

Trade union membership 1999-2000: an analysis of data from the Certification Officer and the Labour Force Survey

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Key points

According to the Certification Officer:

- 237 trade unions submitted returns to the Certification Officer during the period 1 April 2000 to 31 March 2001.
- There were 7.9 million trade union members, an increase of 46,000 on the previous year. This was the second successive year in which membership has increased.

According to the Labour Force Survey (LFS):

- At autumn 2000, 7.3 million of those in employment were trade union members, an increase of 63,000 on 1999 and an increase of 169,000 since 1998.
- On the other hand, there has been a decrease in membership since 1990 of 1.5 million, a fall over the ten-year period of 17.1 per cent.
- The proportion of employees who were union members (union density) decreased very little from 29.5 per cent in 1999 to 29.4 per cent in 2000.
- The fall in union membership has been steeper for males than for females. Male union density was 43.0 per cent in 1990 and 29.9 per cent in 2000, whereas female density was 32.0 per cent in 1990 and 28.9 per cent in 2000.
- Trade union membership is more prevalent among older employees, those with long service and those in the public sector.
- Professionals were most likely to be trade union members, as were full-time employees, foremen and supervisors, and those working in large workplaces.
- The number of employees in workplaces where trade union members are present increased by 250,000 from 11.4 million in 1999, to 11.6 million in 2000.

Introduction

THIS ARTICLE contains information on the number of trade unions and union members in Great Britain. There are two sources of data used to measure trade union membership. The first of these is the summary within the *Annual Report of the Certification Officer (CO)* for Trade Unions and Employers' Associations, collated using administrative records. The Trade Union and Labour Relations Act 1992 requires that every trade union in existence for 12 months or longer must submit an annual return to the CO. These returns provide details of the number of members within each trade union.

The second source is the Labour Force Survey (LFS) which provides more detailed information on the characteristics of trade union members. The survey includes questions on union membership status, whether a trade union is present at the workplace, and whether pay and conditions are affected by a collective agreement.

Information provided in the CO's *Annual Report* is based on annual returns submitted by trade unions in respect of the calendar year, although some cover a different accounting period. Approximately 88 per cent of trade unions had a reporting year that ended on 31 December 1999. The

remainder had accounting periods ended sometime between October 1999 and September 2000. The LFS currently collects data on trade unions in the autumn quarter. LFS data analysed in this article are from autumn 2000. For further discussion of the differences between the two sources of union information, see the *technical note* at the end of this article.

Trade union membership data compiled by the Certification Officer

Following the proposals made last year concerning the consistency of the data used in this article, this is the first year that the statistics have been presented using the same basis as the CO's *Annual Report*. See *technical note* for a discussion of how the series used to differ and the availability of a back series for the compatible data.

Figure 1 uses data for all 'listed' and 'unlisted' trade unions that submitted annual returns to the CO. Listing is voluntary and any organisation of workers may apply to the CO to be listed as long as the organisation falls within the

definition of a trade union stated in the 1992 Act. There are organisations that fall within this statutory definition that have not applied to be listed. Any of these known by the CO are entered in a second list of 'unlisted' unions. 'Unlisted' unions have the same statutory responsibilities as listed unions; thus, the annual return forms are sent to organisations on both lists.

Figure 1 illustrates the decline in trade unions and trade union members since 1975. Mergers have caused much of the decline in the number of trade unions. There are two types of merger: transfers of engagement and amalgamations. Under a transfer of engagement, the transferring organisation loses its legal status while the organisation to which it transfers remains unchanged. An amalgamation produces a new organisation replacing each of the amalgamating bodies, which cease to exist. The data show that the period of large-scale decline has ended and that membership has begun to stabilise over the past five years.

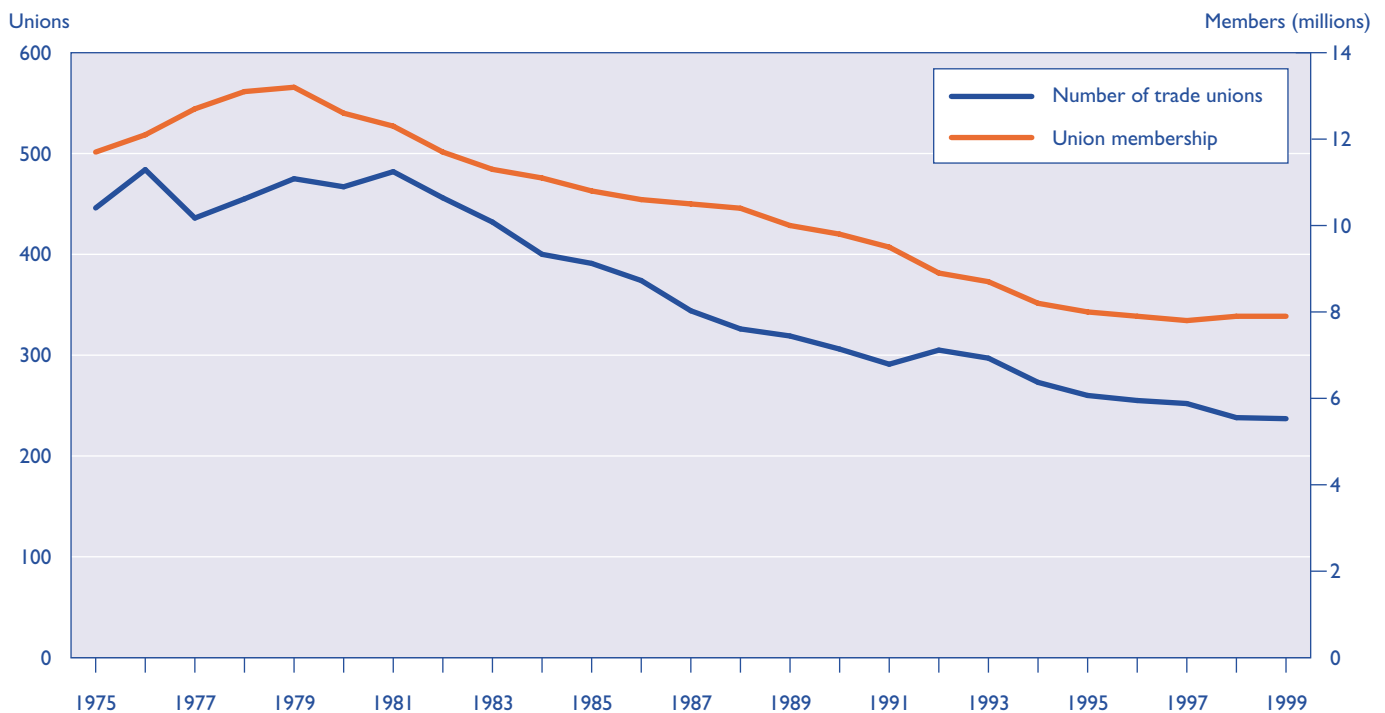
On 31 March 2001 there were 206 'listed' unions and 22 'unlisted' unions compared with 221 'listed' unions and 22 'unlisted' unions on 31 March 2000.

The number of unions that submitted annual returns to the CO during the period 1 April 2000 to 31 March 2001 remained similar to the previous year's returns, having decreased by one union to 237. The following analysis is based solely on information from these trade unions. The number of union members increased for the second year in succession, having risen by 46,000 (0.6 per cent) to 7.9 million members.

Table 1 shows the distribution of members and unions by the size of union. While 72.6 per cent of unions have less than 5,000 members, 72.1 per cent of members belong to the ten largest unions with 250,000 or more members and form only 4.5 per cent of all unions. UNISON was the largest trade union with some 1.3 million members, followed by the Transport and General Workers Union (0.9 million members), the Amalgamated Engineering and Electrical Union (0.7 million members) and the GMB (0.7 million members).

During the period 1 January 1999 to 31 March 2000 there were nine transfers of engagement and one amalgamation. The ten mergers involved a total of 508,370 members. The largest merg-

Figure 1 Number of trade unions and union members; Great Britain; 1975 to 1999



Source: Certification Officer/DTI

Table 1 Distribution and membership of trade unions by size of union; Great Britain; 1999-2000

	Number of unions	Membership (thousands)	Number of unions		Membership of unions	
			Per cent	Cumulative per cent	Per cent	Cumulative per cent
Number of members						
Under 100	44	1	18.6	18.6	0.0	0.0
100 - 499	49	12	20.7	39.2	0.2	0.2
500 - 999	22	14	9.3	48.5	0.2	0.4
1,000 - 2,499	34	58	14.3	62.9	0.7	1.1
2,500 - 4,999	23	83	9.7	72.6	1.1	2.1
5,000 - 9,999	12	92	5.1	77.6	1.2	3.3
10,000 - 14,999	4	53	1.7	79.3	0.7	4.0
15,000 - 24,999	10	181	4.2	83.5	2.3	6.3
25,000 - 49,999	18	618	7.6	91.1	7.8	14.1
50,000 - 99,999	5	304	2.1	93.2	3.8	17.9
100,000 - 249,999	5	788	2.1	95.4	10.0	27.9
250,000 and over	11	5,693	4.6	100.0	72.1	100.0
Total	237	7,898	100.0		100.0	

Source: Certification Officer

er, which involved 486,829 members, was the amalgamation of the Banking Insurance and Finance Union, UniFI and the NatWest Association (now known as UNIFI).

Trade union membership and density based on LFS data

Trade union membership questions were first added to the LFS questionnaire in 1989. Analysis of those in employment includes the self-

employed, but excludes members of the armed forces, who are prohibited from becoming union members, those on college-based government-supported training and employment and unpaid family workers.

Table 2 shows how in autumn 2000 union membership among those in employment was 7.3 million, a small increase of around 63,000 members (0.9 per cent) from 1999. This is not a statistically significant change in membership compared with 1999. Union decline is a net effect: while some members are leaving trade unions,

there are actually many thousands of new members recruited each year.

The proportion of all persons in employment who are union members (generally known as union density) remained unchanged at 27.0 per cent. The proportion of employees who are trade union members decreased marginally from 29.5 per cent in 1999 to 29.4 per cent in 2000 and does not constitute a significant change. This is because the number of employees grew at a faster rate than union membership, rising from 24.1 million in 1999 to 24.5 million in 2000.¹

Table 2 Trade union membership;^a Great Britain; 1990 to 2000

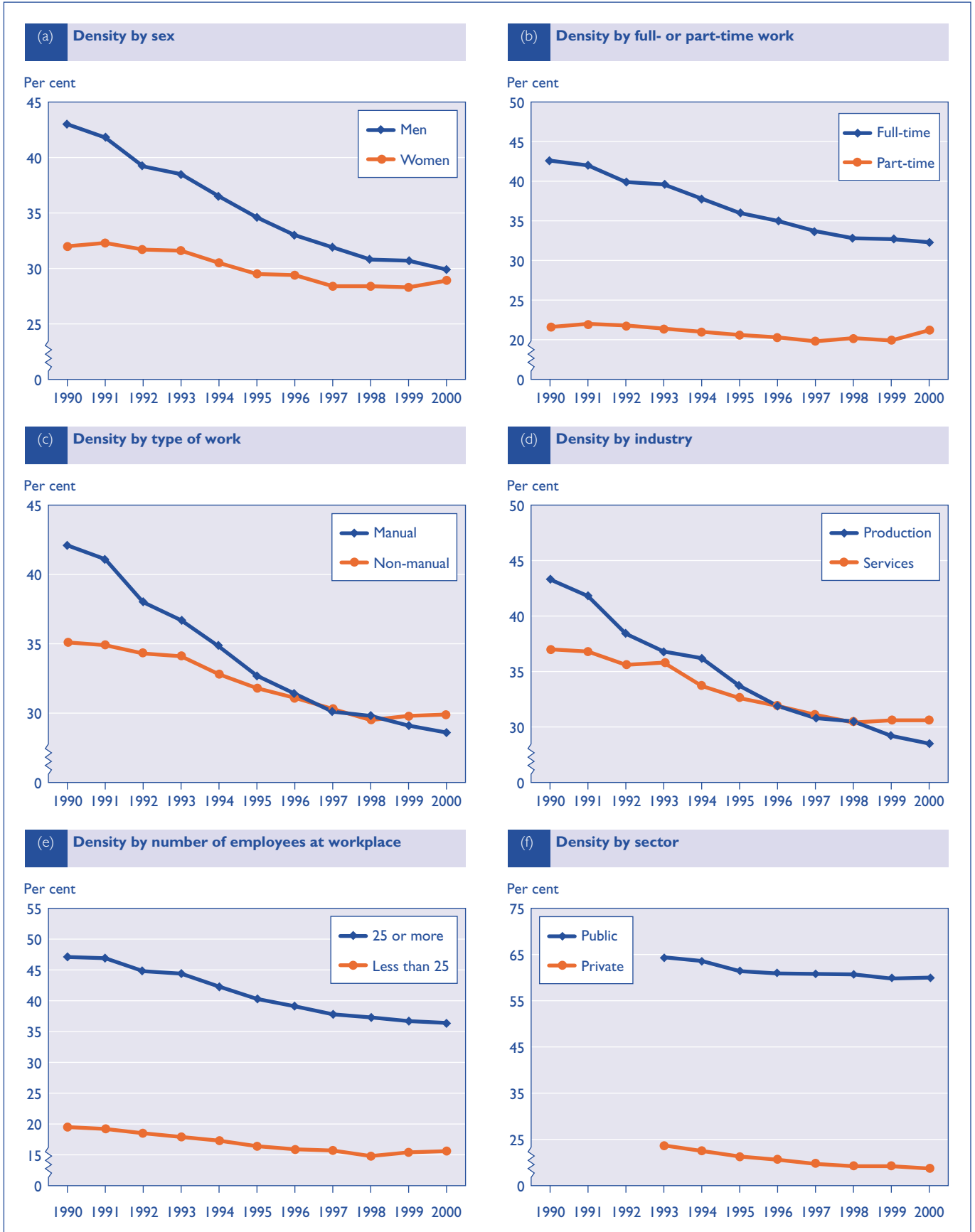
	Number of members (thousands)	Percentage change in membership since previous year	Union density for all in employment (per cent)	Union density for employees ^b (per cent)
1990	8,835		33.9	38.1
1991	8,602	-2.6	33.6	37.5
1992	7,956	-7.5	32.2	35.8
1993	7,767	-2.4	31.5	35.1
1994	7,530	-3.0	30.1	33.6
1995	7,309	-2.9	28.8	32.1
1996	7,244	-0.9	28.2	31.2
1997	7,154	-1.2	27.3	30.2
1998	7,152	0.0	26.9	29.6
1999	7,257	1.5	27.0	29.5
2000	7,321	0.9	27.0	29.4
Change since 1990	-1,514		-6.9	-8.7

Source: Labour Force Survey

a Excludes members of the armed forces, unpaid family workers, and those on college-based schemes. From 1989-91 union membership questions were asked in the spring. Since 1992 they have been asked in the autumn quarter. Those who did not report their union status or were not contactable in the autumn quarter have been allocated on a pro-rata basis.

b Employees only.

Figure 2 Union density; Great Britain; 1990-2000



Source: Labour Force Survey

Table 3 Union density by individual characteristics:^a Great Britain; autumn 2000

	All	Men	Per cent
			Women
Age group			
Under 20 years	6	7	4
20 to 29 years	19	19	20
30 to 39 years	31	31	31
40 to 49 years	38	39	37
50 years and over	35	36	33
Ethnic origin			
White	30	30	29
Non-White	25	23	27
of which			
Black	29	25	33
Indian	25	26	25
Pakistani/Bangladeshi	16	16	*
Other	23	21	25
Highest qualification			
Degree or equivalent	37	30	46
Other higher education	43	32	52
A-level or equivalent	28	32	21
GCSE or equivalent	24	37	22
Other	26	30	22
No qualifications	24	28	21
All employees	29	30	29

Source: Labour Force Survey

^a Includes all employees except for members of the armed forces.

* Sample size too small for reliable estimate.

The remainder of this article excludes the self-employed and covers employees only. The self-employed have traditionally had low union membership – less than 10.0 per cent of the self-employed were union members in 2000.

Figure 2 shows union density among various groups over time. Trade union density has always been higher for men than for women. However, the proportion of male employees with union membership dropped by 13 percentage points between 1990 and 2000. During the same period, female density decreased by only 3 percentage points, leaving density for both at around 30 per cent.

Union density among full-time workers fell by 11 percentage points, from 43 to 32 per cent since 1990, though the rate appears to be stabilising. The rate for part-time employees remains fairly constant over time and was 21 per cent in 2000. The large gap

between union density of full-time and part-time employees may reflect the difficulties that unions encounter in recruiting and organising part-time employees.

Manual worker union density fell from 42 per cent to 29 per cent between 1990 and 2000, while non-manual density decreased by only 5 percentage points. Since 1996, non-manual density has been equal to, or greater than, that for manual employees. Similarly, production density fell by 14 percentage points, from 43 to 29 per cent since 1990. Density in the service sector remained greater than for production and appeared to be stabilising at around 30 per cent. This illustrates the extent of the decline of unionisation in occupations and industries that traditionally were heavily unionised.

Union density was 36 per cent for workplaces with more than 25 employ-

ees and 16 per cent for those with less than 25 employees. The proportion of union members in the public sector was much greater than in the private sector, though both dropped at a similar rate of 4 to 5 percentage points between 1993 and 2000.

Individual characteristics

Table 3 reveals that employees aged 40 to 49 had the highest union density of 38 per cent. Less than one fifth of 20 to 29-year-old employees were union members, while those under 20 had the lowest density of all the age groups at 6 per cent. There is evidence from panel data that successive age cohorts had a declining probability of joining trade unions.² Thus, the appearance of higher density in the relationship between age and union participation is mainly due to the changing labour market experiences of cohorts born in later periods.

Density was 30 per cent for White employees and 29 per cent for Black employees. Employees who belonged to Pakistani and Bangladeshi ethnic groups were least likely to be union members with a density of 16 per cent.

Union membership was most prevalent among those with higher education qualifications below degree level, at 43 per cent. For those with qualifications below this level, the proportion of union members was between 24 and 28 per cent.

Although men and women were equally likely to be trade union members, there are large differences for individual characteristics such as ethnic origin and education. Women from minority ethnic groups, most notably Black women, had a higher membership rate than their male counterparts. Women with their highest educational achievement below the standard of higher education had lower union density than men; in the case of those with at most GCSE or equivalent qualifications union density was nearly 15 percentage points less than for male counterparts. Women with higher education qualifications were far more likely than men to be union members: those with 'other' higher educational qualifications than degrees or degree equivalents had a density of 52 per cent. This

was 20 percentage points greater than the rate for men with the same academic achievements.

Job-related characteristics

Table 4 shows that union density is related to length of service. The prevalence of union membership is greatest among those who were in their current employment 20 years ago when trade union membership was at its peak, and demonstrates a similar pattern to the distribution by age in Table 3.

Examination of the density data by occupation shows that union membership was most prevalent among professionals, half of whom were trade union members. This may have been strongly influenced by the high proportion of public sector workers such as teachers and doctors in the group: 23 per cent of all public sector employees were professionals; of these 74 per cent were trade union members. In the public sector, professionals were still most likely to be union members. However, in the private sector, plant and machine operatives had the highest density, at 36 per cent, and only 20 per cent of professionals were union members. Union density varied widely over the major occupational groups, the lowest being 11 per cent for those working in sales.

Density for full-time plant and machine operatives, personal and protective occupation group employees, and those in 'other' occupations was around twice that for part-time employees. The only group where part-time employees had higher union density than full-time employees was associate professional and technical employees.

Foremen and supervisors were more likely than managers or those with no managerial responsibility to have been union members.

The last section of Table 4 covers 'non-standard' working arrangements such as job sharing and homeworking. Full-time employees with term-time working arrangements had a higher union density than all other groups identified here. Only 7 per cent of employees who work in their own home were union members. Union density among job sharers made a small increase from 33 per cent in 1999 to 37 per cent in autumn 2000.

Table 4 Union density by job-related characteristics;^a Great Britain; autumn 2000

	All	Full-time	Per cent Part-time
Length of service			
Less than one year	12	13	8
One to two years	18	20	13
Two to five years	22	23	17
Five to ten years	33	34	28
Ten to 20 years	45	47	41
20 years or more	60	62	49
Occupational group (SOC90)			
Managers and administrators	19	20	16
Professional	50	51	48
Associate professional/technical	43	40	54
Clerical and secretarial	24	27	20
Craft and related	31	32	*
Personal and protective	28	37	17
Sales	11	11	11
Plant and machine operatives	37	39	18
Other occupations	26	36	17
Managerial status			
Manager	25	26	23
Foreman or supervisor	38	38	36
No managerial duties	29	34	20
Permanent/temporary status			
Permanent	30	33	22
Temporary	19	20	18
Special working arrangements			
Flexitime	40	44	25
Job sharing	37	*	37
Term-time working	47	74	27
Annualised hours contract	46	49	36
4.5 day week / 9 day fortnight	44	45	*
Zero hours contract	16	20	*
Work mainly in own home	7	*	*
All employees	29	32	21

Source: Labour Force Survey

a Includes all employees except for members of the armed forces. See technical note for details on classifications.

* Sample size too small for reliable estimate.

Workplace characteristics

Table 5 shows that industries that were, or are, traditionally part of the public sector i.e., public administration, education, electricity, gas and water supply, had the highest union density. Overall, union density in the public sector was around three times that for the private sector.

Density in large public sector workplaces was only 11 per cent higher than for small public sector workplaces. In the private sector this difference is far more pronounced, with large work-

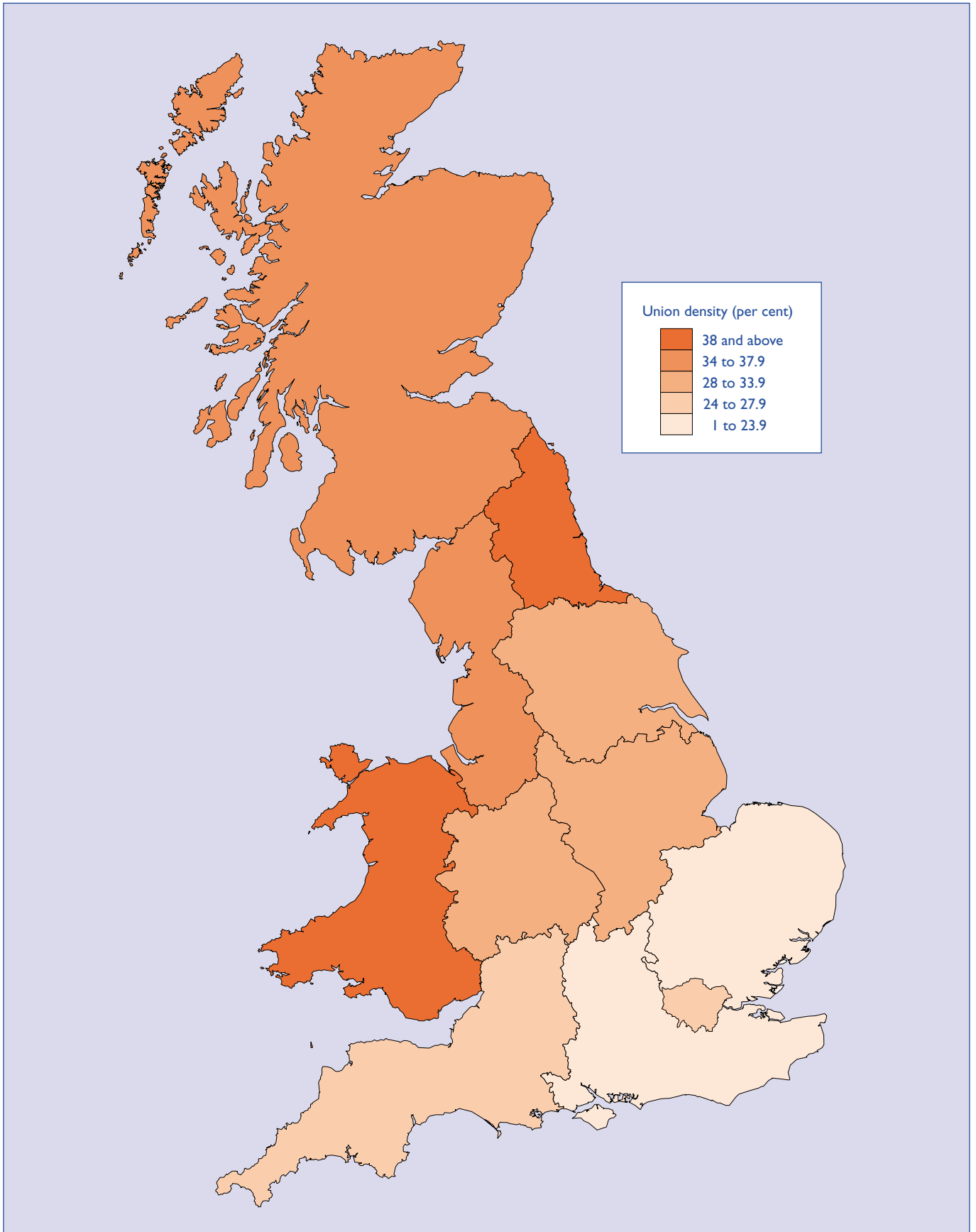
places having union density of over twice that of workplaces with less than 25 employees.

Figure 3 illustrates how trade union membership varies across Britain. Union density was highest in Wales and the North East (40 per cent) and lowest in the East of England (22 per cent).

Trade union presence and collective agreements

Table 6 indicates no significant increase in the number of employees

Figure 3 Union density by government office region and country, Great Britain; autumn 2000



Source: Labour Force Survey

who were affected by collective agreements. There was, however, a significant increase of 250,000 in the number of employees who said there were trade union members present at the workplace. Just over a third of employees' pay was affected by collective agreements, while nearly half of all employees had trade union members present at their workplace.

Comparisons cannot be made with data prior to 1999 as considerable changes were made to these LFS questions and their routing in 1999. Further details can be found in the *technical note*.

Table 7 illustrates that employees situated in workplaces where there were 25 employees or more were more likely to have their pay affected by collective agreements than those in smaller workplaces. The proportion of employees affected by collective agreements broadly reflects the pattern of union density shown in Table 5 with rates for the public sector being far higher than for the private sector.

Not all members of trade unions were affected by collective agreements, yet 17 per cent of those who were not members were covered by collective agreements. Only 5 per cent of employees in small private companies who were not members were affected by collective agreements, whereas in the public sector nearly half of all employees in this subset were.

Conclusion

Union density has continued to remain at just under a third of all

Table 5 Union density by workplace characteristics;^a Great Britain; autumn 2000

	All	Private	Per cent
			Public
Industry			
Agriculture, forestry and fishing	11	9	*
Mining and quarrying	33	32	*
Manufacturing	27	27	58
Electricity, gas and water supply	53	52	*
Construction	20	14	71
Wholesale and retail trade	11	11	*
Hotels and restaurants	5	4	40
Transport and communication	42	36	75
Financial intermediation	30	30	*
Real estate and business services	10	8	51
Public administration	59	24	61
Education	54	26	58
Health	46	17	64
Other activities	23	11	48
Government office region, or country			
England	28	18	59
North East	40	27	70
North West	36	24	65
Yorkshire and the Humber	32	20	64
East Midlands	30	20	65
West Midlands	30	21	62
East	22	14	51
London	25	15	56
South East	23	14	50
South West	26	17	54
Wales	40	25	69
Scotland	35	22	65
Workplace size			
Less than 25 employees	16	9	51
25 employees or more	36	25	62
All employees	29	19	60

Source: Labour Force Survey

a Includes all employees except for members of the armed forces. See *technical note* for details on classifications.

* Sample size too small for reliable estimate.

Table 6 Union presence and coverage of collective agreements;^a Great Britain; 1996 to 2000

	Number of employees where there are trade union members at the work place (thousands)	Percentage of employees working where trade union members are present	Number of employees whose pay is affected by collective agreements (thousands)	Thousands and per cent
				Percentage of employees whose pay is affected by collective agreements
1996	11,009	49.5	8,096	36.4
1997	10,970	48.1	8,053	35.3
1998	11,009	47.2	8,031	34.5
1999 ^b	11,384	48.2	8,453	35.8
2000	11,638	48.7	8,582	35.9

Source: Labour Force Survey

a Includes all employees except for members of the armed forces. Those who did not report union recognition status for their workplace, or were not contactable in the autumn quarter, have been allocated on a pro-rata basis.

b Data for 1999 onwards are not directly comparable to earlier years due to changes in the trade union questions in the Labour Force Survey (see *technical note* for details).

Table 7 Percentage of employees covered by collective agreements, by workplace characteristics and union membership;^a Great Britain; autumn 2000

	All	Per cent			
		Private sector		Public sector	
		Less than 25 employees	25 or more employees	Less than 25 employees	25 or more employees
Industry					
Agriculture, forestry and fishing	15	12	*	*	*
Mining and quarrying	34	*	35	*	*
Manufacturing	31	8	36	*	83
Electricity, gas and water supply	64	*	64	*	*
Construction	24	11	24	*	83
Wholesale and retail trade	18	8	27	*	*
Hotels and restaurants	9	4	9	*	58
Transport and communication	48	19	47	73	88
Financial intermediation	41	44	39	*	*
Real estate and business services	13	5	11	64	74
Public administration	78	*	36	71	81
Education	64	*	32	66	71
Health	51	12	19	63	74
Other activities	30	8	21	55	71
Union membership					
Member	77	57	74	80	84
Not a member	17	5	15	44	61
All employees	36	10	31	64	76

Source: Labour Force Survey

^a Includes all employees except for members of the armed forces. See *technical note* for details on classifications.

* Sample size too small for reliable estimate.

employees. Both of the measures used in this article indicate that membership has ceased to decline since 1998. Data from the two sources relate to different time periods, which makes it difficult to draw firm conclusions about recent trends. Between autumn 1997 and 1998 the LFS estimate decreased by only 2,000 members and has since risen in 1999 and 2000 with increases of 105,000

and 63,000 respectively. Similarly, the CO member count has increased in 1998 and 1999, by 51,000 and 46,000 respectively.

Density is still declining in some groups of interest such as the production industry and manual employees, though, on the whole, rates continue to vary depending upon employee and work characteristics and have remained fairly constant in recent years.

Notes

- 1 Table B.1, 'Labour Market Data' section in *Labour Market Trends*, March 2001.
- 2 Disney, R., Gosling, A., Machin, S. and McCrae, J., *The Dynamics of Union Membership in Britain*, Employment relations Research Series 3, DTI, August 1998.

Further information

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Technical note

The Annual Report of the Certification Officer 2000-2001

The *Annual Report of the Certification Officer* is not within the scope of National Statistics.

The current lists of trade unions are available for inspection, free of charge, at the Certification Office, Brandon House, 180 Borough High Street, London, SE1 1LW. Requests for further information on any aspect of the Certification Officer's duties should be made to this address or telephone 020 7210 3734. Lists for organisations having their head office in Scotland are also available for inspection at the Office of the Assistant Certification Officer for Scotland, 58 Frederick Street, Edinburgh EH2 1LN.

National Statistics presentation of trade union membership statistics from the Certification Officer

In previous trade union membership articles in *Labour Market Trends*, there have been small differences in the presentation of Certification Officer (CO) data from that shown in the CO's *Annual Report*:

- the *Annual Report* included returns for 'unlisted' unions, whereas *Labour Market Trends* articles did not;
- over time, CO treatment of regional branches has varied (branch members may be summed to one 'main' union), whereas *Labour Market Trends* articles have continued to sum regional branches until this year; and
- before 1996, *Labour Market Trends* (and, formerly, *Employment Gazette*) articles produced CO data analysis on a United Kingdom basis, while the *Annual Report's* coverage has always been for Great Britain.

There have also been differences in the presentation of CO data between the *Annual Report*, *Labour Market Trends* articles, and Table 7.26 published in the National Statistics publication *Annual Abstract of Statistics*. Table 7.26 has UK coverage, excludes unlisted unions and has never summed regional branches together. The differences between the various presentations of the CO data in the above publications are summarised in the table below.

To make these three products compatible, *Labour Market Trends* articles and Table 7.26 in *Annual Abstract of Statistics* will be presenting CO data on the same basis as the CO's *Annual*

Report from now on, although the *Annual Abstract* table will continue to have UK, rather than Great Britain, coverage. Thus, *Table 1* is now identical to that contained within this year's *Annual Report* and the data behind *Figure 1* are the same as that published in previous year's *Annual Reports*.

The back series for *Figure 1* (1975-99) taken from previous years' *Annual Report* is available on request or can be downloaded at http://www2.dti.gov.uk/er/emar/trade_tables.htm. A back series for *Table 1* (1989-99) of this article is also available. The latter has been estimated by the Department of Trade and Industry for the years 1989-95, using existing files and archives of annual returns available for view at the Certification Office. The total of this table for these years varies slightly from the series behind *Figure 1*. Most of these differences are small, however, and below 5 per cent of the original CO figure. Data for the years 1996-98 are as for the table in the *Annual Report*.

Table 7.26 in *Annual Abstract of Statistics* will be revised in the next publication due in 2002.

The Labour Force Survey (LFS)

The LFS is a survey of around 60,000 private households throughout Great Britain. The survey was conducted once every two years between 1973 and 1983 and once every year from 1983 until 1991, always in the spring. From 1992 onwards, the survey has been conducted on a quarterly basis in Great Britain, and since 1995 for the United Kingdom as a whole.

Further differences between CO and LFS data

The CO data provide a long and consistent back series of the number of trade unions and the number of union members, from 1975 onwards. The LFS has a shorter back series, from 1989 onwards, but can provide extensive information on the respondents' individual and workplace characteristics, allowing more detailed analysis.

There are differences in how the two sources report membership. For example, the CO membership count includes all members of unions having their head office in Great Britain, including those members in Northern Ireland, the Irish Republic and 'elsewhere abroad'. These figures may also

Past presentation of CO data in National Statistics publications

	GB	UK	Listed	Unlisted	Some branches treated separately	Branches summed 'parent'
CO Annual Report	Y	N	Y	Y	Y	Y
<i>Labour Market Trends</i> Article	Y: 1996-98	Y: 1975-95	Y: 1976+	Y: 1975 only	Y: 1996-98	N: up to 1995
<i>Annual Abstract of Statistics</i>	N	Y	Y	N	N	Y

Technical note

include union members who are unemployed or retired. The LFS asks questions on the union status of all those in employment that are not on college-based government-supported training and employment programmes or unpaid family workers, thus excluding the unemployed and the retired.

The LFS union questions have UK coverage from 1995 onwards, although data in this article are for Great Britain to enable comparisons across a ten-year period. The LFS estimates the number of individuals who are union members, rather than the individual memberships – for example, those belonging to two unions would appear twice in the CO data, but only once in the LFS data. Also, due to the specific wording of the union question, the LFS, unlike the CO data, could count members of a staff association that was not a trade union.

Trade union questions

In the 1999 questionnaire the union questions were altered substantially from those of previous years. The exact wording and sequence of the questions as they are now and as they were previously are as shown in the table below.

- The wording of the question that asks respondents whether they are a member of a trade union remains the same, only its place in the sequence has changed.
- The question that asks whether any of the people at the respondent's place of work are members of a trade union or staff association is designed to measure trade union presence. The wording, routing and sequence of this question has changed. Previously, it was asked of all in employment; now it is only asked to those who say that they are not union members.
- Before 1999, the question on whether the respondent's pay and conditions were directly affected by collective agree-

ments (TUCOV) was only asked where the respondent first identified unions as being present at the workplace (TUPRES), and then whether or not it was recognised (TUREC). This meant that the number of people whose pay and conditions were affected by collective agreement was an underestimate. For this reason the routing of the question was changed in the 1999 LFS and is now asked of all in employment. Users must therefore be aware that data derived from the TUCOV variable in the 1999 and 2000 datasets are not directly comparable with those of previous years due to the change in the question's coverage.

In 1992 the trade union membership question was moved from the spring to the autumn quarter. Consequently, estimates since 1992 are not directly comparable with those for earlier years, because estimates before and after this change may reflect seasonal factors as well as longer-term trends. It is not possible to seasonally adjust the data. However, it is known that, at the aggregate level, seasonal variations in the number of people in employment – the group that is asked the membership questions – tend to be relatively modest (see *Employment Gazette*, April and May 1993 for a fuller discussion). There is also a minor discontinuity between 1992 and 1993 due to the inclusion in 1993 of the additional questions on trade unions that preceded the membership question.

Non-response

Each household in the LFS is in the sample for five consecutive quarters. For the small number of households that were not contactable in the quarter (other than the first), their responses from the previous quarter are brought forward. For questions that do not appear every quarter, such as the trade union membership question, there is no previous response to

Current union questions

All in employment:

UNION

Are you a member of a trade union or staff association?

If no:

TUPRES

Are any of the people at your place of work members of a trade union or staff association?

All in employment:

TUCOV

Are **your** pay and conditions of employment directly affected by agreements between your employer and any trade union(s) or staff association?

Previous union questions

All in employment:

TUPRES

At your place of work, are there any unions, staff associations or groups of unions?

If yes:

TUREC

Is it/are any of them recognised by management for negotiating pay and conditions of employment?

If yes:

TUCOV

Are **your** pay and conditions of employment directly affected by agreements between your employer and any trade union(s) or staff associations?

All in employment:

UNION

Are you a member of a trade union or staff association?

Technical note

carry forward, and a 'does not apply' response is therefore recorded. There are also cases where the respondent was interviewed in the quarter, but gave no answer (either because they did not know, or refused to answer the question). Both cases have been treated in the same way and allocated pro-rata according to those who did answer the question.

Classificatory variables

Most of the classifications used to place respondents in different categories are based on a direct question relying on the person's self-assessment of their circumstances. Some are based on a combination of more than one question, and others are coded by ONS based on standard conventions. Details are provided below.

Sex, age and ethnic group are self-defined. Highest qualification is principally based on a question asking individuals to nominate what qualifications they have from a list of 40 categories. These have then been aggregated for the purposes of analysis.

With the exception of occupation, all classifications used in this section are self-defined. In particular, it should be noted that the two aspects of employment status – full-time or part-time, and permanent or temporary – are based on direct questions and do not rely on any set criteria (e.g. number of hours worked). Whether an individual is an employee or self-employed is also self-defined. The classification for special working arrangements only includes those who work under such arrangements, and the final category of 'work mainly in own home' is taken from a separate question on homeworking.

The occupational classifications are from the 1991 Standard Occupational Classification (SOC91), and are assigned by ONS staff based on an open-ended question asking people what their job was, and what they mainly did in their job.

Defining the sector in which people work is based on two questions, first introduced in 1993. These ask, first, if they worked in a private firm or business, a limited company, or some other kind of organisation; and second, if other, what kind of non-private organisation.

Industry is based on respondents' answers to a question about what the firm or organisation for which they worked mainly made or did, and coded using the Standard Industrial Classification of economic activities 1992 (SIC92).

Region of place of work is a self-defined variable. In earlier articles trade union density was presented by standard statistical region (SSR); since 2000 it has been by government office region (GOR). The boundaries for some of the GORs are different to the previous SSRs. The GORs North West, North

East, East of England, London and the South East are not comparable to the SSR equivalents. Users should not directly compare these regions with figures published in previous articles.

Sampling and non-sampling error

The LFS is a sample survey and, in common with all other sample surveys, estimates are subject to sampling error and non-sampling error.

Sampling errors relate to the fact that the sample chosen is only one of a very large number of samples which might have been chosen. It follows from this that one quarter's estimate of, say, trade union membership, is only one of a large number of such estimates that might have been made. It is possible to calculate standard errors and assign confidence intervals to estimates, based on standard statistical formulae, which take into account the complexity of the sample design, the estimated proportion, the number of survey respondents and the size of the population. Generally, the more aggregated the results the lower the standard error, giving the estimate a greater degree of precision. All published LFS estimates have relative standard errors of 20 per cent or less.

Non-sampling errors are very difficult to quantify and can be minimised by achieving very high response rates, and by a concentration on quality management in the conduct of the survey and coding responses. LFS response rates are currently between 75 and 80 per cent, which is good for a household survey. Research conducted by ONS comparing the LFS with the Census of Population shows that some groups are under-represented in the LFS sample. These include people from households living in London; those renting from a housing association; those in converted or shared accommodation; and those with only one adult, aged 16-19, in the household.

It is possible that some non-sampling error arises in the series of questions on trade unions because of measurement problems. Around a third of the sample are proxy respondents, and the data show that this group are less likely to be union members than those responding on their own behalf.

On the question of coverage of collective agreements, it is known from surveys of employers that only a small proportion of public sector workplaces are not covered, and that these arrangements are generally made at head office level or across many organisations. It is therefore likely that employees who are not union members and who work in small workplaces in the public sector may be unaware that collective bargaining arrangements apply to their organisation. Consequently there may be a downward bias to this measure.