan 2002. Coding scheme for P59 detailed on p.86 of User Guide.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Evaluation of labour productivity compared with other establishments in same industry (where TTRADING=1)	TESTPER2	KESTPER2	KESTPER2	KESTPER2	P58 FB6	X	X	Cat	1990: comparison is simply with "other similar workplaces"
Evaluation of quality of product/service compared with other establishments in same industry	TESTPER3	KESTPER3	KESTPER3	KESTPER3	X	X	X	Cat	No trading sector filter necessary: asked of all cases in both years.
Management collects information on labour costs	TCOLLEC1	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d6	X	X	D	1990: refers to information collected <u>and used</u> to review performance and policies on an annual or more frequent basis 1998, 2004: "any of the following records kept for this establishment?"
Management collects information on productivity	TCOLLEC2	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d5	X	X	D	See comments for TCOLLEC1
Management collects information on absenteeism	TCOLLEC3	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d2	X	115a	D	See comments for TCOLLEC1. 1980: specific question on records of 'absence from work'
Management collects information on workforce training	TCOLLEC4	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	B20_d7	X	X	D	See comments for TCOLLEC1
Management collects information on gender mix of workforce	TCOLLEC5	X	X	IPRACTI1 – IPRACTI6	B20_d10	X	X	D	See comments for TCOLLEC1
Management collects information on ethnic mix of workforce	TCOLLEC6	X	X	IPRACTI1 – IPRACTI6	B20_d9	X	X	D	1990: whether information on ethnic mix of workforce is collected and used as per comment or TCOLLEC1 1998: whether keep employee records with ethnic origin identified
Management collects information on sales/fees/budget	TCOLLEC7	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on costs	TCOLLEC8	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on profits	TCOLLEC9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on quality of product or service	TCOLLEC10	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	
Management collects information on labour turnover	TCOLLEC11	KRECPER1- KRECPER9	KRECPER1- KRECPER9	KRECPER1- KRECPER9	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Arrangements for dealing with health and safety (detailed)	THANDS	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL5 XICONSU1 TO XICONSUL3	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3	L16	140A	126A	Cat	1998, 2004: question format very different from previous years and no showcard used.
Arrangements for dealing with health and safety	THANDS3	X	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3 DWHICH01 TO DWHICH14, D1WHI01 TO D1WHI14	ICOMMTEE IJOINT IOTHREP ICONSUL1 to ICONSUL3 DWHICH01 TO DWHICH12	X	X	X	Cat	1998, 2004: Unlike THANDS and THANDS2 this uses information from Section D 2011: Managers asked to state 3 issues discussed most often by committee, rather than all issues discussed.
Joint committee that discusses health and safety	THANDSCOM	X	ICOMMTEE DWHIDH01 TO DWHICH14, D1WHI01 TO D1WHI14	ICOMMTEE DWHICH01 TO DWHICH12	L16	140A	126A	D	1998, 2004: Unlike THANDS and THANDS2 this uses information from Section D 2011: Managers asked to state 3 issues discussed most often by committee, rather than all issues discussed.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Whether employee reps on health and safety committee are chosen by unions or staff assocs. (where TANYMEM=1)	TAPPHS	X	ICOMMTEE DWHIDH01 TO DWHICH14, D1WHI01 TO D1WHI14 ISELCOM1 TO ISELCOM4, ISELREP1 TO ISELREP2 DSELECT1 TO DSELECT4	IREPNUM DAPPOIN	L18	140B	X	D	1998: Compiled from two questions; format very different from previous years 2004: format different to other years 2011: Managers asked to state 3 issues discussed most often by committee, rather than all issues discussed.
Any of specified injuries in last 12 months	TINJURY	IINJURY1 TO IINJURY8	IINJURY1 TO IINJURY8	IINJURY1 TO IINJURY8	P3	X	X	D	1998: showcard includes physical assault and broadens other categories (may explain why incidence of injuries is much higher than 1990) 2004: changes to showcard once again though N codes is the same
Number of injuries in last 12 months	TNUMINJ	INUMINJ	INUMINJ	INUMINJ	P4	X	X	C	Caution needed: See comments on TINJURY.
Whether formal procedures for dealing with collective disputes	TPROCCOL	GPROCIS1- XGPROCIS 3	GPROCEDU	GPROCEDU	J1_D1	120A	83A	D	1998, 2004: explicitly refer to 'collective disputes' and only ask about non-managerial employees. 2011: Changes to structure of questions.
Whether formal procedures for dealing with individual grievances	TPROCGRV	HPROCEDU	HPROCEDU	HPROCEDU	J1_D3	120C	83C	D	1998: only asks about non-managerial employees.
Whether formal procedures for dealing with discipline and dismissals other than redundancies	TPROCDIS	HOTHPRO	HOTHPRO	HOTHPRO	J1_D2	120B	83B	D	1998: only asks about non-managerial employees. However source-books suggest that, in earlier years, few workplaces differentiated between grades.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Number of employees dismissed in last 12 months (other than redundancies)	TDISNUM	ZDISMISS	ZDISMISS	ZDISMISS	J36, J37	131A 131B	107A	C	1998, 2004 and 2011 can be expected to produce lower estimates than 1980-1990. 1998: permanent employees only. 2004, 2011: N employees on payroll 12 months ago who have been dismissed (so omits those hired and dismissed within the year)
Have any employees received a formal written warning in the last 12 months?	TWARNING	HSANCT1 TO HSANCT8	HWARNING	HWARNING	J38_D1	X	X	D	2011: Asked as part of HSANCT, rather than as a separate question, but question stem the same.
Have any employees had a deduction from their pay in the last 12 months?	TDEDUCT	HSANCT1 TO HSANCT8	HDEDUCT	HDEDUCT	J38_D5	X	X	D	2011: Asked as part of HSANCT, rather than as a separate question, but question stem the same.
Have any employees been suspended in the last 12 months?	TSUSPEND	HSANCT1 TO HSANCT8	HSUSPEND	HSUSPEND	J38_D2, J38_D3, J38_D4	X	X	D	2011: Asked as part of HSANCT, rather than as a separate question, but question stem the same.
How many employees have been sanctioned in last 12 months?	TSANCNUM	X	X	HSUSNUM	J39	X	X	C	1998 and 1990: received a formal written warning, had a deduction from their pay or been suspended in the last 12 months? (where TWARNING=1, TDEDUCT=1 or TSUSPEND=1) 2004: HSUSNUM includes other sanctions so not comparable
Any industrial tribunal cases started against employer in last 12 months?	TCOMPLAI	HCOMPLAI	HCOMPLAI	HCOMPLAI	J40	131D	107B	D	1980: suspiciously high % coding 9. See note 8 on p.175 in WIRS1 sourcebook, which advises reliance only on 'yes' codes. 1984 and 1990 ask whether 'notified' of any official tribunal actions. 1998 asks if any 'complaints' have been made to an Industrial Tribunal 2004 and 2011 asks if an 'application' has been made to an Employment Tribunal
Number of tribunal cases started against employer in last 12 months	TCOMNUM	HCOMNUM	HCOMNUM	HCOMNUM	J41	X	X	C	See notes on TCOMPLAI.
Has establishment been picketed in last 12 months?	TPICKET	X	GPICKET	GPICKET	M6	148A	133A	D	2011: Deleted.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Any formal job evaluation scheme?	TJEVAL	FJOBEBVAL	FJOBEBVAL	X	K5	134A	118A	D	1980 gives no definition and does not specify 'formal' schemes
Number of job evaluation schemes	TNJEVAL	X	FJOBENUM	X	K5	134B	118A 118B	Cat	See comments on TJEVAL 2011: Deleted.
If only/largest job evaluation scheme is points rating scheme? (where TJEVAL=1)	TJEVPOINT	FJOBBCRIT	FJOBBCRIT	X	K8	134D	X	D	1980 data (Q118j) not used as refers to scheme most recently set up 2011: Changes to question stem and bold added to showcard.
% employees resigning/leaving voluntarily	TQUIT	ZRESIGNE ZEMP1AGO	ZRESIGNE ZEMP1AGO	ZRESIGNE ZEMP1AGO	P1 ZEMP1AGO ZALLEMPS	X	X	C	2004 and 1998: based on employees on payroll 12 months ago 1990: all resignations/leavers (apart from dismissals) in last 12 months, expressed as % of average employment in last 12 months 1990, 1998: numerator excludes departures of non-permanent staff Note: watch out for high numbers of missing values and also for extreme values
Whether establishment's main activity is manufacturing (i.e. not extraction or services)	TMANUF	NSICOD03	ASIC2003	ASIC_FIN	A1	1A	1A	D	1980, 1984, 1990: based on SIC80 codes 2210-2247 & 2410-4959. See note for TSIC80B. 1998: SIC92 codes 15000 thru 39999 2004: SIC03 codes 15000 thru 39999 2011: SIC03 major group D.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Forms of industrial action in the past 12 months: Strikes of less than one day Strikes of one day or more Strikes of >=1 day but < 1 week Strikes of one week or more Overtime ban or restriction Work to rule Blacking of work Go-slow Work-in / sit-in Lock-out Other industrial action	TSTRILTD TSTRIGED TSTRIDW TSTRIGEW TOTBAN TWRULE TBLACK TGOSLOW TSITIN TLOCK TOTHIA	GACT1- GACT6	GACTIO01- GACTIO11	GACTIO01- GACTIO04	M4	147A, B	127A 127B 128A 128B	D	TSTRIDW and TSTRIGEW not available in 1980. Separate recording for manual and non-manual workers abandoned in 1998 TOTHIA not to be confused with TOTHACT (any non-strike action). 2011: Reduced list of response options means that it is only possible to derive four measures on a consistent basis (TSTRILTD, TSTRIGED, TOTBAN, TWRULE).
Any union/non-union voice mechanisms?	TVOICE1	Derived from TRECOC, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TANYMEM and TBRIEF						Cat	See notes for TRECOC, TJCCF, TJCCFTU, TANYMEM, TCONSALL and TBRIEF
Any union/non-union voice mechanisms?	TVOICE2	Derived from TRECOC, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TBRIEF, TCIRCLES and TOTHREP2						Cat	See notes for TRECOC, TJCCF, TJCCFTU, TCONSALL, TBRIEF, TCIRCLES and TOTHREP2
Any union/non-union voice mechanisms?	TVOICE2A	Derived from TRECOC, TJCCF, TJCCFTU, TCONSALL, TCONSALL2, TBRIEF and TOTHREP2						Cat	See notes for TRECOC, TJCCF, TJCCFTU, TCONSALL, TBRIEF and TOTHREP2
Any representative/direct voice mechanisms?	TVOICE3	Derived from TRECOC, TJCCF, TCONSALL, TCONSALL2 and TBRIEF						Cat	See notes for TRECOC, TJCCF, TCONSALL and TBRIEF
Any representative/direct voice mechanisms?	TVOICE4	Derived from TRECOC, TJCCF, TCONSALL, TCONSALL2, TBRIEF, TCIRCLES and TOTHREP2						Cat	See notes for TRECOC, TJCCF, TCONSALL, TBRIEF, TCIRCLES and TOTHREP2
Any representative/direct voice mechanisms?	TVOICE4A	Derived from TRECOC, TJCCF, TCONSALL, TCONSALL2, TBRIEF, and TOTHREP2						Cat	As per TVOICE3, plus TOTHREP2
Any voice mechanisms?	TVOICE5	Derived from TVOICE2 and TVOICE4						Cat	See notes for TVOICE2 and TVOICE4
Any voice mechanisms?	TVOICE5A	Derived from TVOICE2A and TVOICE4A						Cat	See notes for TVOICE2A and TVOICE4A
Whether any employees dismissed in last 12 months?	TDISMISS	Derived from TDISNUM						D	See notes for TDISNUM.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Locus of decision making within main pay determination arrangement (12 categories)	TPAYDET2	Derived from TPAYDET						Cat	Categories separated according to values of TCOVPC3
Locus of decision making within main pay determination arrangement (7 categories)	TPAYDET3	Derived from TPAYDET						Cat	Categories <i>not</i> separated according to values of TCOVPC3
Arrangements for dealing with health and safety (summary)	THANDS2	Derived from THANDS						Cat	Codes 4-20 of THANDS grouped together in 'Other'
Identity of LOG	TLOG	ZMGR_TOT - ZROU_TOT	ZPROF_TO T etc	ZPROF_TO T etc	EMSPS: A2B to A2I	X	X	Cat	1991, 1998: Based on SOC(1990) 2004: Based on SOC(2000) 1980, 1984: not derived because BWDS uses a very different occupational classification
Number of employees in LOG	TLOGTOT	ZMGR_TOT - ZROU_TOT	ZPROF_TO T etc	ZPROF_TO T etc	EMSPS: A2B to A2I	X	X	C	See comments on TLOG
Teamworking for LOG (%)	TTEAMS	Not yet derived	CTEAMS CTEAMHO A- CTEAMHO D	CTEAMS CTEAMHO A- CTEAMHO D	X	X	X	Cat	
Training for functional flexibility in LOG (%)	TOTHJOB	Not yet derived	COTHJOB	COTHJOB	X	X	X	Cat	
Training for functional flexibility in LOG (any)	TOTHJOB2	Not yet derived	COTHJOB	COTHJOB	EMSPS: D26+D27	X	X	D	
LOG has variety in job	TVARIETY	CVARIETY	CVARIETY	CVARIETY	X	X	X	Cat	
LOG has discretion in job	TDISCRET	CDISCRET	CDISCRET	CDISCRET	X	X	X	Cat	
LOG has control in job	TCONTROL	CCONTROL	CCONTROL	CCONTROL	X	X	X	Cat	
Internal recruitment	TINTPREF	Not yet derived	CFILLVAC	CFILLVAC	X	X	X	D	EMSPS: C7 identifies a preference for internal, but across each of 9 occ groups, so not used.
Motivation as selection criterion	TMOTIV	Not yet derived	CFACTOR	CFACTOR	X	X	X	D	
Induction for LOG	TINDUCT	CINDUCT	CINDUCT	CINDUCT	X	X	X	D	EMSPS: D2-D5 cover induction, but focus explicitly on 'instruction for the job' so not used

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Appraisal (% non-managerials)	TAPPRAIS	Not yet derived	FSOCIN	FSOCIN	EMSPS: D32-D34	X	X	Cat	1998, 2004: 'formal appraisal' EMSPS: any assessment of performance; if an occ group is cited, we assume all in that group are appraised 1990: N7 asks about appraisal but only covers manuals / clericals (whichever greater) so not used
Appraisal for LOG	TAPPLOG	Not yet derived	FSOCIN, TLOG	FSOCIN, TLOG	EMSPS: D32-D34, TLOG	X	X	D	See notes on TAPPRAIS
Appraisal includes analysis of training needs (where TAPPRAIS<7)	TAPPTRN	Not yet derived	FAPPTRN	FTYPEAP	EMSPS: D35	X	X	D	EMSPS: Only asked if provide some training, but this is almost everyone so considered useable 1998, 2004: identified if this is one of the main purposes of the appraisal
Appraisal for LOG includes analysis of training needs (where TAPPLOG<7)	TAPPTRNL	Not yet derived	FAPPTRN, TLOG	FTYPEAP, TLOG	EMSPS: D35, TLOG	X	X	D	See notes on TAPPTRN.
Off-the-job training for LOG	TOFFJOB	Not yet derived	COFFJOB	COFFJOB	X	X	X	Cat	EMSPS: D18 identifies only whether off-job is main method (not whether any off-job training), so not used.
Training for LOG in communication skills	TTRNCOM	Not yet derived	CHOW	CHOW	X	X	X	D	
Training for LOG in teamworking	TTRNTEAM	Not yet derived	CHOW	CHOW	X	X	X	D	
Training for LOG in human relations (teamworking or communication)	TTRNHREL	See TTRNCOM and TTRNTEAM						D	
Extra-statutory sick pay for LOG / managers	TSICKLOG / TSICKMGR	Not yet derived	FENTITL, FOTHITL	FENTITL, FOTHITL	X	X	X	D	1990: N3 and N4 cover this issue but question only asked if 5+ manuals and 5+ non-manuals, so not used
Employer pension scheme for LOG / managers	TPENLOG / TPENMGR	Not yet derived	FENTITL, FOTHITL	FENTITL, FOTHITL	X	X	X	D	1990: N3 and N4 cover this issue but question only asked if 5+ manuals and 5+ non-manuals, so not used
Harmonised fringe benefits between LOG and managers	THARMON	See TSICKLOG, TSICKMGR, TPENLOG, TPENMGR						D	
Job security guarantees for any non-managerials	TJOBSEC	Not yet derived	JOBSEC	JOBSEC	X	X	X	D	

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Job security guarantees for LOG	TJOBSECL	Not yet derived	JOBSEC, TLOG	JOBSEC, TLOG	X	X	X	D	
Self-inspection	TEMPMON	Not yet derived	KHOWMON	KHOWMON	X	X	X	D	
Records on faults and complaints	TRECMON	Not yet derived	KHOWMON	KHOWMON	X	X	X	D	
Customer surveys	TCUSTMON	Not yet derived	KHOWMON	KHOWMON	X	X	X	D	
Training in quality	TTRNQUAL	Not yet derived	CHOW	CHOW	X	X	X	D	
Training in problem-solving	TTRNPROB	Not yet derived	CHOW	CHOW	X	X	X	D	
Quality targets	TQUALTAR	Not yet derived	KTARGET	KTARGET	X	X	X	D	
Just-in-time procedures	TJIT	KJIT	KJIT	KJIT	X	X	X	D	
Equal opportunities policy	TEOPOL	IPOLICY	IPOLICY	IPOLICY	X	X	X	D	
Equal opportunities policy specifically citing: Gender Ethnicity Religion Marital status Disability Age Sexual orientation Union membership	TEOPOL1 TEOPOL2 TEOPOL3 TEOPOL4 TEOPOL5 TEOPOL6 TEOPOL7 TEOPOL8	Not yet derived	IGROUNDS	IGROUNDS	X	X	X	D	
Investors In People status	TIIP	BAWARD	BAWARD	BAWARD	X	X	X	D	
EUKLEMS industry classification	TEUKLEMS	X	ASIC92	ASIC_FIN	A1	Q1a	Q1a	C	A string variable. Permits the WERS time-series data to be linked to the EUKLEMS industry-level database, which provides measures of economic growth, productivity, employment creation, capital formation and technological change at the industry level for the UK from 1970 onwards. See http://www.euklems.net 2011: Not available on Data Archive version of MQ.

VARIABLE DESCRIPTION	VARIABLE NAME	YEARS FOR WHICH COMPARABLE DATA EXISTS						TYPE OF VARIABLE	FURTHER INFORMATION
		2011	2004	1998	1990	1984	1980		
Establishment weight	WEIGHT	ESTWTNRC _APR13	ESTWTNR	ESTWTNR	WEIGHT	CARD 21, COLS 73-80	CARD 40, COLS 61-65 Plus ADJUST- MENT FACTOR	C	1980: Employ the adjustment factor used in 1984 sourcebook to boost lower end of distribution (compensating for age of frame). See pages 7 and 329-332 of 1984 sourcebook. 1998: Use revised weight compiled during 2004 analysis (original 1998 weight not truly consistent over time)
Employee weight (WEIGHT * TALLEMPS)	EEWEIGHT		Derived from WEIGHT and TALLEMPS					C	