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**New Survey Evidence on Recent Changes  
in UK Union Recognition**

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## **Abstract**

This paper reports results from a recent survey we conducted on the union status of over 650 firms in the private sector of the UK. Compared to earlier periods, the survey shows that since 1997 there has been a slight fall in derecognition, but a relatively large increase in union recognition. Almost 11% of firms report experiencing some new recognition, whilst 7% reported some derecognition. In the late 1980s new recognitions among similar firms were much lower (3% between 1985 to 1990 according to Gregg and Yates, 1991). In our survey, new recognitions were more prevalent in larger firms and in regions and industries where union membership was already high. New recognitions were less likely to have occurred in companies with higher wages, higher productivity and higher capital intensity. The ‘blip up’ in new recognitions is consistent with the idea that the incoming Labour government had a positive effect on the ability of unions to gain recognition, either through the 1999 legislation or more indirectly through changing the political climate.

JEL Classification: J51 (unions), K31 (labour law) L25 (firm performance)

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## 1. Introduction

Union decline in Britain has been very marked, with there being almost continuous year-on-year falls in union presence, however measured, since the late 1970s and certainly up to the late 1990s. A sizable body of research has studied these falls, concluding that the dynamics of entry of new workplaces and firms is crucial to explaining union decline. The received wisdom is that unionization rates have fallen rapidly as unions have failed to achieve union recognition status in newly set up places of work (Machin, 2000). At the same time, new recognition or derecognition in existing workplaces and differential closure of union workplaces, are, at least in the periods studied, seen to be much less important.

In this paper we try to shed some additional light on these questions, looking at new evidence on changes in union status in recent years. The period since 1997 is interesting for at least two reasons. First, the secular decline in union membership seems to have levelled off (see Figure 1). Secondly, this aggregate levelling off coincided with the election of the Labour government in 1997 - just as the start of the long decline in unionisation coincided with the defeat of the last Labour administration in 1979.

Our new evidence comes from a survey of a large number of firms, operating across all sectors of the UK private economy, which was undertaken in 2002. The results that emerge are highly suggestive of a break from the patterns of the previous twenty years or so. Indeed, our survey isolates much more new recognition going on in the five years between 1997 and 2002 than was found in a similarly constructed survey of firms relating to the period between 1985 and 1990. By contrast, the proportion of firms experiencing derecognition is similar across these two time periods.

The period we consider in this paper marks a possible shift in the recent history of industrial relations in the UK. Throughout the 1980s a range of anti-union legislative measures were introduced by Conservative Governments and these seemed to have a particularly adverse effect on recognition in establishments set up after 1979 (Disney, Gosling and Machin, 1995). The 1997 election of the New Labour Government marked a break from the anti-union Conservative period. In particular, in 1999 the Government legislated to introduce the Employment Relations Act which made provision for a statutory recognition procedure.

The 1999 Employment Relations Act (ERA) mandates recognition in cases where a majority of workers want it, allowing for ballots to determine the strength of union support. However, the real goal of the legislation was to encourage the voluntary settlement of recognition disputes between employers and unions, and parties were encouraged to withdraw from the

formal procedure and achieve a voluntary agreement at several stages. As Wood, Moore and Ewing (2003) point out the true importance of the legislation is that it “transforms any negotiations about recognition they [unions] may have with employers, since both sides know that the union can resort to the legal machinery” (page 119).

Gall (2004) uses a variety of data sources to consider how the legal and other environmental changes from the late 1990s onwards have influenced trade union recognition between 1995 and 2002. The author finds a small growth in the number of recognition agreements between 1994 and 1998 and then a very marked growth from 1999 onwards. Gall’s data is somewhat limited since it relies in part on the *Trade Union Trends* surveys which do not cover all unions; these are supplemented by trade union records which are often incomplete. It is therefore extremely useful to try to validate Gall’s findings using data from a representative survey of firms.

In both our survey and the work by Gall (2004) it is difficult to pin-point precisely the impact of legislative factors from other changes. Gall (2004) points to evidence of a number of changes in the general industrial relations environment over the period of interest. Dibb, Lupton and Alsop (2002) indicate a fall in the extent to which employers regard unions as ‘damaging’ to industrial relations. This is likely to be related to an acceptance of the ‘business case’ for unionism where employee involvement is seen as beneficial (or at least, not harmful) to the overall performance of the enterprise. In addition, the public standing of unions has increased; unions are consulted more often than at any time in recent years and both the public and employers appear to be more sympathetic to the new style of ‘partnership’ unionism.

Although it is not possible to pinpoint the impact of the legal change precisely, it is clear that the new legislation has gone hand-in-hand with an increased commitment to securing recognition by unions. In a survey of unions conducted by Wood, Moore and Ewing (2002), and also discussed in Moore, Wood and Willman (2003), two-thirds of those with significant recognition stated they had increased their campaigning between 1997 and 2000. The timing of these campaigns indicates a link with the legislation. A parallel survey of 400 private sector employers reveals that of 12 percent of workplaces experienced recognition campaigns between 1995 and 2000, and of these 17 percent were conducted in the second half of 1999 and 41 percent were in the first half of 2000. In addition, the findings from our survey point to an increase in recognition, but no parallel change in derecognition; this encourages us to believe that the legislation itself may have been important.

The paper is structured as follows. In Section 2 we discuss the survey, detailing how we were able to sample firms across the whole size distribution and across the whole economy, and also presenting some simple descriptive statistics on the nature of the survey respondents. Section 3 presents the main results from the survey, drawing comparisons with earlier surveys, and looking at the economic characteristics of firms that did and did not change union status in the recent past. Section 4 concludes and draws implications for current patterns of unionization in the UK economy.

## **2. The Survey**

### **2.1 Sampling Frame and Survey Implementation**

The survey was conducted in 2002 and the sampling frame used was the FAME (Financial Analysis Made Easy) data source. FAME consists of all registered UK firms (about 2.5 million per year). We randomly selected 3,500 firms who had more than 50 employees (on 1<sup>st</sup> January 2002), found the address of the Human Resources (HR) director or equivalent and mailed out surveys. We re-contacted non-respondents up to three times. Our questionnaire (see Annex 1) covered aspects of current unionism (both density and coverage) and asked about recognition changes since 1997. The design of the survey means the sample, both respondents and non-respondents, can be matched with information on the firm from the FAME data. This provides details on employment, industry, region and many measures of financial performance. This data can be used to investigate characteristics of firms that are associated with unionism and changes in union recognition.

Our data collection technique is similar to that used by Gregg and Yates (1991). Gregg and Yates used the EXSTAT database of the accounts of public companies to generate their sample and then issued a survey in 1990 asking about changes in recognition in the periods 1980-1984 and 1985-1989. Given the similarity of approach it therefore seems legitimate to compare our results with those obtained in this earlier paper to investigate changes over time. Our sample frame covers a somewhat wider range of firms, as EXSTAT includes only stock market listed firms. One potential problem with the FAME database is that (unlike EXSTAT) it contains both consolidated and non-consolidated accounts. To avoid double counting we used subsidiary data if

it was available and dropped the consolidated accounting information. If we had only partial subsidiary information we used only the consolidated accounts.<sup>1</sup>

## 2.2 Descriptive Statistics

Table 1 reports mean values of all the main variables we have extracted from FAME for respondents and non-respondents to the survey.<sup>2</sup> This enables us to check if the firms for which we have union data are representative of the full random sample of firms who were included in the initial sample. Although larger firms and those in the non-service sectors were slightly more likely to answer, the only statistically significant difference (at the 5% level on a two tailed significance test) is that firms in agriculture, mining and utilities are slightly more likely to answer, with these firms contributing 5% to the sample of respondents compared with 3.5% in the same of non-respondents. As such, the responses seem to be broadly representative of larger FAME firms. The responding firms had, on average, about 3,000 employees, paid average salary costs of £29,000 and grew by 9% a year between 1996 and 1998.<sup>3</sup> Around 40% are manufacturing and construction firms, about half are in the rest of the service sector and the remainder are in agriculture, mining and the utilities.

In terms of the level of union presence, 48% of firms had some sort of recognition in 2002. Figures 2 and 3 show the distribution of union density and coverage across the firms in our sample. Over a third of firms had no union members at all (Figure 2). Of the firms with some recognition, coverage rates are spread relatively uniformly (Figure 3).

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<sup>1</sup> We also checked that all our results were robust to using only the consolidated accounts data.

<sup>2</sup> The initial 3,500 sampling frame included both consolidated and non-consolidated accounts. After dropping the firms which could result in double-counting there was a sample of 2,611 potentially usable firms and these are included in Table 1. 947 firms answered the questionnaire from the 3,500, a response rate of 27%. This is a better response rate than a typical postal survey and was partly due to our persistence in following up non-responders up to three times. Of the 2,611 possible non-overlapping responses there were 708 firms who answered the questionnaire (27%). Even among the respondents, there were some further difficulties with missing values and some inconsistent responses. In order to have good information on changes in recognition status, the firms must provide valid and consistent answers to question 2 (“Current recognition status”) question 5 (“Any new recognition”) and question 6 (“Any new derecognition”); these restrictions further reduce the sample to 652, as shown in Table 2.

<sup>3</sup> Employment growth is defined based on the number of employees recorded in the FAME data and is high in the table, largely due to some large outliers increasing the average. The median annual employment growth is 5.2% for those who replied to the survey and 5.4% for non-respondents.

### **3. Survey Results**

#### **3.1 Changes in Union Recognition**

Table 2 examines changes in union recognition over time by comparing the new survey findings with those from Gregg and Yates (1991). In the new survey (column (1)) almost 11% of firms reported at least some new recognition since 1997. This was mostly limited recognition in some of the firms' workplaces (8.9%), but there were also some new recognition across the entire firm (1.8%). This is a much larger proportion of new recognitions than in Gregg and Yates' (1991) analysis of firm-level unionization in the 1980s. They found only 3% of their sample of firms experienced new recognition between 1985 and 1990 and only 1.8% between 1980 and 1984. By contrast, the incidence of derecognition is similar in the new survey data: 8.4% of firms reported whole or incomplete derecognition in the late 1980s in the Gregg-Yates survey as compared to 7.2% in the new survey.<sup>4</sup>

#### **3.2 Comparisons with Other Sources**

These trends are broadly comparable with those found in Gall (2004) who also indicates a strong increase in new recognition, particularly from 1999 onwards. Gall, however, finds a decline in the number of derecognitions, from on average 50 derecognitions a year between 1989 and 1997 and less than 11 per year from 1998 onwards. As Gall admits his data is 'self-selecting', in that the recognitions and derecognitions he observes are not based on representative samples, the collection of consistent data on recognition changes is one of the motivations behind this study.

Our findings can also be compared with the 1990-1998 Workplace Employee Relations Survey (WERS) panel, which along with the other WIRS/WERS surveys has been a source for many discussions of trade union decline (e.g. Disney, Gosling and Machin, 1994 and Machin, 2000). However, the WERS data is based on somewhat different sampling criteria than our survey. It is a sample of establishments; in contrast, the FAME data is at the firm level; it includes both public and private sector establishments, unlike FAME which by construction is focused on the private sector. The final major difference concerns the number of employees. The

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<sup>4</sup> The Gregg and Yates sample of firms is similar to our own (the medians of firm size are extremely well matched at 781 in Gregg and Yates compared to 771 in our data), so the difference in new recognitions does not appear to be due to differential sample composition. The economy grew faster in the late 1980s than the late 1990s so differential business cycle effects are unlikely to account for the difference in recognition changes.

FAME data we use is for firms with over 50 employees. The earlier WIRS data (1980, 1984, and 1990) used a sample frame of establishments with 25 or more employees, while WERS 1998 reduced this limit to 10 employees

Information in WERS enables us to limit the sample to private sector firms. On this basis it appears that just 4 percent of workplaces newly recognised unions between 1990 and 1998 while 5 percent experienced derecognition over this period<sup>5</sup>. At face value, this indicates that the recent rise in recognition we observe is a new phenomenon. However, it should be noted that due to the differences in the sample composition, evaluating changes across time are not as powerful on this basis as the comparisons are with Gregg and Yates.

### 3.3 Firm Characteristics and Union Recognition

Table 3 examines differences in firm characteristics by recognition status. Most of the variables are in natural logarithms so the differences can be read in percentage terms. Many of the well known findings in the literature on union status are reproduced in our new survey<sup>6</sup>. Union recognition is significantly more likely in large firms, and amongst those with low profitability and low productivity (value added per head is about 15 log points lower in recognised firms). The Table also shows what is by now a well known negative correlation between union status and employment growth (e.g. Blanchflower et al, 1991, Machin and Wadhvani, 1991, and Bryson, 2004) and also a negative association of unionisation with capital intensity.

Perhaps the only real surprise in Table 3 is that wages are significantly *lower* amongst unionised firms. Whilst surprising given the large literature showing there to be a positive wage premium linked to recognition (see Blanchflower and Bryson, 2003, for a summary of recent evidence on the union premium in the UK) this is likely to be due to the fact that union status is correlated with skills which we do not measure directly in firm-level data. The lower fixed capital intensity in union firms (25 log points) is probably mirrored by lower human capital intensity.<sup>7</sup>

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<sup>5</sup> It is not possible to limit the sample to establishments where the total firm size is greater than 50 employees due to the way this information is grouped. However limiting the sample to establishments in firms with over 100 employees does not change this result.

<sup>6</sup> For an up to date discussion of the relationship between union recognition and firm characteristics see Metcalf (2005)

<sup>7</sup> We also explored further the association of unionisation with firm characteristics using union coverage instead of union recognition. A lot of the differences come from a contrast between the zero coverage and positive coverage firms. For example, value added per worker is 15% lower for firms with 1-9% coverage as compared to those with no covered workers. But there is no clear fall of productivity as coverage rises past this point.

### 3.4 Characteristics of Firms with Changing Union Recognition Status

The first six columns of Table 4 compares the characteristics of firms which have experienced new recognition with firms which have had no change in recognition status (and were non-union initially). The last six columns repeat the exercise for derecognition compared with those firms who had no change (and were unionised initially). Our most marked finding in Table 2 was the extent of the increase in union recognition since 1997. New recognition is most likely among larger firms, firms with lower turnover per employee and firms with lower assets per employee. In terms of industrial and regional profile, new recognitions are most likely in manufacturing (57% of new recognitions are in this sector compared to 22% of the non-union sample). There is also a regional dimension with new recognitions being significantly more frequent in the North West, West Midlands, South East and Northern Ireland. The appearance of the South East in this group is particularly noticeable as evidence points towards a persistent North–South divide in the extent of unionism (see Table 3 here and Machin, 2004).

The results for derecognition in columns (7) through (12) of Table 4 show less striking patterns. Of the initially unionised firms it tends to be the smaller ones which experienced derecognition, and also those who have lower wages. Derecognition is more common in London. A significantly higher proportion of firms obtaining derecognition (relative to unionised firms who do not change status) are in real estate and business services industries; this group of firms also had significantly fewer recognitions (compared to firms who remained non-unionised since 1997).

We have investigated these results further in a multivariate context so as to explore which of the reported correlations are most important. We run probit models of new recognition and derecognition against lagged values of the firm's employment, wages, productivity, capital intensity, two digit industry dummies region, ownership characteristics and an indicator of whether the firm is a new firm. The results are reported in Table 5 (recognition in column (1) and derecognition in column (2)). The clearest result that emerges relates to firm size. Larger firms are significantly *more* likely to have experienced new recognitions and significantly *less* likely to have experienced derecognition. There is also a negative association of capital intensity with new recognition. Higher wage firms are significantly less likely to derecognise.

There are some distinctive industry patterns. New recognitions are more likely to be found in the production section (manufacturing and utilities) and in the Community and Personal sector. There is evidence that derecognition is significantly more likely in Public Administration,

Education and Health. It is possible that this result is driven by derecognition in contracted-out public services – one reason why the public sector unions may be so hostile to these type of reforms.

There is no distinct regional pattern to new recognition or derecognition in Table 5 - only the Northern Ireland dummy is significantly positive for recognition. In contrast to the earlier work stressing cohort effects, there appears to be no significant effect of age on the likelihood of recognition, nor any evidence that foreign ownership matters.

### **3.5 Changes in Recognition and Pre-Existing Levels of Membership in the Firm's Area and Industry**

We would expect the statutory recognition procedure to have a strong association with pre-existing union membership levels. In order for an application for recognition to be accepted by Central Arbitration Committee (CAC) at least 10 percent of workers in the proposed bargaining unit must be members of the relevant union. Following this, negotiation about the bargaining unit occurs. When this is agreed or determined by the CAC, recognition can be granted by the CAC if more than half of the agreed bargaining unit are members of the union; otherwise a ballot is held in which the union must gain half of the votes and more than 40 percent of the workforce in its favour.

We do not observe pre-existing levels of membership at the firm level (only in 2002), so we look at union density in the environment where the firm is operating (i.e. in the same industry and in the same region). Empirically, we use data from the Labour Force Survey (LFS) to match in union membership data to the firm by three digit industry and region cell. The LFS data can be used to compute union membership rates in 1997 to 1999, the years immediately prior to the introduction of the Employment Relations Act. This variable reflects the chances of a union winning a ballot either because higher density in the cell reflects greater union resources for fighting a campaign (supply) or because higher density reflects a greater “taste” for unionisation in the locality (demand). Note that the cell-level variable is better than simply the firm's pre-existing level of membership. Even if the firm had few union members prior to a recognition battle, being in an industry/area with strong unions should still enhance the probability of new recognition if the law is effective.<sup>8</sup>

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<sup>8</sup> Of course, if we had both firm-level and cell-level density measures than we would be able to investigate these separate channels.

Table 6 repeats the first specifications of the multivariate models of recognition and derecognition found in Table 5, but adds the aggregated initial union density to the model. It is interesting to consider the impact of density in the firm's environment on both recognition and derecognition. We might expect the effect of local union density to have its strongest effect on the recognition decision, but there may also be an impact of the Employment Relations Act on derecognition as employers may invest less effort in derecognising unions if they know there is a legal procedure that may force them to recognise the union again in the future.

In models which do not include one digit industry dummies (column (1) of Table 6) a 10 percentage point increase in union density in the firm's region and industry is associated with a 4.4 percent higher probability of new recognition, and this is strongly significant. In the equivalent model of derecognition, there is a negative, but smaller (in absolute terms), relationship between union density and derecognition, with the coefficient on union density being  $-.27$  in the derecognition equation compared with  $.44$  in the recognition equation. When one digit industry dummies are added to model the significant associations between density and recognition changes remain, but there they are very similar in magnitude, with absolute values of around  $.25$  to  $.26$ .

Unions therefore appear to be achieving recognition in areas where they are already relatively strong as indicated by high existing levels of density (such as manufacturing and the utilities). Although they are disproportionately recognised in larger firms, these firms tend to be less dynamic (i.e. they are in firms with slower employment growth, lower productivity and less investment). So although the new recognitions have helped "stop the rot" of secular decline, these firms may not be the ones that can help unions increase aggregate membership substantially (see Figure 1). We further consider the implications of this in the discussion section below.

### **3.6 Changes in Firm Characteristics when Union Recognition Status Changes**

Finally we look at the association between changes in union status and change in firm characteristics. Panel A of Table 7 reports some simple correlations showing that firms who recognised unions since 1997 experienced much the same changes compared to those with no unions (all the t-statistics in the final column are insignificant at the 5% significance level). This is interesting in that new recognition does not seem to have been detrimental to firm performance.

However, the results for derecognition in Panel B do sometimes indicate a positive relationship with changes in firm characteristics. Derecognising firms tend to have had faster

growth in employment, wages and turnover. The evidence suggests that derecognition is more strongly associated with good firm performance than are new recognitions. This does not necessarily mean that derecognising a union will have a positive causal effect on productivity because there may be many unobservable factors that cause firms to improve productivity and derecognise unions. In addition, the survey structure means that we cannot be completely confident about how the timing of recognition or derecognition matches up with changes in firm characteristics.

Bryson and Gomez (2003) discuss the implications of “switching costs” in deterring individuals’ from changing union membership status. Switching costs could also apply to employer-led changes in recognition, implying that the employer benefits of derecognition would need to be very large to justify the costs of derecognition (in terms of union resistance and public relations). This may be why there is a positive association of derecognition and sales per worker in Panel B of Table 7.

### **3.7 Discussion**

The overall picture that emerges from the new survey is that the post-1997 period has been characterised by a ‘blip up’ in new recognitions. This may well have been related to the change in government and the resultant changes in legislation. But, despite recognition rising, there are several features of the new recognition that are worth stressing. First, they seem to have been more prevalent in sectors where a core of membership already existed so that pre-existing membership levels were able to facilitate the new recognition. The new recognitions were disproportionately concentrated in manufacturing where most (though not all) sub-sectors are in decline. The second key feature of the new recognition is that it does not seem to have had deleterious economic consequences for the firms which have granted new recognition. Indeed, the changes in a range of economic variables were statistically indistinguishable from those in firms with no changes in recognition status. Third, this is not true of the derecognitions that occurred. These do seem to have been associated with improved productivity levels once derecognition was triggered (see also Gregg, Machin and Metcalf, 1993, for earlier evidence on this).

Given the extensive literature that finds union impacts on firm performance (wages, productivity, profits and employment growth – see Metcalf, 2004, for a survey) our findings may at first appear to be a puzzle. One explanation is that unions no longer have much power in the

UK, so even when they attain recognition they have little impact on firm behaviour (e.g. Machin, 2001, finds no significant impact of British union recognition on male wages by the late 1990s and Menezes-Filho, 1997, found no significant impact of unions on profits by the 1990s). Another explanation, however, is that our results are consistent with evidence in the US that has focused on the impact of changes in union status driven by election wins. Freeman and Kleiner (1990) conducted a survey of firms which recognised unions through the Boston and Kansas City National Labor Relations Board districts in the 1980s. They only found modest gains in wage levels from new recognition, especially when they used a matching approach based on managers' appraisals of their nearest competitors. DiNardo and Lee (2004) compare changes in performance in firms who 'just won' recognition with those who 'just lost' union elections between 1984 and 1999. They are unable to find statistically significant effects on employer wages, employment, output or productivity.

In summary, U.S. studies that exploit changes in union status to look at unions and firm performance have not uncovered large causal effects of unions on firm behaviour. Our study is in line with these results. This may be because more recent recognitions in the UK and US since 1980 have simply conferred less bargaining power to unions. This interpretation is supported by Stewart (1995) who found no union wage premium for firms younger than 6 years old in the 1990 Workplace Industrial Relations Survey. Alternatively, it may be that the older literature comparing simple correlations of the level of union status with the level of firm outcomes is misleading because of the plethora of other factors correlated with the level of unionisation. In this case the importance of unions for having an impact on economic performance might have been exaggerated, even in the days when unionisation was very high.

#### **4. Conclusions**

In this paper we have described a new union survey we administered in 2002. Relative to studies of changes in union recognition arrangements undertaken in earlier time periods, we find a higher incidence of new recognitions in the periods we study. 11% of surveyed firms newly recognised unions between 1997 and 2002, as compared to only 3% between 1985 and 1990. At the same time, there was a very similar proportion of derecognitions in both periods (7% in the late 1990s compared to 8% in the late 1980s). These recognitions were particularly prevalent among large firm and in sectors where membership levels were already relatively high.

These new survey findings provide something of a double edged sword for union organisers. On the one hand, new recognitions are rising. On the other hand, they are concentrated in places where unions have traditionally been strong and unions are not making much headway in getting into the more dynamic firms which are likely to be the leaders of the future. As Gall (2004) puts it “Large scale redundancies in organisations with recognition, the concentration of recognition campaigns in areas of traditional strength and the continued growth of non-union sectors may suggest that unions in Britain are running very fast to stand still”. However, the new survey evidence we have shown may also offer a glimmer of hope. There has been an increase in new recognitions, but no parallel increase in derecognition rates, which is suggestive that the new union legislation has have been important. This may provide a stepping stone to more new recognitions, perhaps even in hard to reach low unionised sectors.

**Table 1: Mean Values of Variables for Respondents and Non-Respondents**

	Respondents		Non-respondents		Differences	
	Mean	Number of Firms	Mean	Number of Firms	Differences in Means	T-statistic (absolute value) Testing no Difference in Means
Number of employees	3,098	708	3,949	1,903	-852	1.46
Sales (£1000s)	428	703	521	1,886	-93	1.19
Wages (£1000s)	29.01	708	28.81	1,899	.20	0.15
Value added/employment (£1000s)	64.21	683	69.01	1,845	4.71	0.27
Sales / employment (£1000s)	468.23	703	508.91	1,886	-40.67	0.35
Pre-tax profit/employment	32.96	706	35.75	1,898	-2.79	0.17
Total assets /employment (£1000s)	164.74	708	168.60	1,901	3.86	0.07
Employment growth 1996-1998	.090	584	.096	1,588	-.006	0.45
<b>Industry</b>						
Agriculture, mining and utilities	.053	706	.035	1,890	.019	2.19
Manufacturing and construction	.404	706	.390	1,890	.013	0.61
Services	.542	706	.575	1,890	-.032	1.47
At least some recognition	.480	702				

**Notes:**

1. Employees, turnover, average wage and productivity variables are all derived from FAME data.
2. We use data in 1997 unless the firm was born in a later year in which case we use the first year it appeared in FAME.
3. As data from a variety of years is being used all monetary values are deflated to 2002 prices.
4. In all subsequent tables sales, wages, value-added and assets are expressed in £1000s.
5. Value-added is defined as pre-tax profit plus remuneration.

**Table 2: Changes in Trade Union Recognition**

	(1)	(2)	(3)
	1997-2002	1985-1990 (Gregg and Yates)	1980-1984 (Gregg and Yates)
New recognition across the company	1.8	0.6	1.1
New recognition in some workplaces	8.9	2.9	1.1
<b>Any new recognition</b>	<b>10.7</b>	<b>3.5</b>	<b>2.2</b>
No change but unions present	35.3	49.4	57.3
Derecognition in some workplaces	2.6	6.7	1.8
Complete derecognition throughout the company	4.6	1.7	1.1
<b>Any derecognition</b>	<b>7.2</b>	<b>8.4</b>	<b>2.9</b>
Number of Firms	652	478	436

**Notes:**

Cells give percentage of respondents who gave information on recognition changes. Consequently those referring to the Gregg and Yates data differ slightly from those given in the original paper.

**Table 3: Differences in the Firm Characteristics by Recognition Status**

	At least some recognition		No recognition		Differences	
	Mean	Number of firms	Mean	Number of firms	Difference in means	T-statistic (absolute value) Testing no Difference in Means
ln(Employees)	7.20	339	6.08	363	1.12	10.28
ln(Wage)	3.15	339	3.23	363	-.079	2.00
ln(value added/employment)	3.44	331	3.58	347	-.141	2.15
ln(sales/employment)	4.92	338	5.41	359	-.490	6.06
ln(Pre-tax profits/employment)	2.07	280	2.33	298	.260	2.11
Pre tax profits/employment	12.81	338	57.74	362	44.93	1.70
ln(Total assets/employment)	3.36	317	3.63	334	-.274	2.30
Employment growth 1996-1998	.061	283	.120	299	-.057	2.67
<b>Industry</b>						
Agriculture, mining and utilities	.071	339	.036	361	.035	2.06
Manufacturing and construction	.563	339	.258	361	.306	8.66
Services	.366	339	.706	361	-.341	9.60
<b>Region</b>						
North East	.012	337	.030	363	-.018	1.68
North West	.116	337	.055	363	.061	2.90
Yorks and Humber	.080	337	.039	363	.042	2.35
East Midlands	.053	337	.050	363	.004	0.23
West Midlands	.125	337	.052	363	.052	3.41
East	.092	337	.072	363	.020	0.98
London	.196	337	.333	363	-.137	4.15
South East	.136	337	.215	363	-.078	2.72
South West	.056	337	.063	363	-.007	0.39
Wales	.020	337	.025	363	-.004	0.35
Scotland	.065	337	.055	363	.010	0.56
Northern Ireland	.047	337	.011	363	.036	2.91

**Notes:**

1. Employees, turnover, average wage and productivity variables are all derived from FAME data.
2. We use data in 1997 unless the firm was born in a later year in which case we use the first year it appeared in FAME.
3. As data from a variety of years is being used all monetary values are deflated to 2002 prices.
4. In all subsequent tables sales, wages, value-added and assets are expressed in £1000s.
5. Value-added is defined as pre-tax profit plus remuneration.

**Table 4: Differences in Firm Characteristics by Recognition Status**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Some new recognition		No change and non union initially		(3) - (1) Some new recognition- No change (non-union initially)		Some de- recognition		No change and union initially		(9) - (7) Some de- recognition - No change (union initially)	
	Mean	Number of firms	Mean	Number of firms	Difference in means	T-statistic (absolute value) for difference	Mean	Number of firms	Mean	Number of firms	Difference in means	T-statistic (absolute value) for difference in means
ln(Employees)	7.11	70	6.14	352	.965	4.90	6.73	47	7.21	230	-.481	2.17
ln(Wage)	3.08	70	3.22	352	-.145	1.85	2.99	47	3.18	230	-.182	2.60
ln(Value added/ employment)	3.44	67	3.57	336	-.138	1.07	3.34	42	3.41	228	-.071	0.61
ln(Sales/ employment)	4.86	69	5.37	348	-.511	3.32	5.06	47	4.93	230	.138	0.95
ln(Pre-tax profits/ employment)	2.15	57	2.31	291	-.160	0.69	1.94	38	2.00	189	-.057	0.24
ln(Total assets/ employment)	3.18	66	3.61	326	-.433	2.13	3.50	46	3.34	213	.159	0.63
Employment growth 1996- 1998	.079	60	.116	290	-.037	1.25	.143	39	.057	190	.085	1.58
<b>Industry</b>												
Agriculture and Fishing	0	70	.003	350	.003	0.45	.022	46	.009	230	.013	0.78
Mining	.029	70	.020	350	.009	0.45	.022	46	.026	230	-.004	0.17
Manufacturing	.571	70	.223	350	.349	6.17	.413	46	.482	230	-.070	0.86
Utilities	.029	70	.006	350	.023	1.80	0	46	.043	230	-.043	1.44
Construction	.014	70	.060	350	-.046	1.57	.065	46	.056	230	.009	0.23

Retail, Wholesale and Repairs	.114	70	.306	350	-.191	3.14	.174	46	.139	230	-.035	0.61
Hotels and catering	0	70	.009	350	-.009	0.78	.022	46	.017	230	.004	0.20
Transport	.071	70	.060	350	.011	0.36	.043	46	.091	230	-.047	1.07
Finance	.014	70	.060	350	-.046	1.57	0	46	.004	230	-.004	0.45
Real estate and business services	.100	70	.234	350	-.135	2.52	.217	46	.082	230	.135	2.75
Public admin, education and health	.014	70	.003	350	.011	1.27	0	46	.004	230	-.004	0.45
Community and personal services	.043	70	.017	350	.026	1.36	.022	46	.043	230	-.022	0.67

**Notes:**

1. Employees, turnover, average wage and productivity variables are all derived from FAME data.
2. We use data in 1997 unless the firm was born in a later year in which case we use the first year it appeared in FAME.
3. As data from a variety of years is being used all monetary values are deflated to 2002 prices.
4. In all subsequent tables sales, wages, value-added and assets are expressed in £1000s.
5. Value-added is defined as pre-tax profit plus remuneration.

**Table 5: Probit Regressions Associating New Recognition and Characteristics**

	(1)	(2)
	Probit models of new recognition Sample of firms initially without unions	Probit model of derecognition Sample of firms initially with unions
ln (Employment)	.056 (4.26)	-.059 (3.63)
ln (Wage)	-.027 (0.52)	-.235 (3.03)
ln (Value added/ employment)	.081 (2.00)	.029 (0.51)
ln(Total assets/ employment)	-.039 (2.70)	.016 (0.92)
<b>Industry</b>		
Agriculture, Forestry, Fishing and Mining	.418 (1.77)	.305 (1.44)
Manufacturing	.334 (2.51)	.010 (0.13)
Utilities	.580 (1.68)	
Retail, Wholesale and Repairs, Hotel and Catering	.059 (0.56)	-.066 (0.66)
Transport	.168 (1.05)	-.028 (0.34)
Public Admin, Education and Health	.061 (0.55)	.354 (2.33)
Finance, Real Estate and Business Services	.191 (1.06)	-.099 (1.22)
Community and personal services	.602 (2.46)	.305 (1.44)
<b>Region</b>		
North West	.209 (1.40)	-.120 (1.41)
Yorkshire and Humberside	-.058 (0.66)	-.063 (0.53)
East Midlands	.064 (0.52)	-.028 (0.19)
West Midlands	.235 (1.55)	-.101 (1.01)
East	.077 (0.65)	-.055 (0.45)
London	-.040 (0.47)	-.029 (0.21)
South East	-.076 (1.00)	-.052 (0.40)
South West and Wales	-.031 (0.34)	-.121 (1.64)
Scotland	.070 (0.55)	-.135 (1.79)
Northern Ireland	.444 (2.02)	
Foreign Owned	-.027 (0.75)	-.055 (1.17)
Unconsolidated dummy	.083 (2.09)	-.062 (1.32)
New firm (since 1996)	-.019 (0.41)	-.014 (0.22)
Sample	377	251
Log Likelihood	-120.61	-84.24

**Notes:**

1. Marginal effects from probit models are reported.
2. t-statistics are in parentheses.
3. Reference (omitted) categories are Construction for Industry and North East for Region.
4. Compared with Table 4 some categories are combined to avoid perfect prediction (e.g. in column (2) manufacturing and utilities are combined and Northern Ireland has been combined with Scotland )

**Table 6: Changes in Recognition and Union Membership**

<b>Panel A</b>	Probit models of new recognition Sample of firms initially without unions	
	(1)	(2)
Union density in industry*region average 1997-1999	.440 (4.08)	.263 (2.34)
1 digit industry dummies	No	Yes
Sample	377	377
Log Likelihood	-129.18	-118.26
<b>Panel B</b>	Probit models of derecognition Sample of firms initially with unions	
	(1)	(2)
Union density in industry*region average 1997-1999	-.268 (2.04)	-.254 (2.12)
1 digit industry dummies	No	Yes
Sample	251	251
Log Likelihood	-90.96	-82.08

**Notes:**

1. Union density is the mean density by 3-digit industry and 1-digit region, averaged over the years 1997-1999. This data was obtained from the Labour Force Survey 3<sup>rd</sup> quarter over these years.
2. All regressions control for ln(employment), ln(wage), ln(value added/employment), regional dummies and dummies denoting foreign owned, unconsolidated and new firm.
3. The t-statistic for the union density variable is based on standard errors which take account of the clustering between region by 3 digit industry cell.

**Table 7: Changes in Firm Characteristics by Recognition Changes 1997-2002**

<b>Panel A: New Recognition</b>						
Annualised Changes	Some new recognition		No change and non union initially		Differences (new recognition compared with no change and non union initially)	
	Mean	Number of firms	Mean	Number of firms	Difference in means	T-statistic (absolute value) Testing no Difference in Means
ln(Employees)	.095	69	.049	346	-.046	1.20
ln(Wage)	.013	69	.040	346	-.027	1.42
ln(Productivity)	-.010	68	.024	338	-.034	0.93
ln(Sales/employment)	.003	68	.011	344	-.008	0.31
ln(Pre-tax profits/employment)	-.067	62	-.000	316	-.067	0.79
Pre-tax profits/employment	-.890	68	-8.05	345	7.16	0.26
Ln (Sales)	.076	68	.069	344	.007	0.21
ln(Total assets/employment)	-.003	66	.059	332	-.062	1.26

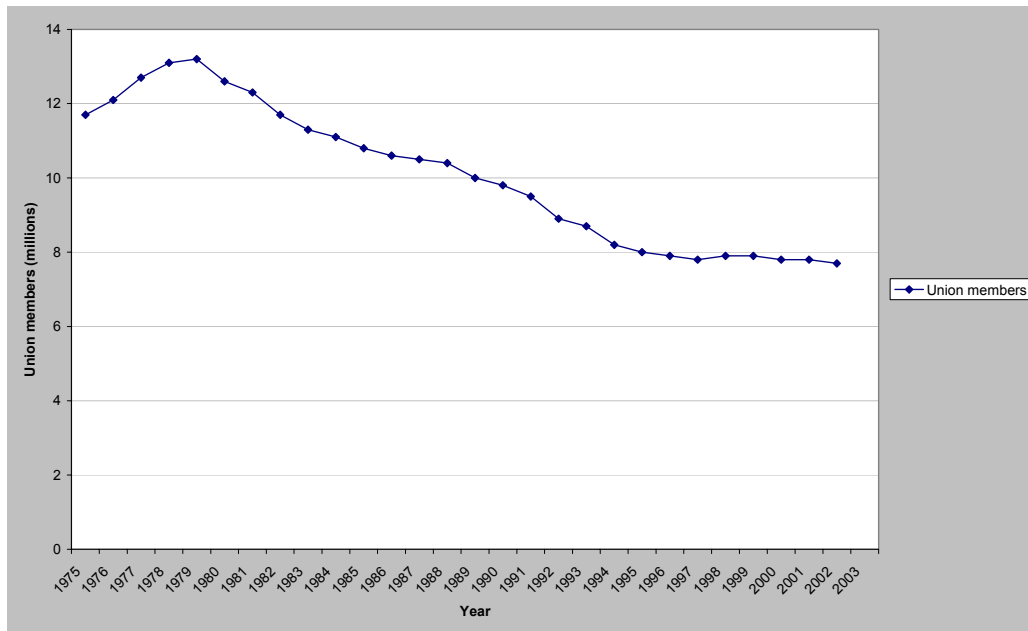
  

<b>Panel B: Derecognition</b>						
Annualised Changes	Some derecognition		No change and non union initially		Differences (derecognition compared with no change and union initially)	
	Mean	Number of firms	Mean	Number of firms	Difference in means	T-statistic (absolute value) Testing no Difference in Means
ln(Employees)	.041	45	.058	370	.072	1.67
ln(Wage)	.073	45	.031	370	.049	3.00
ln(Productivity)	.019	42	.018	364	.004	0.12
ln(Sales/employment)	.070	45	.003	367	.064	2.76
ln(Pre-tax profits/employment)	-.032	37	-.009	341	.036	0.38
Pre-tax profits/employment	-7.65	45	-6.778	368	-11.02	1.47
Ln (Sales)	.105	45	.066	367	.112	2.92
ln(Total assets/employment)	-.012	41	.055	357	-.062	0.61

**Note:**

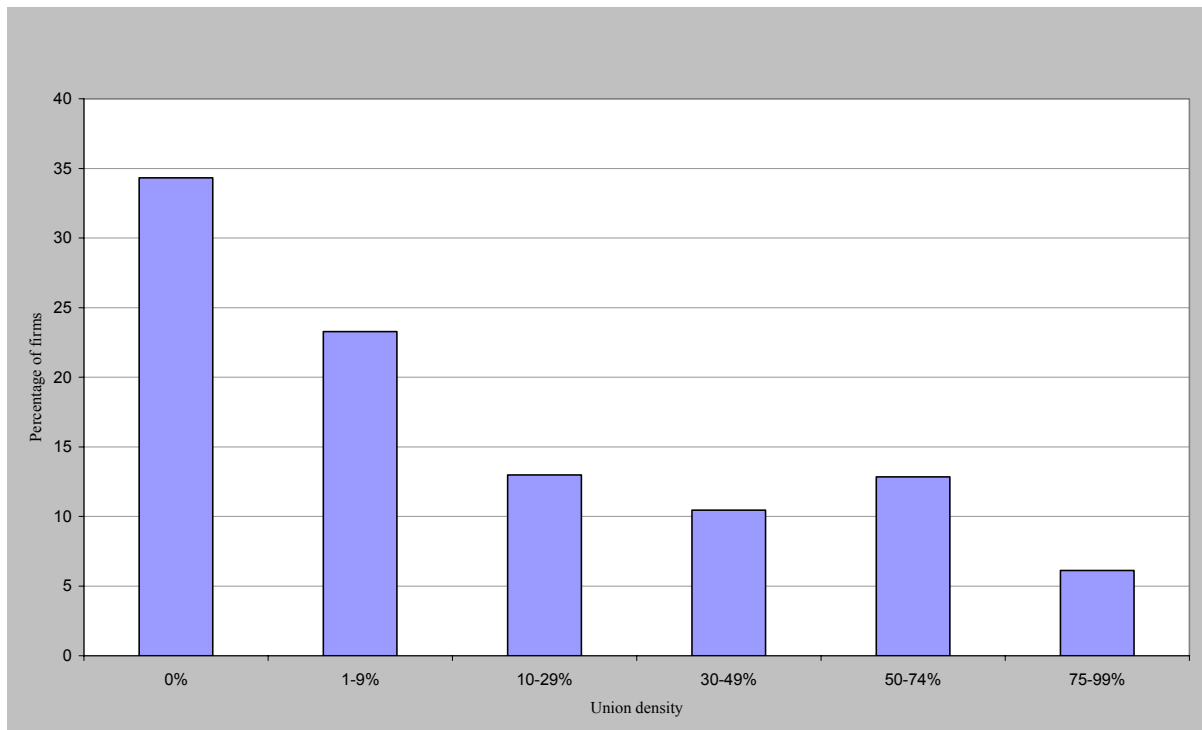
1. Changes are annualised.
2. No data is lost as if data if firm does not exists in 1997 or 2002. We use the annual change in whatever years available.
3. 51% of observations are based on 2002-1997 changes, 33% use 2001-1997.

**Figure 1: Union membership, 1975-2003**

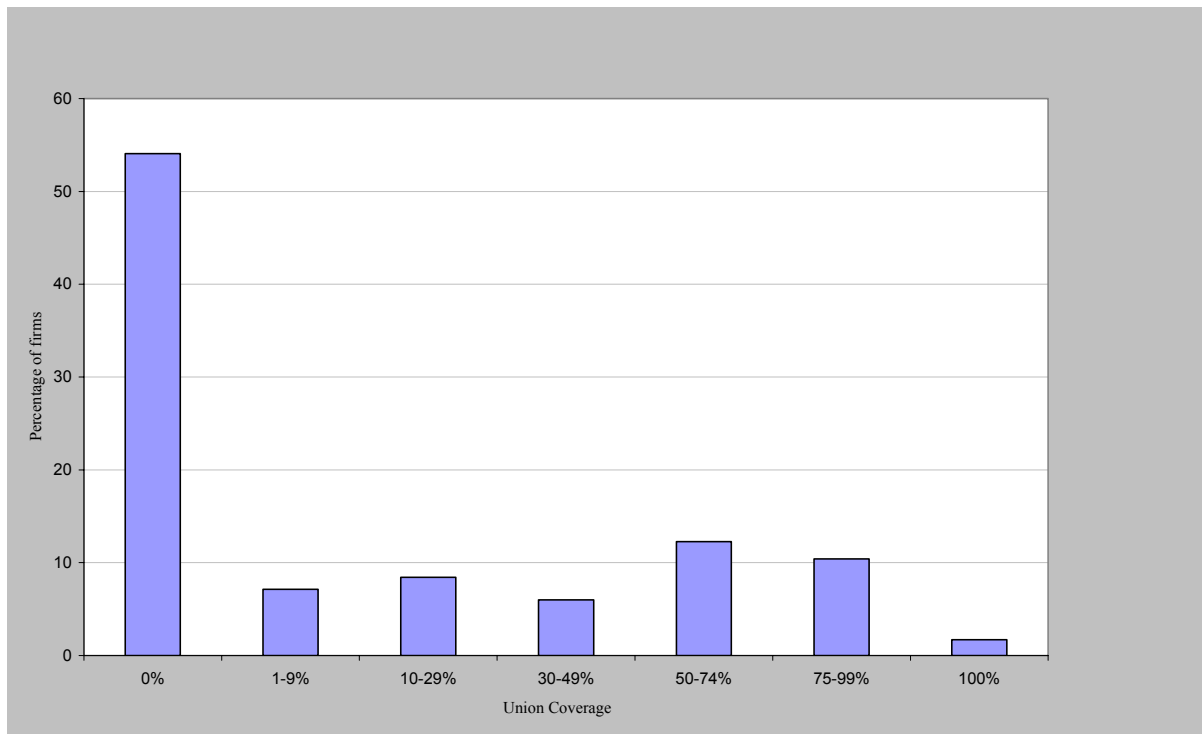


Source: Certification Officer Data, published by Department of Trade and Industry

**Figure 2: Union Density in the Survey**



**Figure 3: Union Coverage in the Survey**



Annex 1 Survey Form

**UK Company Performance Survey**

**PLEASE ANSWER ALL THE QUESTIONS TO THE BEST OF YOUR ABILITY  
AND RETURN THIS TO US IN THE PRE-PAID ENVELOPE OR BY FAX**

Q1 How many workplaces does your company have in the UK?

Please write in

Q2 In how many of these workplaces does the company recognise trade unions for pay bargaining?

- |              |                            |
|--------------|----------------------------|
| All of them  | <input type="checkbox"/> 1 |
| Most of them | <input type="checkbox"/> 2 |
| Some of them | <input type="checkbox"/> 3 |
| None of them | <input type="checkbox"/> 4 |

Q3 Roughly what percentage of all your UK employees, including managers, are members of a trade union or independent staff association – whether recognised for pay bargaining or not?

- |        |                            |
|--------|----------------------------|
| None   | <input type="checkbox"/> 1 |
| 1-9%   | <input type="checkbox"/> 2 |
| 10-29% | <input type="checkbox"/> 3 |
| 30-49% | <input type="checkbox"/> 4 |
| 50-74% | <input type="checkbox"/> 5 |
| 75-99% | <input type="checkbox"/> 6 |
| 100%   | <input type="checkbox"/> 7 |

Q4 Roughly what percentage of your UK employees, including managers, have their pay set through collective bargaining?

- |        |                            |
|--------|----------------------------|
| None   | <input type="checkbox"/> 1 |
| 1-9%   | <input type="checkbox"/> 2 |
| 10-29% | <input type="checkbox"/> 3 |
| 30-49% | <input type="checkbox"/> 4 |
| 50-74% | <input type="checkbox"/> 5 |
| 75-99% | <input type="checkbox"/> 6 |
| 100%   | <input type="checkbox"/> 7 |

Q5 Has your company ceased to recognise unions for pay bargaining in the last 5 years?

- |  |                            |
|--|----------------------------|
| Yes, we have ceased to recognise unions for pay bargaining in some of our workplaces | <input type="checkbox"/> 1 |
| Yes, we have ceased to recognise unions for pay bargaining across the company        | <input type="checkbox"/> 2 |
| No   | <input type="checkbox"/> 3 |

Q6 Has your company begun to recognise unions for pay bargaining in the last 5 years?

- |   |                            |
|---|----------------------------|
| Yes, we have started to recognise unions for pay bargaining in some of our workplaces | <input type="checkbox"/> 1 |
| Yes, we have started to recognise unions for pay bargaining across the company        | <input type="checkbox"/> 2 |
| No  | <input type="checkbox"/> 3 |

**Definitions**

**‘Collective bargaining’** is negotiation between union(s) and the employer over pay, whether at workplace, company, sectoral or national level. **‘Company’** is the organisation referred to in the covering letter, consisting of one or more workplaces. To **‘recognise’** a union for pay bargaining is to grant it the right to negotiate over pay on behalf of some or all of the employees in the company. **‘Workplace’** refers to premises on a single site. **‘Union’** includes independent staff association.

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